PL/SQL

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Table of Contents

Color Codes: English Query, User Inserts, Comments, Output

Project Description: My project encompasses many components on an NBA team: the general manager, the coach, the players, the players going into the draft, the rookies, its record, its money, the city, the state and the team itself. In addition, I cover some information regarding the player and rookie, which includes his college, his position, what draft pick he was, whether he was an All-Star, the money he makes, and his statistics.

Block 10: Use a package to insert missing players from the top 14. Then display the top 14 in order and the rookies in these statistical categories: 15+ PPG, 7+ RPG, 5+ APG, 35+% 3PT%, and 50+% FG%. Pages: 97 - 108

Block 11: Use update triggers to update new coaches, then display the coaching information of a user-inputted team number. Pages: 108 - 116

Block 12: Display Jimmy Butler's information and the teams that can pay him $30M, ones that can have another max slot too, and the information about the cities that can pay him. Pages: 116 - 125

```
drop table drafteestats;

drop table draftees;

drop table college;

drop table nonrookiestarterstats;

drop table nonrookiestarter;

drop table rookiestats;

drop table rookies;

drop table coach;

drop table generalmanager;

drop table teamrecord;

drop table teammoney;

drop table team;

drop table city;

drop table state;

drop table draftteam;

CREATE TABLE DraftTeam (

tNum int NOT NULL PRIMARY KEY,

City varchar(20), Team varchar(15),
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Draft_Range varchar(15),
Players_UCont int,
Conf varchar(15)
);
Insert Into DraftTeam Values(5,'Memphis','Grizzlies','Lottery',9,'Western');
Insert Into DraftTeam Values(10,'Los Angeles','Lakers','Lottery',5,'Western');
Insert Into DraftTeam Values(7,'Brooklyn','Nets','Mid-First',11,'Eastern');
Insert Into DraftTeam Values(11,'Houston','Rockets','Late-First',12,'Western');
Insert Into DraftTeam Values(30,'Portland','Trailblazers','Mid-First',8,'Western');
Insert Into DraftTeam Values(1,'Utah','Jazz','Mid-First',10,'Western');
Insert Into DraftTeam Values(17,'Boston','Celtics','Late-First',13,'Eastern');
Insert Into DraftTeam Values(13,'Orlando','Magic','Lottery',12,'Eastern');
Insert Into DraftTeam Values(2,'Los Angeles','Clippers','Mid-First',6,'Western');
Insert Into DraftTeam Values(22,'Philadelphia','76ers','Late-First',8,'Eastern');
Insert Into DraftTeam Values(3,'Atlanta','Hawks','Top 5',6,'Eastern');
Insert Into DraftTeam Values(4,'Charlotte','Hornets','Lottery',10,'Eastern');
Insert Into DraftTeam Values(6,'Chicago','Bulls','Top 5',8,'Eastern');
Insert Into DraftTeam Values(8,'Cleveland','Cavaliers','Top 5',11,'Eastern');
Insert Into DraftTeam Values(9,'Dallas','Mavericks','Lottery',6,'Western');
Insert Into DraftTeam Values(12,'Denver','Nuggets','Late-First',10,'Western');
Insert Into DraftTeam Values(14,'Detroit','Pistons','Mid-First',8,'Eastern');
Insert Into DraftTeam Values(15,'Golden State','Warriors','Late-First',6,'Western');
Insert Into DraftTeam Values(16,'Indiana','Pacers','Late-First',7,'Eastern');
Insert Into DraftTeam Values(18,'Miami','Heat','Mid-First',12,'Eastern');
Insert Into DraftTeam Values(19,'Milwaukee','Bucks','Late-First',8,'Eastern');
Insert Into DraftTeam Values(20,'Minnesota','Timberwolves','Lottery',9,'Western');
Insert Into DraftTeam Values(21,'New Orleans','Pelicans','Lottery',11,'Western');
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Insert Into DraftTeam Values(23,'New York','Knicks','Top 5',7,'Eastern');
Insert Into DraftTeam Values(24,'Oklahoma City','Thunder','Late-First',9,'Western');
Insert Into DraftTeam Values(25,'Phoenix','Suns','Top 5',10,'Western');
Insert Into DraftTeam Values(26,'Sacramento','Kings','Lottery',11,'Western');
Insert Into DraftTeam Values(27,'San Antonio','Spurs','Mid-First',10,'Western');
Insert Into DraftTeam Values(28,'Toronto','Raptors','Late-First',10,'Eastern');
Insert Into DraftTeam Values(29,'Washington','Wizards','Lottery',7,'Eastern');

Commit;
CREATE TABLE State (
StateID int NOT NULL PRIMARY KEY,
StateInitial varchar(2),
StateName varchar(15),
NBATeam varchar(3),
Region varchar(15)
);
Insert Into State Values(9,'TN','Tennessee','Yes','Southeast');
Insert Into State Values(8,'CA','California','Yes','West');
Insert Into State Values(7,'NY','New York','Yes','Northeast');
Insert Into State Values(5,'TX','Texas','Yes','South');
Insert Into State Values(49,'OR','Oregon', 'Yes','Northwest');
Insert Into State Values(4,'UT','Utah', 'Yes','West');
Insert Into State Values(3,'MA','Massachusetts', 'Yes','Northeast');
Insert Into State Values(2,'PA','Pennsylvania', 'Yes','Northeast');
Insert Into State Values(6,'FL','Florida', 'Yes','Southeast');
Insert Into State Values(13,'MI','Michigan','Yes','Northeast');
Insert Into State Values(43,'NC','North Carolina', 'Yes','Southeast');
```

```
Insert Into State Values(19,'WA','Washington','No','Northwest');
Insert Into State Values(25,'AZ','Arizona', 'Yes','West');
Insert Into State Values(33,'KY','Kentucky','No','South');
Insert Into State Values(40,'GA','Georgia','Yes','Southeast');
Insert Into State Values(50,'OK','Oklahoma','Yes','Midwest');
Insert Into State Values(47,'VA','Virginia','No','East');
Insert Into State Values(46,'MO','Missouri','No','Midwest');
Insert Into State Values(11,'IL','Illinois','Yes','Northeast');
Insert Into State Values(12,'OH','Ohio','Yes','Northeast');
Insert Into State Values(14,'CO','Colorado','Yes','Midwest');
Insert Into State Values(15,'IN','Indiana','Yes','Northeast');
Insert Into State Values(48,'WI','Wisconsin','Yes','North');
Insert Into State Values(26,'MN','Minnesota','Yes','North');
Insert Into State Values(27,'LA','Louisana','Yes','South');
Insert Into State Values(51,'OT','Ontario','Yes','North');
Insert Into State Values(34,'MD','Maryland','Yes','East');
Commit;

CREATE TABLE City (
CityNumber int NOT NULL PRIMARY KEY,
TeamCity varchar(20),
CityState varchar(2),
Population decimal(12,0),
ProSportsNum int
);
Insert Into City Values(1,'Memphis','TN',646889,1);
Insert Into City Values(2,'Los Angeles','CA',3976322,7);
```

```
Insert Into City Values(3,'Brooklyn','NY',2649000,1);
Insert Into City Values(4,'Houston','TX',2303000,3);
Insert Into City Values(5,'Portland','OR',583776,1);
Insert Into City Values(6,'Utah','UT',186440,1);
Insert Into City Values(7,'Boston','MA',655884,4);
Insert Into City Values(8,'Philadelphia','PA',1580863,5);
Insert Into City Values(9,'Orlando','FL',277173,2);
Insert Into City Values(10,'Atlanta','GA',667560,3);
Insert Into City Values(11,'Charlotte','GA',486290,2);
Insert Into City Values(12,'Chicago','IL',859035,5);
Insert Into City Values(13,'Cleveland','OH',385525,3);
Insert Into City Values(14,'Dallas','TX',1341000,4);
Insert Into City Values(15,'Denver','CO',704621,4);
Insert Into City Values(16,'Detroit','MI',673104,4);
Insert Into City Values(17,'San Francisco','CA',6657982,6);
Insert Into City Values(18,'Indianapolis','IN',872680,2);
Insert Into City Values(19,'Miami','FL',463347,4);
Insert Into City Values(20,'Milwaukee','WI',595351,2);
Insert Into City Values(21,'Minneapolis','MN',422331,4);
Insert Into City Values(22,'New Orleans','LA',393292,2);
Insert Into City Values(23,'New York City','NY',8623000,9);
Insert Into City Values(24,'Oklahoma City','OK',643648,1);
Insert Into City Values(25,'Phoenix','AZ',1626000,4);
Insert Into City Values(26,'San Antonio','TX',1493000,1);
insert into City Values(27,'Sacramento','CA',501901,1);
Insert Into City Values(28,'Toronto','OT',2732000,4);
Insert Into City Values(29,'Washington','MD',702455,4);
```

```
Commit;
CREATE TABLE Team (
TeamID int NOT NULL PRIMARY KEY,
City varchar(20),
Name varchar(20),
State varchar(2),
Conference varchar(15),
CitNum int NOT NULL,
StateNum int NOT NULL,
FOREIGN KEY (CitNum) References City(CityNumber),
FOREIGN KEY (StateNum) References State(StateID)
);
Insert Into Team Values(5,'Memphis','Grizzlies','TN','Western',1,9);
Insert Into Team Values(10,'Los Angeles','Lakers','CA','Western',2,8);
Insert Into Team Values(7,'Brooklyn','Nets','NY','Eastern',3,7);
Insert Into Team Values(11,'Houston','Rockets','TX','Western',4,5);
Insert Into Team Values(30,'Portland','Trail Blazers','OR','Western',5,49);
Insert Into Team Values(1,'Utah','Jazz','UT','Western',6,4);
Insert Into Team Values(17,'Boston','Celtics','MA','Eastern',7,3);
Insert Into Team Values(22,'Philadelphia','76ers','PA','Eastern',8,2);
Insert Into Team Values(2,'Los Angeles','Clippers','CA','Western',2,8);
Insert Into Team Values(13,'Orlando','Magic','FL','Eastern',9,6);
Insert Into Team Values(3,'Atlanta','Hawks','GA','Eastern',10,40);
Insert Into Team Values(4,'Charlotte','Hornets','NC','Eastern',11,43);
Insert Into Team Values(6,'Chicago','Bulls','IL','Eastern',12,11);
Insert Into Team Values(8,'Cleveland','Cavaliers','OH','Eastern',13,12);
Insert Into Team Values(9,'Dallas','Mavericks','TX','Western',14,5);
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Insert Into Team Values(12,'Denver','Nuggets','CO','Western',15,14);
Insert Into Team Values(14,'Detroit','Pistons','MI','Western',16,13);
Insert Into Team Values(15,'Golden State','Warriors','CA','Western',17,8);
Insert Into Team Values(16,'Indiana','Pacers','IN','Eastern',18,15);
Insert Into Team Values(18,'Miami','Heat','FL','Eastern',19,6);
Insert Into Team Values(19,'Milwaukee','Bucks','WI','Eastern',20,48);
Insert Into Team Values(20,'Minnesota','Timberwolves','MN','Western',21,26);
Insert Into Team Values(21,'New Orleans','Pelicans','LA','Western',22,27);
Insert Into Team Values(23,'New York','Knicks','NY','Eastern',23,7);
Insert Into Team Values(24,'Oklahoma City','Thunder','OK','Western',24,50);
Insert Into Team Values(25,'Phoenix','Suns','AZ','Western',25,25);
Insert Into Team Values(26,'Sacramento','Kings','CA','Western',27,8);
Insert Into Team Values(27,'San Antonio','Spurs','TX','Western',26,5);
Insert Into Team Values(28,'Toronto','Raptors','OT','Eastern',28,51);
Insert Into Team Values(29,'Washington','Wizards','MD','Eastern',29,34);

Commit;
CREATE TABLE TeamMoney (
tNum int NOT NULL PRIMARY KEY,
Team varchar(20),
ContPlayers int,
MaxSpot varchar(3),
NumOfMaxSpots int NULL,
Cap_Room decimal(12,0));
Insert Into TeamMoney Values(5,'Grizzlies',9,'No',NULL,0);
Insert Into TeamMoney Values(10,'Lakers',5,'Yes',1,36908013);
Insert Into TeamMoney Values(7,'Nets',11,'Yes',1,48936398);
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Insert Into TeamMoney Values(11,'Rockets',12,'No',NULL,0);
Insert Into TeamMoney Values(30,'Trailblazers',13,'No',NULL,0);
Insert Into TeamMoney Values(1,'Jazz',10,'Yes',1,32701579);
Insert Into TeamMoney Values(17,'Celtics',13,'No',NULL,0);
Insert Into TeamMoney Values(22,'76ers',8,'Yes',1,40431049);
Insert Into TeamMoney Values(13,'Magic',12,'No',NULL,0);
Insert Into TeamMoney Values(2,'Clippers',6,'Yes',2,53939871);
Insert Into TeamMoney Values(3,'Hawks',6,'Yes',1,37513772);
Insert Into TeamMoney Values(4,'Hornets',10,'No',NULL,0);
Insert Into TeamMoney Values(6,'Bulls',8,'Yes',1,39510938);
Insert Into TeamMoney Values(8,'Cavaliers',11,'No',NULL,0);
Insert Into TeamMoney Values(9,'Mavericks',6,'Yes',1,40000000);
Insert Into TeamMoney Values(12,'Nuggets',10,'No',NULL,0);
Insert Into TeamMoney Values(14,'Pistons',8,'No',NULL,0);
Insert Into TeamMoney Values(15,'Warriors',6,'No',NULL,0);
Insert Into TeamMoney Values(16,'Pacers',7,'Yes',1,44209666);
Insert Into TeamMoney Values(18,'Heat',12,'No',NULL,0);
Insert Into TeamMoney Values(19,'Bucks',8,'No',NULL,21520362);
Insert Into TeamMoney Values(20,'Timberwolves',11,'No',NULL,0);
Insert Into TeamMoney Values(21,'Pelicans',11,'No',NULL,23652023);
Insert Into TeamMoney Values(23,'Knicks',7,'Yes',2,72000000);
Insert Into TeamMoney Values(24,'Thunder',9,'No',NULL,0);
Insert Into TeamMoney Values(25,'Suns',10,'No',NULL,21943308);
Insert Into TeamMoney Values(26,'Kings',11,'Yes',1,45999957);
Insert Into TeamMoney Values(27,'Spurs',10,'No',NULL,0);
Insert Into TeamMoney Values(28,'Raptors',11,'No',NULL,0);
Insert Into TeamMoney Values(29,'Wizards',10,'No',NULL,0);
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```
Commit;
CREATE TABLE TeamRecord (
Team varchar(20),
tNum int NOT NULL PRIMARY KEY,
Wins int,
Losses int,
Playoffs varchar(3)
);
Insert Into TeamRecord Values('Grizzlies',5,33,49,'No');
Insert Into TeamRecord Values('Lakers',10,35,47,'No');
Insert Into TeamRecord Values('Nets',7,40,42,'Yes');
Insert Into TeamRecord Values('Rockets',11,52,30,'Yes');
Insert Into TeamRecord Values('Trailblazers',30,49,33,'Yes');
Insert Into TeamRecord Values('Jazz',1,50,32,'Yes');
Insert Into TeamRecord Values('Celtics',17,49,33,'Yes');
Insert Into TeamRecord Values('76ers',22,54,28,'Yes');
Insert Into TeamRecord Values('Magic',13,39,43,'No');
Insert Into TeamRecord Values('Clippers',2,47,35,'Yes');
Insert Into TeamRecord Values('Hawks',3,27,55,'No');
Insert Into TeamRecord Values('Hornets',4,36,46,'No');
Insert Into TeamRecord Values('Bulls',6,24,58,'No');
Insert Into TeamRecord Values('Cavaliers',8,21,61,'No');
Insert Into TeamRecord Values('Mavericks',9,32,50,'No');
Insert Into TeamRecord Values('Nuggets',12,55,27,'Yes');
Insert Into TeamRecord Values('Pistons',14,42,40,'Yes');
Insert Into TeamRecord Values('Warriors',15,58,24,'Yes');
Insert Into TeamRecord Values('Pacers',16,48,34,'Yes');
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Insert Into TeamRecord Values('Heat',18,39,43,'Yes');
Insert Into TeamRecord Values('Bucks',19,61,21,'Yes');
Insert Into TeamRecord Values('Timberwolves',20,42,40,'No');
Insert Into TeamRecord Values('Pelicans',21,35,47,'No');
Insert Into TeamRecord Values('Knicks',23,16,66,'No');
Insert Into TeamRecord Values('Thunder',24,49,33,'Yes');
Insert Into TeamRecord Values('Suns',25,20,62,'No');
Insert Into TeamRecord Values('Kings',26,39,43,'No');
Insert Into TeamRecord Values('Spurs',27,47,35,'Yes');
Insert Into TeamRecord Values('Raptors',28,58,24,'Yes');
Insert Into TeamRecord Values('Wizards',29,34,48,'No');
Commit;
CREATE TABLE GeneralManager (
SSN varchar(9) NOT NULL PRIMARY KEY,
GMFirst varchar(20),
GMLast varchar(20),
Team varchar(15),
TeamNum int NOT NULL,
FOREIGN KEY (TeamNum) References Team(TeamID)
);
Insert Into GeneralManager Values('567890123','Connor','Dunning','Lakers',10);
Insert Into GeneralManager Values('901234567','Nathan','Chester','76ers',22);
Insert Into GeneralManager Values('111111111','James','McMillian','Trailblazers',30);
Insert Into GeneralManager Values('678901234','Isaiah','Downey','Rockets',11);
Insert Into GeneralManager Values('345678901','Stuart','Carter','Grizzlies',5);
Insert Into GeneralManager Values('467890123','Eric','Lentz','Nets',7);
Insert Into GeneralManager Values('123456789','Brandon','Abraham','Jazz',1);
```

```
Insert Into GeneralManager Values('890123456','Justin','Lewis','Celtics',17);
Insert Into GeneralManager Values('789012345','Grey','Peevy','Magic',13);
Insert Into GeneralManager Values('234567890','Steven','Genshaw','Clippers',2);
Insert Into GeneralManager Values('222222222','Peyton','Jones','Hawks',3);
Insert Into GeneralManager Values('333333333','Michael','Jordan','Hornets',4);
Insert Into GeneralManager Values('444444444','Jay','Foster','Bulls',6);
Insert Into GeneralManager Values('555555555','Bob','Saget','Cavaliers',8);
Insert Into GeneralManager Values('676767676','Mark','Cuban','Mavericks',9);
Insert Into GeneralManager Values('777777777','Bill','Howard','Nuggets',12);
Insert Into GeneralManager Values('888888888','Joe','Smith','Pistons',14);
Insert Into GeneralManager Values('999999999','Darth','Vader','Warriors',15);
Insert Into GeneralManager Values('121212121','Larry','Bird','Pacers',16);
Insert Into GeneralManager Values('123412340','Pat','Riley','Heat',18);
Insert Into GeneralManager Values('232323232','Joe','Bucks','Bucks',19);
Insert Into GeneralManager Values('343434343','Ron','Phillips','Timberwolves',20);
Insert Into GeneralManager Values('212121212','Jeffrey','Williamson','Pelicans',21);
Insert Into GeneralManager Values('989898989','James','Donlon','Knicks',23);
Insert Into GeneralManager Values('131313131','Sam','Presti','Thunder',24);
Insert Into GeneralManager Values('787878787','Sylvester','Young','Suns',25);
Insert Into GeneralManager Values('565656565','Vlade','Divac','Kings',26);
Insert Into GeneralManager Values('999992121','Sam','Elliot','Spurs',27);
Insert Into GeneralManager Values('920202014','Aubrey','Graham','Raptors',28);
Insert Into GeneralManager Values('292929292','Ernie','Grunfield','Wizards',29);

Commit;

CREATE TABLE Coach (
```

```
CSSN varchar(9) REFERENCES GeneralManager(SSN),
CoachName varchar(30),
TNumber int,
Experience int,
Salary decimal (7,0),
PRIMARY KEY(CSSN,CoachName),
FOREIGN KEY (TNumber) REFERENCES Team(TeamID)
);

Insert Into Coach Values('567890123','Luke Walton',10,2,5000000);
Insert Into Coach Values('901234567','Brett Brown',22,6,4500000);
Insert Into Coach Values('111111111','Terry Stotts',30,7,4000000);
Insert Into Coach Values('678901234','Mike DAntoni',11,13,7500000);
Insert Into Coach Values('345678901','JB Bickerstaff',5,2,2500000);
Insert Into Coach Values('467890123','Kenny Atkinson',7,2,3000000);
Insert Into Coach Values('123456789','Quin Snyder',1,4,3000000);
Insert Into Coach Values('890123456','Brad Stevens',17,5,6000000);
Insert Into Coach Values('789012345','Steve Clifford',13,7,4500000);
Insert Into Coach Values('234567890','Doc Rivers',2,15,7500000);
Insert Into Coach Values('222222222','Lloyd Pierce',3,1,3000000);
Insert Into Coach Values('333333333','James Borrego',4,1,3000000);
Insert Into Coach Values('444444444','Jim Boylan',6,1,3000000);
Insert Into Coach Values('555555555','Larry Drew',8,1,1500000);
Insert Into Coach Values('676767676','Rick Carlisle',9,17,5500000);
Insert Into Coach Values('777777777','Mike Malone',12,5,4500000);
Insert Into Coach Values('888888888','Dwane Casey',14,10,4500000);
Insert Into Coach Values('999999999','Steve Kerr',15,5,5000000);
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```
Insert Into Coach Values('121212121','Nate McMillan',16,15,3500000);
Insert Into Coach Values('123412340','Erik Spoelstra',18,11,6000000);
Insert Into Coach Values('232323232','Mike Budenholzer',19,6,5000000);
Insert Into Coach Values('343434343','Ryan Saunders',20,1,1500000);
Insert Into Coach Values('212121212','Alvin Gentry',21,16,4500000);
Insert Into Coach Values('989898989','David Fizdale',23,3,5000000);
Insert Into Coach Values('131313131','Billy Donovan',24,4,4500000);
Insert Into Coach Values('787878787','Igor Kokosov',25,1,3000000);
Insert Into Coach Values('565656565','Dave Joerger',26,6,4000000);
Insert Into Coach Values('999992121','Gregg Popovich',27,23,7500000);
Insert Into Coach Values('920202014','Nick Nurse',28,1,5500000);
Insert Into Coach Values('292929292','Scott Brooks',29,10,4000000);

Commit;
CREATE TABLE Rookies (
PlayerID int NOT NULL PRIMARY KEY,
RookName varchar(30),
TeamID int,
Country varchar(15),
Position int,
Height int,
JerseyNum int NOT NULL,
DraftNum int,
FOREIGN KEY (TeamID) References Team(TeamID)
);
Insert Into Rookies Values(100,'Jaren Jackson',5,'USA',4,82,13,4);
Insert Into Rookies Values(300,'Luka Doncic',9,'Slovenia',3,79,77,3);
```

```
Insert Into Rookies Values(600,'Collin Sexton',8,'USA',1,74,2,8);
Insert Into Rookies Values(700,'Trae Young',3,'USA',1,73,11,5);
Insert Into Rookies Values(800,'Jalen Brunson',9,'USA',1,75,13,33);
Insert Into Rookies Values(900,'Kevin Huerter',3,'USA',2,76,3,19);
Insert Into Rookies Values(950,'Donte DiVincenzo',19,'USA',2,76,17,17);
Insert Into Rookies Values(850,'Robert Williams',17,'USA',5,82,44,27);
Insert Into Rookies Values(443,'Landry Shamet',2,'USA',2,76,24,26);
Insert Into Rookies Values(542,'Mo Bamba',13,'USA',5,83,5,6);
Insert Into Rookies Values(134,'Mikal Bridges',25,'USA',3,79,25,10);
Insert Into Rookies Values(263,'Miles Bridges',4,'USA',3,79,0,12);
Insert Into Rookies Values(521,'Kevin Knox',23,'USA',3,81,20,9);
Insert Into Rookies Values(235,'Deandre Ayton',25,'Bahamas',5,84,20,1);
Insert Into Rookies Values(400,'Wendell Carter',6,'USA',5,82,34,7);
Insert Into Rookies Values(500,'Marvin Bagley',26,'USA',4,82,35,2);
Insert Into Rookies Values(200,'Grayson Allen',1,'USA',2,77,24,21);
Commit;

CREATE TABLE RookieStats (
RookID int NOT NULL PRIMARY KEY,
RName varchar(30),
PPG decimal(4,1),
RPG decimal(4,1),
APG decimal(4,1),
THREEPT decimal(4,1),
FG_PERC decimal(4,1),
Age int
);
```

```
Insert Into RookieStats Values(100,'Jaren Jackson',13.8,4.7,1.1,35.9,50.6,19);
Insert Into RookieStats Values(200,'Grayson Allen',3.9,0.3,0.6,29.7,32.5,23);
Insert Into RookieStats Values(300,'Luka Doncic',21.0,7.6,5.8,33.3,42.6,20);
Insert Into RookieStats Values(400,'Wendell Carter',10.3,7.0,1.8,18.8,48.5,20);
Insert Into RookieStats Values(500,'Marvin Bagley',14.5,7.3,1.0,29.3,51.9,19);
Insert Into RookieStats Values(600,'Collin Sexton',16.2,3.0,2.9,41.9,42.6,20);
Insert Into RookieStats Values(700,'Trae Young',18.7,3.6,7.9,33.6,41.7,20);
Insert Into RookieStats Values(800,'Jalen Brunson',8.9,2.3,2.9,35.1,46.8,22);
Insert Into RookieStats Values(900,'Kevin Huerter',9.5,3.3,2.8,38.1,41.7,20);
Insert Into RookieStats Values(950,'Donte DiVincenzo',4.9,2.4,1.1,26.5,40.3,22);
Insert Into RookieStats Values(850,'Robert Williams',2.6,2.2,0.2,0.0,74.4,21);
Insert Into RookieStats Values(443,'Landry Shamet',9.1,1.6,1.3,41.9,43.6,22);
Insert Into RookieStats Values(542,'Mo Bamba',6.2,5.0,0.8,30.0,48.1,20);
Insert Into RookieStats Values(134,'Mikal Bridges',8.2,3.2,2.1,33.8,43.6,22);
Insert Into RookieStats Values(235,'Deandre Ayton',16.5,10.3,1.8,0.0,58.6,20);
Insert Into RookieStats Values(263,'Miles Bridges',7.2,4.0,1.1,31.6,45.6,20);
Insert Into RookieStats Values(521,'Kevin Knox',12.6,4.4,1.0,34.7,36.9,19);
Commit;

CREATE TABLE NonRookieStarter (
PlayerID varchar(3),
GMSSN varchar(9),
PName varchar(30),
TeamNumber int NOT NULL,
JerseyNum int,
DraftPickNum int NULL,
Position int,
```

```
AllStar char(3),

Salary decimal(12,0),

Conference varchar(15),

Experience int,

Primary Key(PlayerID, PName),

FOREIGN KEY (TeamNumber) REFERENCES Team(TeamID),

FOREIGN KEY(GMSSN) REFERENCES GeneralManager(SSN)

);

Insert Into NonRookieStarter Values('100','123456789','Donovan
Mitchell',1,45,13,2,'No',3111480,'Western',2);

Insert Into NonRookieStarter Values('101','123456789','Rudy
Gobert',1,27,27,5,'No',23241573,'Western',6);

Insert Into NonRookieStarter Values('102','123456789','Ricky
Rubio',1,3,5,1,'No',14975000,'Western',8);

Insert Into NonRookieStarter Values('103','123456789','Joe
Ingles',1,2,NULL,3,'No',13045455,'Western',5);

Insert Into NonRookieStarter Values('104','123456789','Derrick
Favors',1,15,3,4,'No',16900000,'Western',9);

Insert Into NonRookieStarter Values('105','234567890','Tobias
Harris',2,34,19,3,'No',14800000,'Western',8);

Insert Into NonRookieStarter Values('106','234567890','Danilo
Gallinari',2,8,6,4,'No',21587579,'Western',10);

Insert Into NonRookieStarter Values('107','234567890','Montrezl
Harrell',2,5,32,5,'No',600000,'Western',4);

Insert Into NonRookieStarter Values('108','234567890','Avery
Bradley',2,0,19,2,'No',12000000,'Western',9);

Insert Into NonRookieStarter Values('109','234567890','Patrick
Beverley',2,21,42,1,'No',5027028,'Western',7);

Insert Into NonRookieStarter Values('110','345678901','Mike
Conley',5,11,4,1,'No',30521116,'Western',12);
```

```
Insert Into NonRookieStarter Values('111','345678901','Marc
Gasol',5,33,48,5,'Yes',24119025,'Western',11);

Insert Into NonRookieStarter Values('112','345678901','Kyle
Anderson',5,1,30,3,'No',8641000,'Western',5);

Insert Into NonRookieStarter Values('113','345678901','Dillon
Brooks',5,24,45,2,'No',1378242,'Western',2);

Insert Into NonRookieStarter Values('114','567890123','LeBron
James',10,23,1,3,'Yes',35654150,'Western',16);

Insert Into NonRookieStarter Values('115','567890123','Lonzo
Ball',10,2,2,1,'No',7461960,'Western',2);

Insert Into NonRookieStarter Values('116','567890123','Kyle
Kuzma',10,0,27,4,'No',1689840,'Western',2);

Insert Into NonRookieStarter Values('117','567890123','Brandon
Ingram',10,14,2,2,'No',5757120,'Western',3);

Insert Into NonRookieStarter Values('118','567890123','Javale
McGee',10,7,18,5,'No',2393887,'Western',11);

Insert Into NonRookieStarter Values('119','678901234','James
Harden',11,13,3,2,'Yes',30431854,'Western',10);

Insert Into NonRookieStarter Values('120','678901234','Chris
Paul',11,3,4,1,'Yes',35654150,'Western',14);

Insert Into NonRookieStarter Values('121','678901234','Clint
Capela',11,15,25,5,'No',15293104,'Western',5);

Insert Into NonRookieStarter Values('122','678901234','James
Ennis',11,8,NULL,3,'No',1621415,'Western',5);

Insert Into NonRookieStarter Values('123','678901234','PJ
Tucker',11,17,35,4,'No',7969537,'Western',8);

Insert Into NonRookieStarter Values('124','111111111','Damian
Lillard',30,0,6,1,'Yes',27977689,'Western',7);

Insert Into NonRookieStarter Values('125','111111111','CJ
McCollum',30,3,10,2,'No',25759766,'Western',6);

Insert Into NonRookieStarter Values('126','111111111','Jake
Layman',30,10,47,3,'No',1544951,'Western',3);
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Insert Into NonRookieStarter Values('127','111111111','Zach
Collins',30,33,10,4,'No',3628920,'Western',2);

Insert Into NonRookieStarter Values('128','111111111','Jusuf
Nurkic',30,27,16,5,'No',11111111,'Western',5);

Insert Into NonRookieStarter Values('129','901234567','Ben
Simmons',22,25,1,1,'No',6434520,'Eastern',2);

Insert Into NonRookieStarter Values('130','901234567','JJ
Redick',22,17,11,2,'No',12250000,'Eastern',13);

Insert Into NonRookieStarter Values('131','901234567','Joel
Embiid',22,21,3,5,'Yes',25467250,'Eastern',3);

Insert Into NonRookieStarter Values('132','901234567','Jimmy
Butler',22,23,30,3,'Yes',20445779,'Eastern',8);

Insert Into NonRookieStarter Values('133','901234567','Markelle
Fultz',22,20,1,1,'No',8339880,'Eastern',2);

Insert Into NonRookieStarter Values('134','467890123','DAngelo
Russell',7,1,38,1,'Yes',7019698,'Eastern',4);

Insert Into NonRookieStarter Values('135','467890123','Caris
LeVert',7,22,20,2,'No',1702800,'Eastern',3);

Insert Into NonRookieStarter Values('136','467890123','Jarrett
Allen',7,31,22,5,'No',2034120,'Eastern',2);

Insert Into NonRookieStarter Values('137','467890123','Joe
Harris',7,12,33,3,'No',8333333,'Eastern',5);

Insert Into NonRookieStarter Values('139','890123456','Kyrie
Irving',17,11,1,1,'Yes',20099189,'Eastern',8);

Insert Into NonRookieStarter Values('140','890123456','Al
Horford',17,42,3,5,'Yes',28928710,'Eastern',12);

Insert Into NonRookieStarter Values('141','890123456','Gordon
Hayward',17,20,9,3,'Yes',31214295,'Eastern',9);

Insert Into NonRookieStarter Values('142','890123456','Jayson
Tatum',17,0,3,4,'No',6700800,'Eastern',2);

Insert Into NonRookieStarter Values('143','890123456','Jaylen
Brown',17,7,3,2,'No',5169960,'Eastern',3);
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Insert Into NonRookieStarter Values('144','789012345','Aaron Gordon',13,0,4,4,'No',21590909,'Eastern',4);

Insert Into NonRookieStarter Values('145','789012345','Johnathan Isaac',13,1,6,3,'No',4969080,'Eastern',2);

Insert Into NonRookieStarter Values('146','789012345','DJ Augustin',13,14,9,1,'No',7250000,'Eastern',11);

Insert Into NonRookieStarter Values('147','789012345','Nikola Vucevic',13,9,16,5,'Yes',12750000,'Eastern',8);

Insert Into NonRookieStarter Values('148','789012345','Evan Fournier',13,10,20,2,'No',17000000,'Eastern',7);

Insert Into NonRookieStarter Values('149','222222222','John Collins',3,20,19,4,'No',2299080,'Eastern',2);

Insert Into NonRookieStarter Values('150','222222222','Dewayne Dedmon',3,14,NULL,5,'No',7488372,'Eastern',6);

Insert Into NonRookieStarter Values('151','222222222','Vince Carter',3,15,5,3,'Yes',2393887,'Eastern',21);

Insert Into NonRookieStarter Values('152','333333333','Kemba Walker',4,15,9,1,'Yes',12000000,'Eastern',8);

Insert Into NonRookieStarter Values('153','333333333','Jeremy Lamb',4,3,12,2,'No',7488372,'Eastern',7);

Insert Into NonRookieStarter Values('154','333333333','Nicolas Batum',4,5,25,3,'No',24000000,'Eastern',11);

Insert Into NonRookieStarter Values('155','333333333','Michael Kidd-Gilchrist',4,14,2,4,'No',13000000,'Eastern',7);

Insert Into NonRookieStarter Values('156','333333333','Cody Zeller',4,40,4,5,'No',13528090,'Eastern',6);

Insert Into NonRookieStarter Values('157','444444444','Lauri Markannen',6,24,7,4,'No',4536120,'Eastern',2);

Insert Into NonRookieStarter Values('158','444444444','Zach LaVine',6,8,14,2,'No',19500000,'Eastern',5);

Insert Into NonRookieStarter Values('159','444444444','Kris Dunn',6,32,5,1,'No',42210000,'Eastern',3);
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Insert Into NonRookieStarter Values('160','444444444','Otto
Porter',6,22,3,3,'No',26011913,'Eastern',6);

Insert Into NonRookieStarter Values('161','555555555','Tristan
Thompson',8,13,4,5,'No',17469565,'Eastern',8);

Insert Into NonRookieStarter Values('162','555555555','Cedi
Osman',8,16,31,3,'No',2775000,'Eastern',2);

Insert Into NonRookieStarter Values('163','555555555','Kevin
Love',8,0,5,4,'Yes',24119025,'Eastern',11);

Insert Into NonRookieStarter Values('164','555555555','Jordan
Clarkson',8,8,46,2,'No',12500000,'Eastern',5);

Insert Into NonRookieStarter Values('165','676767676','Dirk
Nowitzki',9,41,9,4,'Yes',5000000,'Western',21);

Insert Into NonRookieStarter Values('166','676767676','Kristaps Porzingis',9,6,4,5,'No',5697054,
'Western',4);

Insert Into NonRookieStarter Values('167','676767676','Tim Hardaway
Jr.',9,11,24,2,'No',17250000, 'Western',6);

Insert Into NonRookieStarter Values('168','777777777','Nikola Jokic',12,15,41,5,'Yes',24605181,
'Western',4);

Insert Into NonRookieStarter Values('169','777777777','Jamal Murray',12,27,7,1,'No',3499800,
'Western',3);

Insert Into NonRookieStarter Values('170','777777777','Paul
Millsap',12,4,47,4,'Yes',29730769,'Western',13);

Insert Into NonRookieStarter Values('171','777777777','Gary Harris',12,14,19,2,'No',16517857,
'Western',5);

Insert Into NonRookieStarter Values('172','777777777','Will Barton',12,5,40,3,'No',11830356,
'Western',7);

Insert Into NonRookieStarter Values('173','888888888','Blake Griffin',14,23,1,4,'Yes',32088932,
'Eastern',9);

Insert Into NonRookieStarter Values('174','888888888','Luke Kennard',14,5,12,2,'No',3275280,
'Eastern',2);

Insert Into NonRookieStarter Values('175','888888888','Andre
Drummond',14,0,9,5,'Yes',25434263, 'Eastern',7);
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Insert Into NonRookieStarter Values('176','888888888','Reggie
Jackson',14,1,24,1,'No',17043478, 'Eastern',8);

Insert Into NonRookieStarter Values('177','888888888','Wayne
Ellington',14,20,28,3,'No',2383076, 'Eastern',10);

Insert Into NonRookieStarter Values('178','999999999','Stephen
Curry',15,30,7,1,'Yes',37457154, 'Western',10);

Insert Into NonRookieStarter Values('179','999999999','Klay Thompson',15,11,11,2,
'Yes',18988725, 'Western',8);

Insert Into NonRookieStarter Values('180','999999999','Kevin
Durant',15,35,2,3,'Yes',30000000,'Western',12);

Insert Into NonRookieStarter Values('181','999999999','Draymond Green',15,23,35,4,
'Yes',1749565, 'Western',7);

Insert Into NonRookieStarter Values('182','999999999','DeMarcus Cousins',15,0,5,5,
'Yes',5337000, 'Western',9);

Insert Into NonRookieStarter Values('183','121212121','Victor Oladipo',16,4,2,2,'Yes',21000000,
'Eastern',6);

Insert Into NonRookieStarter Values('184','121212121','Thad Young',16,21,12,4,'No',13764045,
'Eastern',12);

Insert Into NonRookieStarter Values('185','121212121','Myles Turner',16,33,11,5,'No',3410284,
'Eastern',4);

Insert Into NonRookieStarter Values('186','121212121','Darren
Collison',16,2,21,1,'No',10000000, 'Eastern',10);

Insert Into NonRookieStarter Values('187','121212121','Bojan
Bogdanovic',16,44,31,3,'No',105000000, 'Eastern',5);

Insert Into NonRookieStarter Values('188','123412340','Goran Dragic',18,2,45,1,'Yes',18109175,
'Eastern',11);

Insert Into NonRookieStarter Values('199','123412340','Josh
Richardson',18,0,40,3,'No',9367200, 'Eastern',4);

Insert Into NonRookieStarter Values('200','123412340','Justise
Winslow',18,20,10,4,'No',3449260, 'Eastern',4);

Insert Into NonRookieStarter Values('201','123412340','Dwyane Wade',18,3,5,2,'Yes',2393887,
'Eastern',16);
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Insert Into NonRookieStarter Values('202','123412340','Bam Adebayo',18,13,14,5,'No',2955840,
'Eastern',2);

Insert Into NonRookieStarter Values('203','232323232','Giannis
Antetokounmpo',19,34,15,4,'Yes',24157304, 'Eastern',6);

Insert Into NonRookieStarter Values('204','232323232','Khris
Middleton',19,22,39,3,'Yes',13000000, 'Eastern',7);

Insert Into NonRookieStarter Values('205','232323232','Malcolm
Brogdon',19,13,36,2,'No',1544951, 'Eastern',3);

Insert Into NonRookieStarter Values('206','232323232','Eric Bledsoe',19,6,18,1,'No',15000000,
'Eastern',9);

Insert Into NonRookieStarter Values('207','232323232','Brook Lopez',19,11,10,5,'Yes',3382000,
'Eastern',11);

Insert Into NonRookieStarter Values('208','343434343','Karl-Anthony
Towns',20,32,1,5,'Yes',7839435,'Western',4);

Insert Into NonRookieStarter Values('209','343434343','Andrew Wiggins',20,22,1,3,
'No',25467250, 'Western',5);

Insert Into NonRookieStarter Values('210','343434343','Taj
Gibson',20,67,26,4,'No',14000000,'Western',10);

Insert Into NonRookieStarter Values('211','343434343','Derrick Rose',20,25,1,1,'Yes',25976110,
'Western',10);

Insert Into NonRookieStarter Values('212','212121212','Jrue Holiday',21,11,17,1,'Yes',7839435,
'Western',10);

Insert Into NonRookieStarter Values('213','212121212','Julius Randle',21,30,7,4,'No',8641000,
'Western',5);

Insert Into NonRookieStarter Values('214','212121212','Anthony
Davis',21,23,1,5,'Yes',25434263,'Western',7);

Insert Into NonRookieStarter Values('215','212121212','Elfrid Payton',21,4,10,1,'No',2176260,
'Western',5);

Insert Into NonRookieStarter Values('216','212121212','Etwuan Moore',21,55,55,3,
'No',8808685, 'Western',8);

Insert Into NonRookieStarter Values('217','989898989','Dennis Smith Jr.',23,5,9,1,'No',3819960,
'Eastern',2);
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Insert Into NonRookieStarter Values('218','989898989','DeAndre
Jordan',23,6,35,5,'Yes',22900000, 'Eastern',11);

Insert Into NonRookieStarter Values('219','989898989','Mario Hezonja',23,8,5,4,'No',6500000,
'Eastern',4);

Insert Into NonRookieStarter Values('220','989898989','Emmanuel
Mudiay',23,1,7,1,'No',4294480, 'Eastern',4);

Insert Into NonRookieStarter Values('221','131313131','Russell
Westbrook',24,0,4,1,'Yes',35654150, 'Western',11);

Insert Into NonRookieStarter Values('222','131313131','Terrance
Ferguson',24,23,21,2,'No',2118840, 'Western',2);

Insert Into NonRookieStarter Values('223','131313131','Paul
George',24,13,10,3,'Yes',30560700,'Western',9);

Insert Into NonRookieStarter Values('224','131313131','Jerami Grant',24,9,39,4,'No',8653847,
'Western',5);

Insert Into NonRookieStarter Values('225','131313131','Steven
Adams',24,12,12,5,'No',24157304, 'Western',6);

Insert Into NonRookieStarter Values('226','787878787','Devin
Booker',25,1,13,1,'No',3314365,'Western',4);

Insert Into NonRookieStarter Values('227','787878787','Josh Jackson',25,20,4,3,'No',6041520,
'Western',2);

Insert Into NonRookieStarter Values('228','787878787','TJ Warren',25,12,14,4,'No',11750000,
'Western',5);

Insert Into NonRookieStarter Values('229','565656565','DeAaron Fox',26,5,5,1,'No',5470920,
'Western',2);

Insert Into NonRookieStarter Values('230','565656565','Buddy
Hield',26,24,6,2,'No',3833760,'Western',3);

Insert Into NonRookieStarter Values('231','565656565','Bogdan
Bogdanovic',26,8,27,3,'No',9000000, 'Western',2);

Insert Into NonRookieStarter Values('232','565656565','Harry Giles',26,20,20,5,'No',2207040,
'Western',2);

Insert Into NonRookieStarter Values('233','999992121','Derrick White',27,4,29,2,'No',1667160,
'Western',2);
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Insert Into NonRookieStarter Values('234','999992121','Dejounte
Murray',27,5,29,1,'No',1544951, 'Western',3);

Insert Into NonRookieStarter Values('235','999992121','DeMar
DeRozan',27,10,9,3,'Yes',27739975,'Western',10);

Insert Into NonRookieStarter Values('236','999992121','LaMarcus
Aldridge',27,12,4,4,'Yes',22347015, 'Western',13);

Insert Into NonRookieStarter Values('237','999992121','Jakob Poetl',27,25,9,5,'No',2947320,
'Western',3);

Insert Into NonRookieStarter Values('238','920202014','Kyle Lowry',28,7,19,1,'Yes',31200000,
'Eastern',13);

Insert Into NonRookieStarter Values('239','920202014','Danny
Green',28,14,46,2,'No',10000000, 'Eastern',10);

Insert Into NonRookieStarter Values('240','920202014','Kawhi
Leonard',28,2,15,3,'Yes',23114067, 'Eastern',8);

Insert Into NonRookieStarter Values('241','920202014','Pascal Siakam',28,43,27,4,'No',1544951,
'Eastern',3);

Insert Into NonRookieStarter Values('242','920202014','Serge Ibaka',28,9,24,5,'No',2947320,
'Eastern',10);

Insert Into NonRookieStarter Values('243','292929292','John Wall',29,2,1,1,'Yes',19169800,
'Eastern',9);

Insert Into NonRookieStarter Values('244','292929292','Bradley Beal',29,3,3,2,'Yes',25434263,
'Eastern',7);

Insert Into NonRookieStarter Values('245','292929292','Trevor Ariza',29,1,43,3,'No',15000000,
'Eastern',15);

Insert Into NonRookieStarter Values('246','292929292','Jabari Parker',29,12,2,4,'No',20000000,
'Eastern',5);

Insert Into NonRookieStarter Values('247','292929292','Bobby Portis',29,5,22,5,'No',2494346,
'Eastern',4);

Commit;


CREATE TABLE NonRookieStarterStats (

PlayID varchar(3),
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```
GMSSN varchar(9),

PName varchar(30),

PPG decimal(4,1),

RPG decimal(4,1),

APG decimal(4,1),

THREEPT decimal(4,1),

FG_PERC decimal(4,1),

Height int,

Age int,

Primary Key(PlayID, PName),

FOREIGN KEY (GMSSN) REFERENCES GeneralManager(SSN)

);

Insert Into NonRookieStarterStats Values('100','123456789','Donovan
Mitchell',23.8,4.0,4.1,34.8,43.0,75,22);

Insert Into NonRookieStarterStats Values('101','123456789','Rudy
Gobert',15.4,12.9,2.1,0.0,66.1,86,26);

Insert Into NonRookieStarterStats Values('102','123456789','Ricky
Rubio',12.6,3.7,6.2,32.0,39.8,75,28);

Insert Into NonRookieStarterStats Values('103','123456789','Joe
Ingles',11.8,5.4,1.3,37.8,44.1,80,31);

Insert Into NonRookieStarterStats Values('104','123456789','Derrick
Favors',11.6,7.5,1.2,22.1,57.9,82,27);

Insert Into NonRookieStarterStats Values('105','234567890','Tobias
Harris',20.9,7.9,2.7,43.4,49.6,81,26);

Insert Into NonRookieStarterStats Values('106','234567890','Danilo
Gallinari',19.6,5.9,2.5,43.6,46.6,82,30);

Insert Into NonRookieStarterStats Values('107','234567890','Montrezl
Harrell',16.5,6.7,1.8,14.3,61.3,80,25);

Insert Into NonRookieStarterStats Values('108','234567890','Avery
Bradley',8.2,2.7,2.0,33.7,38.3,74,28);
```

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Insert Into NonRookieStarterStats Values('109','234567890','Patrick
Beverley',7.6,5.1,3.8,38.8,40.5,73,30);

Insert Into NonRookieStarterStats Values('110','345678901','Mike
Conley',20.9,3.4,6.5,36.6,43.6,73,31);

Insert Into NonRookieStarterStats Values('111','345678901','Marc
Gasol',15.7,8.6,4.7,34.4,44.4,83,34);

Insert Into NonRookieStarterStats Values('112','345678901','Kyle
Anderson',8.0,5.8,3.0,26.5,54.3,82,25);

Insert Into NonRookieStarterStats Values('113','345678901','Dillon
Brooks',7.5,1.7,0.9,37.5,40.2,79,23);

Insert Into NonRookieStarterStats Values('114','567890123','LeBron
James',27.4,8.5,8.1,33.4,51.0,80,34);

Insert Into NonRookieStarterStats Values('115','567890123','Lonzo
Ball',9.9,5.3,5.4,40.6,32.9,78,21);

Insert Into NonRookieStarterStats Values('116','567890123','Kyle
Kuzma',18.5,5.6,2.7,30.3,45.7,81,23);

Insert Into NonRookieStarterStats Values('117','567890123','Brandon
Ingram',18.3,5.1,3.0,33.0,49.7,81,21);

Insert Into NonRookieStarterStats Values('118','567890123','Javale
McGee',11.4,7.0,0.6,12.5,61.8,84,31);

Insert Into NonRookieStarterStats Values('119','678901234','James
Harden',36.5,6.5,7.6,36.3,43.8,77,29);

Insert Into NonRookieStarterStats Values('120','678901234','Chris
Paul',15.7,4.6,8.1,41.9,35.2,73,33);

Insert Into NonRookieStarterStats Values('121','678901234','Clint
Capela',16.6,12.5,1.4,0.0,63.9,82,24);

Insert Into NonRookieStarterStats Values('122','678901234','James
Ennis',7.4,2.9,0.7,36.7,49.3,79,28);

Insert Into NonRookieStarterStats Values('123','678901234','PJ
Tucker',7.4,6.0,1.2,37.8,40.0,79,33);

Insert Into NonRookieStarterStats Values('124','111111111','Damian
Lillard',26.3,4.5,6.7,37.3,45.2,75,28);
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Insert Into NonRookieStarterStats Values('125','111111111','CJ
McCollum',21.3,4.0,2.9,38.0,46.3,75,27);

Insert Into NonRookieStarterStats Values('126','111111111','Jake
Layman',7.6,3.3,0.7,33.3,51.1,81,24);

Insert Into NonRookieStarterStats Values('127','111111111','Zach
Collins',6.3,4.2,0.9,30.0,45.5,84,21);

Insert Into NonRookieStarterStats Values('128','111111111','Jusuf
Nurkic',15.4,10.4,3.2,10.3,50.8,84,24);

Insert Into NonRookieStarterStats Values('129','901234567','Ben
Simmons',17.1,9.0,7.8,0.0,56.9,82,22);

Insert Into NonRookieStarterStats Values('130','901234567','JJ
Redick',17.8,2.4,2.8,39.4,43.4,76,34);

Insert Into NonRookieStarterStats Values('131','901234567','Joel
Embiid',27.5,13.5,3.5,29.0,48.1,86,24);

Insert Into NonRookieStarterStats Values('132','901234567','Jimmy
Butler',18.8,5.1,4.0,34.1,47.0,80,29);

Insert Into NonRookieStarterStats Values('133','901234567','Markelle
Fultz',8.2,3.7,3.1,28.6,41.9,77,20);

Insert Into NonRookieStarterStats Values('134','467890123','DAngelo
Russell',20.7,3.7,6.9,36.6,43.2,77,22);

Insert Into NonRookieStarterStats Values('135','467890123','Caris
LeVert',13.1,3.9,3.8,27.6,41.4,79,24);

Insert Into NonRookieStarterStats Values('136','467890123','Jarrett
Allen',11.2,8.4,1.4,14.0,58.9,84,20);

Insert Into NonRookieStarterStats Values('137','467890123','Joe
Harris',13.5,3.6,2.4,47.1,50.1,79,27);

Insert Into NonRookieStarterStats Values('139','890123456','Kyrie
Irving',23.9,5.1,7.0,40.2,49.2,75,26);

Insert Into NonRookieStarterStats Values('140','890123456','Al
Horford',13.2,6.7,4.1,35.8,52.9,82,32);

Insert Into NonRookieStarterStats Values('141','890123456','Gordon
Hayward',10.8,4.3,3.4,33.5,44.8,80,28);
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Insert Into NonRookieStarterStats Values('142','890123456','Jayson
Tatum',16.0,6.2,2.0,36.1,45.3,80,20);

Insert Into NonRookieStarterStats Values('143','890123456','Jaylen
Brown',12.9,4.3,1.3,33.1,46.1,79,22);

Insert Into NonRookieStarterStats Values('144','789012345','Aaron
Gordon',16.0,7.3,3.7,34.2,44.2,81,23);

Insert Into NonRookieStarterStats Values('145','789012345','Johnathan
Isaac',9.4,5.4,1.1,31.4,42.7,83,21);

Insert Into NonRookieStarterStats Values('146','789012345','DJ
Augustin',11.7,2.3,5.1,42.6,47.3,73,31);

Insert Into NonRookieStarterStats Values('147','789012345','Nikola
Vucevic',20.7,12.1,3.9,36.6,52.0,82,28);

Insert Into NonRookieStarterStats Values('148','789012345','Evan
Fournier',14.8,3.2,3.7,34.3,42.7,79,26);

Insert Into NonRookieStarterStats Values('149','222222222','John
Collins',19.5,9.7,1.9,35.8,56.7,82,21);

Insert Into NonRookieStarterStats Values('150','222222222','Dewayne
Dedmon',10.7,7.5,1.4,37.9,48.3,84,29);

Insert Into NonRookieStarterStats Values('151','222222222','Vince
Carter',7.4,2.5,1.1,41.1,43.8,78,42);

Insert Into NonRookieStarterStats Values('152','333333333','Kemba
Walker',25.0,4.3,5.7,42.9,35.4,73,28);

Insert Into NonRookieStarterStats Values('153','333333333','Jeremy
Lamb',15.4,5.7,2.2,34.0,43.9,77,26);

Insert Into NonRookieStarterStats Values('154','333333333','Nicolas
Batum',9.9,5.3,3.4,39.2,45.2,80,30);

Insert Into NonRookieStarterStats Values('155','333333333','Michael Kidd-
Gilchrist',7.0,4.0,0.9,29.3,48.2,79,25);

Insert Into NonRookieStarterStats Values('156','333333333','Cody
Zeller',10.1,6.8,2.1,27.3,55.1,84,26);

Insert Into NonRookieStarterStats Values('157','444444444','Lauri
Markannen',18.9,9.0,1.5,36.5,43.7,84,21);
```

```
Insert Into NonRookieStarterStats Values('158','444444444','Zach
LaVine',23.7,4.7,4.5,37.4,46.7,77,23);

Insert Into NonRookieStarterStats Values('159','444444444','Kris
Dunn',11.4,4.1,6.0,35.4,43.0,76,24);

Insert Into NonRookieStarterStats Values('160','444444444','Otto
Porter',17.5,5.5,2.7,48.3,48.8,80,25);

Insert Into NonRookieStarterStats Values('161','555555555','Tristan
Thompson',11.1,10.8,2.1,0.0,52.4,82,27);

Insert Into NonRookieStarterStats Values('162','555555555','Cedi
Osman',13.1,4.8,2.6,35.9,42.7,80,23);

Insert Into NonRookieStarterStats Values('163','555555555','Kevin
Love',17.8,10.9,2.1,37.1,38.4,82,30);

Insert Into NonRookieStarterStats Values('164','555555555','Jordan
Clarkson',17.0,3.4,2.3,32.8,44.6,77,26);

Insert Into NonRookieStarterStats Values('165','676767676','Dirk
Nowitzki',5.9,2.3,0.6,30.3,35.1,84,40);

Insert Into NonRookieStarterStats Values('166','676767676','Kristaps
Porzingis',22.7,6.6,1.2,39.5,43.9,87,23);

Insert Into NonRookieStarterStats Values('167','676767676','Tim Hardaway
Jr.',15.5,3.2,1.9,32.1,40.4,78,26);

Insert Into NonRookieStarterStats Values('168','777777777','Nikola
Jokic',23.1,12.3,8.6,32.7,50.7,84,23);

Insert Into NonRookieStarterStats Values('169','777777777','Jamal
Murray',18.1,4.2,4.8,37.0,43.3,76,21);

Insert Into NonRookieStarterStats Values('170','777777777','Paul
Millsap',13.0,7.2,2.0,36.0,49.7,80,33);

Insert Into NonRookieStarterStats Values('171','777777777','Gary
Harris',13.6,3.0,2.4,34.6,42.7,76,24);

Insert Into NonRookieStarterStats Values('172','777777777','Will
Barton',12.5,5.0,3.2,35.3,41.4,78,28);

Insert Into NonRookieStarterStats Values('173','888888888','Blake
Griffin',24.6,7.6,5.4,35.9,46.5,82,29);
```

```
Insert Into NonRookieStarterStats Values('174','888888888','Luke
Kennard',9.5,2.8,1.8,38.2,43.4,77,22);

Insert Into NonRookieStarterStats Values('175','888888888','Andre
Drummond',17.4,15.5,1.3,13.5,52.8,83,25);

Insert Into NonRookieStarterStats Values('176','888888888','Reggie
Jackson',15.3,2.6,4.2,37.3,42.5,75,28);

Insert Into NonRookieStarterStats Values('177','888888888','Wayne
Ellington',11.4,1.8,1.9,41.1,43.3,77,31);

Insert Into NonRookieStarterStats Values('178','999999999','Stephen
Curry',27.8,5.3,5.3,42.9,47.1,75,30);

Insert Into NonRookieStarterStats Values('179','999999999','Klay
Thompson',22.4,4.1,2.5,40.1,46.9,79,28);

Insert Into NonRookieStarterStats Values('180','999999999','Kevin
Durant',27.0,6.6,5.7,35.6,51.4,84,30);

Insert Into NonRookieStarterStats Values('181','999999999','Draymond
Green',7.0,7.4,7.0,27.0,43.7,79,28);

Insert Into NonRookieStarterStats Values('182','999999999','DeMarcus
Cousins',15.8,8.0,3.6,24.2,47.5,83,28);

Insert Into NonRookieStarterStats Values('183','121212121','Victor
Oladipo',18.9,5.6,5.2,34.3,42.3,76,26);

Insert Into NonRookieStarterStats Values('184','121212121','Thad
Young',12.5,6.5,2.4,35.9,52,80,30);

Insert Into NonRookieStarterStats Values('185','121212121','Myles
Turner',13.2,7.0,1.6,37.6,48.3,83,22);

Insert Into NonRookieStarterStats Values('186','121212121','Darren
Collison',11.3,3.1,6.0,41.6,47.2,72,31);

Insert Into NonRookieStarterStats Values('187','121212121','Bojan
Bogdanovic',17.7,4.1,1.9,41.6,49.3,80,29);

Insert Into NonRookieStarterStats Values('188','123412340','Goran
Dragic',14.6,2.9,4.2,38.9,43,75,32);

Insert Into NonRookieStarterStats Values('199','123412340','Josh
Richardson',16.7,3.7,4.1,35.9,41.2,78,25);
```

```
Insert Into NonRookieStarterStats Values('200','123412340','Justise
Winslow',12.7,5.4,4.3,38.0,43.6,79,22);

Insert Into NonRookieStarterStats Values('201','123412340','Dwyane
Wade',14.2,3.7,4.0,32.7,43.6,76,37);

Insert Into NonRookieStarterStats Values('202','123412340','Bam
Adebayo',8.5,6.9,2.2,10.0,57.6,82,21);

Insert Into NonRookieStarterStats Values('203','232323232','Giannis
Antetokounmpo',27.5,12.0,6.0,24.9,58.1,84,24);

Insert Into NonRookieStarterStats Values('204','232323232','Khris
Middleton',17.9,6.1,4.4,38.4,43.7,80,27);

Insert Into NonRookieStarterStats Values('205','232323232','Malcolm
Brogdon',15.6,4.7,3.2,42.6,50.5,77,26);

Insert Into NonRookieStarterStats Values('206','232323232','Eric
Bledsoe',15.8,4.7,5.4,31.5,48.1,73,29);

Insert Into NonRookieStarterStats Values('207','232323232','Brook
Lopez',12.5,4.7,1.2,36.8,45.4,84,30);

Insert Into NonRookieStarterStats Values('208','343434343','Karl-Anthony
Towns',24.6,12.4,3.3,41.1,52.2,84,23);

Insert Into NonRookieStarterStats Values('209','343434343','Andrew
Wiggins',17.6,4.8,2.4,32.9,40.0,80,23);

Insert Into NonRookieStarterStats Values('210','343434343','Taj
Gibson',10.8,6.5,1.2,32.4,56.6,81,33);

Insert Into NonRookieStarterStats Values('211','343434343','Derrick
Rose',18.0,2.7,4.3,37,48.2,75,30);

Insert Into NonRookieStarterStats Values('212','212121212','Jrue
Holiday',21.1,5,7.7,32.5,47.2,76,28);

Insert Into NonRookieStarterStats Values('213','212121212','Julius
Randle',21.0,8.7,3.1,33.3,52.3,81,24);

Insert Into NonRookieStarterStats Values('214','212121212','Anthony
Davis',26.2,12.0,3.9,33.3,51.8,82,25);

Insert Into NonRookieStarterStats Values('215','212121212','Elfrid
Payton',10.6,5.4,7.3,35.4,43.9,76,24);
```

```
Insert Into NonRookieStarterStats Values('216','212121212','Etwuan Moore',11.9,2.4,1.9,43.2,48.1,76,29);

Insert Into NonRookieStarterStats Values('217','989898989','Dennis Smith Jr.',14.6,2.7,6.0,29.0,41.6,75,21);

Insert Into NonRookieStarterStats Values('218','989898989','DeAndre Jordan',10.8,11.5,2.9,0.0,64.0,83,30);

Insert Into NonRookieStarterStats Values('219','989898989','Mario Hezonja',8.1,3.8,1.1,29.0,40.3,80,23);

Insert Into NonRookieStarterStats Values('220','989898989','Emmanuel Mudiay',14.5,3.1,3.7,33.7,45.2,77,22);

Insert Into NonRookieStarterStats Values('221','131313131','Russell Westbrook',23.1,11.1,10.4,28.7,42.7,75,30);

Insert Into NonRookieStarterStats Values('222','131313131','Terrance Ferguson',6.7,1.8,0.9,35.8,41.8,79,20);

Insert Into NonRookieStarterStats Values('223','131313131','Paul George',28.2,8.1,4.2,39.1,44.1,82,28);

Insert Into NonRookieStarterStats Values('224','131313131','Jerami Grant',13.3,5.3,1.0,38.3,50.2,81,24);

Insert Into NonRookieStarterStats Values('225','131313131','Steven Adams',14.1,9.5,1.6,0.0,59.9,84,25);

Insert Into NonRookieStarterStats Values('226','787878787','Devin Booker',25.6,4.2,6.8,32.0,45.4,78,22);

Insert Into NonRookieStarterStats Values('227','787878787','Josh Jackson',11.0,4.2,2.2,31.6,40.9,80,21);

Insert Into NonRookieStarterStats Values('228','787878787','TJ Warren',18.0,4.0,1.5,42.8,48.6,80,25);

Insert Into NonRookieStarterStats Values('229','565656565','DeAaron Fox',17.5,3.7,7.3,37.2,46.1,75,21);

Insert Into NonRookieStarterStats Values('230','565656565','Buddy Hield',20.9,5.2,2.5,43.2,46.1,76,26);

Insert Into NonRookieStarterStats Values('231','565656565','Bogdan Bogdanovic',14.0,3.5,3.8,33.9,41.0,78,26);
```

```
Insert Into NonRookieStarterStats Values('232','565656565','Harry
Giles',7.0,3.8,1.5,0.0,50.3,82,20);

Insert Into NonRookieStarterStats Values('233','999992121','Derrick
White',10.1,3.7,3.9,34.4,48.6,76,24);

Insert Into NonRookieStarterStats Values('234','999992121','Dejounte
Murray',8.1,5.7,2.9,26.5,44.3,77,22);

Insert Into NonRookieStarterStats Values('235','999992121','DeMar
DeRozan',21.5,6.3,6.1,16.3,47.4,79,29);

Insert Into NonRookieStarterStats Values('236','999992121','LaMarcus
Aldridge',21.0,8.9,2.4,26.5,51.5,82,33);

Insert Into NonRookieStarterStats Values('237','999992121','Jakob
Poetl',5.5,5.3,1.3,0.0,64.1,84,23);

Insert Into NonRookieStarterStats Values('238','920202014','Kyle
Lowry',14.8,4.8,9.0,35.3,41.7,73,32);

Insert Into NonRookieStarterStats Values('239','920202014','Danny
Green',10.2,4.1,1.5,44.6,45.6,78,31);

Insert Into NonRookieStarterStats Values('240','920202014','Kawhi
Leonard',27.2,7.4,3.3,37.8,49.7,79,37);

Insert Into NonRookieStarterStats Values('241','920202014','Pascal
Siakam',16.8,6.9,3.1,35.3,54.7,81,24);

Insert Into NonRookieStarterStats Values('242','920202014','Serge
Ibaka',14.9,8.1,1.4,26.3,52.2,82,29);

Insert Into NonRookieStarterStats Values('243','292929292','John
Wall',20.7,3.6,8.7,30.2,44.4,76,28);

Insert Into NonRookieStarterStats Values('244','292929292','Bradley
Beal',25.9,5.2,5.6,35.2,47.5,76,25);

Insert Into NonRookieStarterStats Values('245','292929292','Trevor
Ariza',14.3,5.4,3.9,32.2,40.8,81,33);

Insert Into NonRookieStarterStats Values('246','292929292','Jabari
Parker',14.6,7.3,3.0,30.8,53.4,81,23);

Insert Into NonRookieStarterStats Values('247','292929292','Bobby
Portis',14.8,8.4,1.3,43.9,45.9,82,23);
```

```
Commit;

CREATE TABLE College (
CollNo varchar(3) NULL PRIMARY KEY,
CollName varchar(30),
Mascot varchar(20),
City varchar(20),
StateNum int NOT NULL,
Conference varchar(10),
FOREIGN KEY (StateNum) REFERENCES State(StateID)
);

Insert Into College Values('10','North Carolina','Tar Heels','Chapel Hill',43,'ACC');
Insert Into College Values('20','Duke','Blue Devils','Durham',43,'ACC');
Insert Into College Values('30','Murray State','Racers','Murray',33,'OVC');
Insert Into College Values('40','Tennessee','Volunteers','Knoxville',5,'SEC');
Insert Into College Values('50','Kentucky','Wildcats','Lexington',33,'SEC');
Insert Into College Values('60','Oregon','Ducks','Eugene',49,'PAC 12');
Insert Into College Values('70','Gonzaga','Bulldogs','Sponoke',19,'WAC');
Insert Into College Values('80','Indiana','Wildcats','Bloomington',15,'Big 10');
Insert Into College Values('90','Texas Tech','Red Raiders','Lubbock',5,'Big 12');
Insert Into College Values('95','Vanderbilt','Commodores','Nashville',5,'SEC');
Insert Into College Values('99','Virginia','Cavaliers','Charlottesville',47,'ACC');
Insert Into College Values('66','South California','Trojans','Los Angeles',8,'PAC 12');
Insert Into College Values('67','Missouri','Tigers','Columbia',46,'SEC');
Commit;
CREATE TABLE Draftees (
```

```
PlayerID int NOT NULL PRIMARY KEY,
DrafteeName varchar(30),
CollegeID varchar(3),
Country varchar(15),
Position int,
Height int,
Exp_Draft_Range varchar(15),
FOREIGN KEY (CollegeID) References College(CollNo)
);
Insert Into Draftees Values(1,'Zion Williamson',20,'USA',4,79,'Top 5');
Insert Into Draftees Values(2,'RJ Barrett',20,'Canada',2,79,'Top 5');
Insert Into Draftees Values(3,'Jarrett Culver',90,'USA',3,80,'Lottery');
Insert Into Draftees Values(4,'Cam Reddish',20,'USA',3,80,'Lottery');
Insert Into Draftees Values(5,'Coby White',10,'USA',1,77,'Lottery');
Insert Into Draftees Values(6,'Darius Garland',95,'USA',1,74,'Lottery');
Insert Into Draftees Values(7,'Tyler Herro',50,'USA',2,77,'Mid-First');
Insert Into Draftees Values(8,'Grant Williams',40,'USA',4,79,'Mid-First');
Insert Into Draftees Values(9,'Brandon Clarke',70,'USA',4,80,'Lottery');
Insert Into Draftees Values(10,'PJ Washington',50,'USA',4,80,'Mid-First');
Insert Into Draftees Values(11,'Ja Morant',30,'USA',1,75,'Top 5');
Insert Into Draftees Values(12,'Kevin Porter Jr.',66,'USA',2,78,'Late-First');
Insert Into Draftees Values(13,'Romeo Langford',80,'USA',2,78,'Late-First');
Insert Into Draftees Values(14,'Jontay Porter',67,'USA',5,82,'Late-First');
Insert Into Draftees Values(15,'Bol Bol',60,'USA',5,86,'Mid-First');
Insert Into Draftees Values(16,'DeAndre Hunter',99,'USA',3,79,'Lottery');
Insert Into Draftees Values(17,'Nassir Little',10,'USA',3,78,'Mid-First');
Commit;
```

```
CREATE TABLE DrafteeStats (
DraftID int NOT NULL PRIMARY KEY,
DName varchar(30),
PPG decimal(4,1),
RPG decimal(4,1),
APG decimal(4,1),
THREEPT decimal(4,1),
FG_PERC decimal(4,1),
Classification varchar(30)
);

Insert Into DrafteeStats Values(1,'Zion Williamson',22.2,8.7,2.0,32.1,69.6,'Freshman');
Insert Into DrafteeStats Values(2,'RJ Barrett',23.0,7.7,4.1,30.8,45.8,'Freshman');
Insert Into DrafteeStats Values(3,'Jarrett Culver',18.8,6.4,3.7,33.3,49.0,'Sophomore');
Insert Into DrafteeStats Values(4,'Cam Reddish',13.6,3.7,2.0,32.7,35.3,'Freshman');
Insert Into DrafteeStats Values(5,'Coby White',16.1,3.5,4.2,35.6,42.6,'Freshman');
Insert Into DrafteeStats Values(6,'Darius Garland',16.2,3.8,2.6,47.8,53.7,'Freshman');
Insert Into DrafteeStats Values(7,'Tyler Herro',14.1,4.6,2.4,36.0,46.4,'Freshman');
Insert Into DrafteeStats Values(8,'Grant Williams',18.7,7.5,3.1,34.1,56.5,'Junior');
Insert Into DrafteeStats Values(9,'Brandon Clarke',17.0,8.4,1.8,28.6,69.9,'Junior');
Insert Into DrafteeStats Values(10,'PJ Washington',14.8,7.6,1.4,41.9,51.5,'Sophomore');
Insert Into DrafteeStats Values(11,'Ja Morant',24.5,5.7,10.0,36.3,49.9,'Sophomore');
Insert Into DrafteeStats Values(12,'Kevin Porter Jr.',9.5,4.0,1.4,41.2,47.1,'Freshman');
Insert Into DrafteeStats Values(13,'Romeo Langford',16.5,5.4,2.3,27.2,44.8,'Freshman');
Insert Into DrafteeStats Values(14,'Jontay Porter',9.9,6.8,2.2,36.4,43.7,'Sophomore');
Insert Into DrafteeStats Values(15,'Bol Bol',21.0,9.6,1.0,52.0,56.1,'Freshman');
```

```
Insert Into DrafteeStats Values(16,'DeAndre Hunter',15.4,5.1,2.1,44.8,53.1,'Sophomore');

Insert Into DrafteeStats Values(17,'Nassir Little',9.7,4.6,0.7,26.9,48.0,'Freshman');

Commit;
```

1) Use cursors to display the stats of all players within the ages 20-24, as well as the rookies. You should also group them by: “Rookies”, “Players within 20-21 Years Old”, “22-Year Old Players”, “23 Year Old Players,” and “24 Year Old Players.” In addition, show what the stats would look like if they increased by 30% (rookies), 25% (20-21 Y/O), 20% (22 Y/O), 15% (23 Y/O), and 10% (24 Y/O), 5% (25 Y/O), and what the shooting percentages would look like if they increased by 5% (rookies), 4% (20-21 Y/O), 3% (22 Y/O) and 2% (23 and 24 and 25 Y/O). Remove the additional columns immediately after. – 175 lines.

```
SET SERVEROUTPUT ON

-- alter the tables to show the statistical upgrade

ALTER TABLE NonRookieStarterStats ADD new_ppg DECIMAL(4,1);

ALTER TABLE NonRookieStarterStats ADD new_rpg DECIMAL(4,1);

ALTER TABLE NonRookieStarterStats ADD new_apg DECIMAL(4,1);

ALTER TABLE NonRookieStarterStats ADD new_3PTPerc DECIMAL(4,1);

ALTER TABLE NonRookieStarterStats ADD new_FGPerc DECIMAL(4,1);

ALTER TABLE RookieStats ADD new_ppg DECIMAL(4,1);

ALTER TABLE RookieStats ADD new_rpg DECIMAL(4,1);

ALTER TABLE RookieStats ADD new_apg DECIMAL(4,1);

ALTER TABLE RookieStats ADD new_3PTPerc DECIMAL(4,1);

ALTER TABLE RookieStats ADD new_FGPerc DECIMAL(4,1);

DECLARE

PlayID      nonrookiestarterstats.playid%type; -- player id

PName       nonrookiestarterstats.pname%type; -- player's name

-- have to set 2 different old stat and new stat variables because of the different tables (rookie and nonrookie)

PPG_1       nonrookiestarterstats.ppg%type;
```

```
New_High_PPG1      nonrookiestarterstats.new_ppg%type;
PPG_2        rookiestats.ppg%type;
New_PPG2      rookiestats.new_ppg%type;
RPG_1        nonrookiestarterstats.rpg%type;
New_RPG1      nonrookiestarterstats.new_rpg%type;
RPG_2        rookiestats.rpg%type;
New_RPG2      rookiestats.new_rpg%type;
APG_1        nonrookiestarterstats.apg%type;
New_APG1      nonrookiestarterstats.new_apg%type;
APG_2        rookiestats.apg%type;
New_APG2      rookiestats.new_apg%type;
THREEPT_1     nonrookiestarterstats.threept%type;
New_3PTPerc1      nonrookiestarterstats.new_3PTPerc%type;
THREEPT_2        rookiestats.threept%type;
New_3PTPerc2      rookiestats.new_3ptPerc%type;
FGPerc_1        nonrookiestarterstats.fg_perc%type;
New_PPG1      nonrookiestarterstats.new_fgperc%type;
FG_Perc2        rookiestats.fg_perc%type;
New_FGPerc2      rookiestats.new_fgperc%type;
-- cursors to select all the information from the tables
CURSOR cur_rook IS
   SELECT rname, ppg, new_ppg, rpg, new_rpg, apg, new_apg, threept, new_3ptperc, fg_perc,
new_fgperc
    FROM RookieStats
    order by PPG DESC;
CURSOR cur_player1 IS
   SELECT pname, ppg, new_ppg, rpg, new_rpg, apg, new_apg, threept, new_3ptperc, fg_perc,
new_fgperc
```

```
    FROM NonRookieStarterStats
    Where Age = 20
    Order by PPG DESC;
CURSOR cur_player2 IS
   SELECT pname, ppg, new_ppg, rpg, new_rpg, apg, new_apg, threept, new_3ptperc, fg_perc,
new_fgperc
    FROM NonRookieStarterStats
    Where Age = 21
    Order by PPG DESC;
CURSOR cur_player3 IS
   SELECT pname, ppg, new_ppg, rpg, new_rpg, apg, new_apg, threept, new_3ptperc, fg_perc,
new_fgperc
    FROM NonRookieStarterStats
    Where Age = 22
    Order by PPG DESC;
CURSOR cur_player4 IS
   SELECT pname, ppg, new_ppg, rpg, new_rpg, apg, new_apg, threept, new_3ptperc, fg_perc,
new_fgperc
    FROM NonRookieStarterStats
    Where Age = 23
    Order by PPG DESC;
CURSOR cur_player5 IS
   SELECT pname, ppg, new_ppg, rpg, new_rpg, apg, new_apg, threept, new_3ptperc, fg_perc,
new_fgperc
    FROM NonRookieStarterStats
    Where Age = 24
    Order by PPG DESC;
CURSOR cur_player6 IS
```

```
   SELECT pname, ppg, new_ppg, rpg, new_rpg, apg, new_apg, threept, new_3ptperc, fg_perc,
new_fgperc

    FROM NonRookieStarterStats

    Where Age = 25

    Order by PPG DESC;

BEGIN

-- update statements to set the new stats to the stats with percentage increases

UPDATE RookieStats

SET New_PPG = PPG*1.30, New_RPG = RPG*1.30, New_APG = APG*1.30, New_3ptperc =
ThreePT * 1.05, New_FGPerc = FG_Perc * 1.05;

Update NonRookieStarterStats

SET New_PPG = PPG*1.27, New_RPG = RPG*1.27, New_APG = APG*1.27, New_3ptperc =
ThreePT * 1.04, New_FGPerc = FG_Perc * 1.04

Where Age = 20;

Update NonRookieStarterStats

SET New_PPG = PPG*1.25, New_RPG = RPG*1.25, New_APG = APG*1.25, New_3ptperc =
ThreePT * 1.04, New_FGPerc = FG_Perc * 1.04

Where Age = 21;

Update NonRookieStarterStats

SET New_PPG = PPG*1.2, New_RPG = RPG*1.2, New_APG = APG*1.2, New_3ptperc = ThreePT
* 1.03, New_FGPerc = FG_Perc * 1.03

Where Age = 22;

Update NonRookieStarterStats

SET New_PPG = PPG*1.15, New_RPG = RPG*1.15, New_APG = APG*1.15, New_3ptperc =
ThreePT * 1.02, New_FGPerc = FG_Perc * 1.02

Where Age = 23;

Update NonRookieStarterStats

SET New_PPG = PPG*1.1, New_RPG = RPG*1.1, New_APG = APG*1.1, New_3ptperc = ThreePT
* 1.02, New_FGPerc = FG_Perc * 1.02
```

```
Where Age = 24;

Update NonRookieStarterStats

SET New_PPG = PPG*1.05, New_RPG = RPG*1.05, New_APG = APG*1.05, New_3ptperc =
ThreePT * 1.02, New_FGPerc = FG_Perc * 1.02

Where Age = 25;

-- group all the stats and ages together with cursors

DBMS_OUTPUT.PUT_LINE('Rookies  *** Stats increased by 30% and Shooting Percentages by
5% ****');

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('                    ' || 'Original PPG' || '  New PPG  ' || 'Original RPG' || '
New RPG    '|| 'Original APG' || '  New APG  ' || 'Original 3PT%' || '    New 3PT%    '|| 'Original
FG%' || '  New FG%  ');

BEGIN

For rec_rook IN cur_rook

LOOP

DBMS_OUTPUT.PUT_LINE(rpad(rec_rook.rname,20)||' '||to_char(rec_rook.ppg,'99.9')||'
'||to_char(rec_rook.new_ppg,'99.9')||'          '||to_char(rec_rook.rpg,'99.9')||'
'||to_char(rec_rook.new_rpg,'99.9')||'        '||to_char(rec_rook.apg,'99.9')||'
'||to_char(rec_rook.new_apg,'99.9')||'         '||to_char(rec_rook.threept,'99.9')||'
'||to_char(rec_rook.new_3ptperc,'99.9')||'       '||to_char(rec_rook.fg_perc,'99.9')||'
'||to_char(rec_rook.new_fgperc,'99.9'));

END LOOP;

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('==========================================================
==================');

End;

DBMS_OUTPUT.PUT_LINE('20 Year Old Players  *** Stats increased by 27% and Shooting
Percentages by 4% ****');

DBMS_OUTPUT.PUT_LINE('  ');
```

```
DBMS_OUTPUT.PUT_LINE('                    ' || 'Original PPG' || '  New PPG  ' || 'Original RPG' || '
New RPG    '|| 'Original APG' || '  New APG  ' || 'Original 3PT%' || '    New 3PT%    '|| 'Original
FG%' || '  New FG%  ');

BEGIN

For rec_player1 IN cur_player1

LOOP

DBMS_OUTPUT.PUT_LINE(rpad(rec_player1.pname,20)||' '||to_char(rec_player1.ppg,'99.9')||'
'||to_char(rec_player1.new_ppg,'99.9')||'          '||to_char(rec_player1.rpg,'99.9')||'
'||to_char(rec_player1.new_rpg,'99.9')||'        '||to_char(rec_player1.apg,'99.9')||'
'||to_char(rec_player1.new_apg,'99.9')||'         '||to_char(rec_player1.threept,'99.9')||'
'||to_char(rec_player1.new_3ptperc,'99.9')||'       '||to_char(rec_player1.fg_perc,'99.9')||'
'||to_char(rec_player1.new_fgperc,'99.9'));

END LOOP;

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('==========================================================
====================');

End;

DBMS_OUTPUT.PUT_LINE('21 Year Old Players  *** Stats increased by 27% and Shooting
Percentages by 4% ****');

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('                    ' || 'Original PPG' || '  New PPG  ' || 'Original RPG' || '
New RPG    '|| 'Original APG' || '  New APG  ' || 'Original 3PT%' || '    New 3PT%    '|| 'Original
FG%' || '  New FG%  ');

BEGIN

For rec_player2 IN cur_player2

LOOP

DBMS_OUTPUT.PUT_LINE(rpad(rec_player2.pname,20)||' '||to_char(rec_player2.ppg,'99.9')||'
'||to_char(rec_player2.new_ppg,'99.9')||'          '||to_char(rec_player2.rpg,'99.9')||'
'||to_char(rec_player2.new_rpg,'99.9')||'        '||to_char(rec_player2.apg,'99.9')||'
'||to_char(rec_player2.new_apg,'99.9')||'         '||to_char(rec_player2.threept,'99.9')||'
'||to_char(rec_player2.new_3ptperc,'99.9')||'       '||to_char(rec_player2.fg_perc,'99.9')||'
'||to_char(rec_player2.new_fgperc,'99.9'));
```

```
END LOOP;

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('==========================================================
====================');

End;

DBMS_OUTPUT.PUT_LINE('22 Year Old Players  *** Stats increased by 20% and Shooting
Percentages by 3% ****');

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('                    ' || 'Original PPG' || '  New PPG  ' || 'Original RPG' || '
New RPG    '|| 'Original APG' || '  New APG  ' || 'Original 3PT%' || '    New 3PT%    '|| 'Original
FG%' || '  New FG%  ');

BEGIN

For rec_player3 IN cur_player3

LOOP

DBMS_OUTPUT.PUT_LINE(rpad(rec_player3.pname,20)||' '||to_char(rec_player3.ppg,'99.9')||'
'||to_char(rec_player3.new_ppg,'99.9')||'          '||to_char(rec_player3.rpg,'99.9')||'
'||to_char(rec_player3.new_rpg,'99.9')||'        '||to_char(rec_player3.apg,'99.9')||'
'||to_char(rec_player3.new_apg,'99.9')||'        '||to_char(rec_player3.threept,'99.9')||'
'||to_char(rec_player3.new_3ptperc,'99.9')||'       '||to_char(rec_player3.fg_perc,'99.9')||'
'||to_char(rec_player3.new_fgperc,'99.9'));

END LOOP;

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('==========================================================
====================');

End;

DBMS_OUTPUT.PUT_LINE('24 Year Old Players  *** Stats increased by 15% and Shooting
Percentages by 2% ****');

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('                    ' || 'Original PPG' || '  New PPG  ' || 'Original RPG' || '
New RPG    '|| 'Original APG' || '  New APG  ' || 'Original 3PT%' || '    New 3PT%    '|| 'Original
FG%' || '  New FG%  ');
```

```
BEGIN

For rec_player5 IN cur_player5

LOOP

DBMS_OUTPUT.PUT_LINE(rpad(rec_player5.pname,20)||' '||to_char(rec_player5.ppg,'99.9')||'
'||to_char(rec_player5.new_ppg,'99.9')||'          '||to_char(rec_player5.rpg,'99.9')||'
'||to_char(rec_player5.new_rpg,'99.9')||'        '||to_char(rec_player5.apg,'99.9')||'
'||to_char(rec_player5.new_apg,'99.9')||'         '||to_char(rec_player5.threept,'99.9')||'
'||to_char(rec_player5.new_3ptperc,'99.9')||'       '||to_char(rec_player5.fg_perc,'99.9')||'
'||to_char(rec_player5.new_fgperc,'99.9'));

END LOOP;

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('==========================================================
====================');

End;

DBMS_OUTPUT.PUT_LINE('23 Year Old Players  *** Stats increased by 10% and Shooting
Percentages by 2% ****');

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('                  ' || 'Original PPG' || '  New PPG  ' || 'Original RPG' || '
New RPG    '|| 'Original APG' || '  New APG  ' || 'Original 3PT%' || '    New 3PT%    '|| 'Original
FG%' || '  New FG%  ');

BEGIN

For rec_player4 IN cur_player4

LOOP

DBMS_OUTPUT.PUT_LINE(rpad(rec_player4.pname,22)||' '||to_char(rec_player4.ppg,'99.9')||'
'||to_char(rec_player4.new_ppg,'99.9')||'          '||to_char(rec_player4.rpg,'99.9')||'
'||to_char(rec_player4.new_rpg,'99.9')||'        '||to_char(rec_player4.apg,'99.9')||'
'||to_char(rec_player4.new_apg,'99.9')||'         '||to_char(rec_player4.threept,'99.9')||'
'||to_char(rec_player4.new_3ptperc,'99.9')||'       '||to_char(rec_player4.fg_perc,'99.9')||'
'||to_char(rec_player4.new_fgperc,'99.9'));

END LOOP;

DBMS_OUTPUT.PUT_LINE('  ');

End;
```

```
DBMS_OUTPUT.PUT_LINE('25 Year Old Players  *** Stats increased by 5% and Shooting
Percentages by 2% ****');

DBMS_OUTPUT.PUT_LINE('  ');

DBMS_OUTPUT.PUT_LINE('                    ' || 'Original PPG' || '  New PPG  ' || 'Original RPG' || '
New RPG    '|| 'Original APG' || '  New APG  ' || 'Original 3PT%' || '    New 3PT%    '|| 'Original
FG%' || '  New FG%  ');

BEGIN

For rec_player6 IN cur_player6

LOOP

DBMS_OUTPUT.PUT_LINE(rpad(rec_player6.pname,22)||' '||to_char(rec_player6.ppg,'99.9')||'
'||to_char(rec_player6.new_ppg,'99.9')||'          '||to_char(rec_player6.rpg,'99.9')||'
'||to_char(rec_player6.new_rpg,'99.9')||'        '||to_char(rec_player6.apg,'99.9')||'
'||to_char(rec_player6.new_apg,'99.9')||'         '||to_char(rec_player6.threept,'99.9')||'
'||to_char(rec_player6.new_3ptperc,'99.9')||'       '||to_char(rec_player6.fg_perc,'99.9')||'
'||to_char(rec_player6.new_fgperc,'99.9'));

END LOOP;

DBMS_OUTPUT.PUT_LINE('  ');

End;

-- drop the columns immediately after execution.

EXECUTE IMMEDIATE 'ALTER TABLE NonRookieStarterStats DROP COLUMN new_ppg';

EXECUTE IMMEDIATE 'ALTER TABLE NonRookieStarterStats DROP COLUMN new_rpg';

EXECUTE IMMEDIATE 'ALTER TABLE NonRookieStarterStats DROP COLUMN new_apg';

EXECUTE IMMEDIATE 'ALTER TABLE NonRookieStarterStats DROP COLUMN new_3ptperc';

EXECUTE IMMEDIATE 'ALTER TABLE NonRookieStarterStats DROP COLUMN new_fgperc';

EXECUTE IMMEDIATE 'ALTER TABLE RookieStats DROP COLUMN new_ppg';

EXECUTE IMMEDIATE 'ALTER TABLE RookieStats DROP COLUMN new_rpg';

EXECUTE IMMEDIATE 'ALTER TABLE RookieStats DROP COLUMN new_apg';

EXECUTE IMMEDIATE 'ALTER TABLE RookieStats DROP COLUMN new_3ptperc';

EXECUTE IMMEDIATE 'ALTER TABLE RookieStats DROP COLUMN new_fgperc';

End;
```

Output:

Rookies *** Stats increased by 30% and Shooting Percentages by 5% ****

	Original PPG	New PPG	Original RPG	New RPG	Original APG	New APG	Original 3PT%	New 3PT%	Original FG%	New FG%
Luka Doncic	21.0	27.3	7.6	9.9	5.8	7.5	33.3	35.0	42.6	44.7
Trae Young	18.7	24.3	3.6	4.7	7.9	10.3	33.6	35.3	41.7	43.8
Deandre Ayton	16.5	21.5	10.3	13.4	1.8	2.3	.0	.0	58.6	61.5
Collin Sexton	16.2	21.1	3.0	3.9	2.9	3.8	41.9	44.0	42.6	44.7
Marvin Bagley	14.5	18.9	7.3	9.5	1.0	1.3	29.3	30.8	51.9	54.5
Jaren Jackson	13.8	17.9	4.7	6.1	1.1	1.4	35.9	37.7	50.6	53.1
Kevin Knox	12.6	16.4	4.4	5.7	1.0	1.3	34.7	36.4	36.9	38.7
Wendell Carter	10.3	13.4	7.0	9.1	1.8	2.3	18.8	19.7	48.5	50.9
Kevin Huerter	9.5	12.4	3.3	4.3	2.8	3.6	38.1	40.0	41.7	43.8
Landry Shamet	9.1	11.8	1.6	2.1	1.3	1.7	41.9	44.0	43.6	45.8
Jalen Brunson	8.9	11.6	2.3	3.0	2.9	3.8	35.1	36.9	46.8	49.1
Mikal Bridges	8.2	10.7	3.2	4.2	2.1	2.7	33.8	35.5	43.6	45.8
Miles Bridges	6.7	8.7	3.9	5.1	.9	1.2	30.8	32.3	45.0	47.3

Mo Bamba 6.2 8.1 5.0 6.5 .8 1.0 30.0 31.5 48.1 50.5

Donte DiVincenzo 4.9 6.4 2.4 3.1 1.1 1.4 26.5 27.8 40.3 42.3

Grayson Allen 3.9 5.1 .3 .4 .6 .8 29.7 31.2 32.5 34.1

Robert Williams 2.6 3.4 2.2 2.9 .2 .3 .0 .0 74.4 78.1

==========

20 Year Old Players *** Stats increased by 27% and Shooting Percentages by 4% ****

Original PPG New PPG Original RPG New RPG Original APG New APG Original 3PT% New 3PT% Original FG% New FG%

Jayson Tatum 16.0 20.3 6.2 7.9 2.0 2.5 36.1 37.5 45.3 47.1

Jarrett Allen 11.2 14.2 8.4 10.7 1.4 1.8 14.0 14.6 58.9 61.3

Markelle Fultz 8.2 10.4 3.7 4.7 3.1 3.9 28.6 29.7 41.9 43.6

Harry Giles 7.0 8.9 3.8 4.8 1.5 1.9 .0 .0 50.3 52.3

Terrance Ferguson 6.7 8.5 1.8 2.3 .9 1.1 35.8 37.2 41.8 43.5

==========

21 Year Old Players *** Stats increased by 27% and Shooting Percentages by 4% ****

Original PPG New PPG Original RPG New RPG Original APG New APG Original 3PT% New 3PT% Original FG% New FG%

John Collins 19.5 24.4 9.7 12.1 1.9 2.4 35.8 37.2 56.7 59.0

Lauri Markannen 18.9 23.6 9.0 11.3 1.5 1.9 36.5 38.0 43.7 45.4

Brandon Ingram 18.3 22.9 5.1 6.4 3.0 3.8 33.0 34.3 49.7 51.7

Jamal Murray 18.1 22.6 4.2 5.3 4.8 6.0 37.0 38.5 43.3 45.0

DeAaron Fox 17.5 21.9 3.7 4.6 7.3 9.1 37.2 38.7 46.1 47.9

Dennis Smith Jr. 14.6 18.3 2.7 3.4 6.0 7.5 29.0 30.2 41.6 43.3

Josh Jackson 11.0 13.8 4.2 5.3 2.2 2.8 31.6 32.9 40.9 42.5

Lonzo Ball 9.9 12.4 5.3 6.6 5.4 6.8 40.6 42.2 32.9 34.2

Johnathan Isaac 9.4 11.8 5.4 6.8 1.1 1.4 31.4 32.7 42.7 44.4

Bam Adebayo 8.5 10.6 6.9 8.6 2.2 2.8 10.0 10.4 57.6 59.9

Zach Collins 6.3 7.9 4.2 5.3 .9 1.1 30.0 31.2 45.5 47.3

==========

22 Year Old Players *** Stats increased by 20% and Shooting Percentages by 3% ****

Original PPG New PPG Original RPG New RPG Original APG New APG Original 3PT% New 3PT% Original FG% New FG%

Devin Booker 25.6 30.7 4.2 5.0 6.8 8.2 32.0 33.0 45.4 46.8

Donovan Mitchell 23.8 28.6 4.0 4.8 4.1 4.9 34.8 35.8 43.0 44.3

DAngelo Russell 20.7 24.8 3.7 4.4 6.9 8.3 36.6 37.7 43.2 44.5

Ben Simmons 17.1 20.5 9.0 10.8 7.8 9.4 .0 .0 56.9 58.6

Emmanuel Mudiay 14.5 17.4 3.1 3.7 3.7 4.4 33.7 34.7 45.2 46.6

Myles Turner 13.2 15.8 7.0 8.4 1.6 1.9 37.6 38.7 48.3 49.7

Jaylen Brown 12.9 15.5 4.3 5.2 1.3 1.6 33.1 34.1 46.1 47.5

Justise Winslow 12.7 15.2 5.4 6.5 4.3 5.2 38.0 39.1 43.6 44.9

Luke Kennard 9.5 11.4 2.8 3.4 1.8 2.2 38.2 39.3 43.4 44.7

Dejounte Murray 8.1 9.7 5.7 6.8 2.9 3.5 26.5 27.3 44.3 45.6

==========

24 Year Old Players *** Stats increased by 15% and Shooting Percentages by 2% ****

	Original PPG	New PPG	Original RPG	New RPG	Original APG	New APG	Original 3PT%	New 3PT%	Original FG%	New FG%
Giannis Antetokounmp	27.5	30.3	12.0	13.2	6.0	6.6	24.9	25.4	58.1	59.3
Joel Embiid	27.5	30.3	13.5	14.9	3.5	3.9	29.0	29.6	48.1	49.1
Julius Randle	21.0	23.1	8.7	9.6	3.1	3.4	33.3	34.0	52.3	53.3
Pascal Siakam	16.8	18.5	6.9	7.6	3.1	3.4	35.3	36.0	54.7	55.8
Clint Capela	16.6	18.3	12.5	13.8	1.4	1.5	.0	.0	63.9	65.2
Jusuf Nurkic	15.4	16.9	10.4	11.4	3.2	3.5	10.3	10.5	50.8	51.8

Gary Harris	13.6	15.0	3.0	3.3	2.4	2.6	34.6	35.3	42.7	43.6
Jerami Grant	13.3	14.6	5.3	5.8	1.0	1.1	38.3	39.1	50.2	51.2
Caris LeVert	13.1	14.4	3.9	4.3	3.8	4.2	27.6	28.2	41.4	42.2
Kris Dunn	11.4	12.5	4.1	4.5	6.0	6.6	35.4	36.1	43.0	43.9
Elfrid Payton	10.6	11.7	5.4	5.9	7.3	8.0	35.4	36.1	43.9	44.8
Derrick White	10.1	11.1	3.7	4.1	3.9	4.3	34.4	35.1	48.6	49.6
Jake Layman	7.6	8.4	3.3	3.6	.7	.8	33.3	34.0	51.1	52.1

==========

23 Year Old Players *** Stats increased by 10% and Shooting Percentages by 2% ****

	Original PPG	New PPG	Original RPG	New RPG	Original APG	New APG	Original 3PT%	New 3PT%	Original FG%	New FG%
Karl-Anthony Towns	24.6	28.3	12.4	14.3	3.3	3.8	41.1	41.9	52.2	53.2
Zach LaVine	23.7	27.3	4.7	5.4	4.5	5.2	37.4	38.1	46.7	47.6
Nikola Jokic	23.1	26.6	12.3	14.1	8.6	9.9	32.7	33.4	50.7	51.7
Kristaps Porzingis	22.7	26.1	6.6	7.6	1.2	1.4	39.5	40.3	43.9	44.8
Kyle Kuzma	18.5	21.3	5.6	6.4	2.7	3.1	30.3	30.9	45.7	46.6
Andrew Wiggins	17.6	20.2	4.8	5.5	2.4	2.8	32.9	33.6	40.0	40.8

Aaron Gordon	16.0	18.4	7.3	8.4	3.7	4.3	34.2	34.9	44.2	45.1
Bobby Portis	14.8	17.0	8.4	9.7	1.3	1.5	43.9	44.8	45.9	46.8
Jabari Parker	14.6	16.8	7.3	8.4	3.0	3.5	30.8	31.4	53.4	54.5
Cedi Osman	13.1	15.1	4.8	5.5	2.6	3.0	35.9	36.6	42.7	43.6
Mario Hezonja	8.1	9.3	3.8	4.4	1.1	1.3	29.0	29.6	40.3	41.1
Dillon Brooks	7.5	8.6	1.7	2.0	.9	1.0	37.5	38.3	40.2	41.0
Jakob Poetl	5.5	6.3	5.3	6.1	1.3	1.5	.0	.0	64.1	65.4

PL/SQL procedure successfully completed.

2. Use functions to display a team's city and team name, the coach, the general manager, and the starting lineup – find positions 1-5 from either the NonRookieStarter or Rookie tables. – 223 Lines

```
Create or replace function find_team (t_number nonrookiestarter.teamnumber%type)
Return team.name%type
Is
        Ret_TeamName  team.name%type;
Begin
            if t_number = 5 then Ret_TeamName := 'Grizzlies';
elsif t_number = 7 then Ret_TeamName := 'Nets';
elsif t_number = 10 then Ret_TeamName := 'Lakers';
elsif t_number = 11 then Ret_TeamName := 'Rockets';
elsif t_number = 30 then Ret_TeamName := 'Trail Blazers';
elsif t_number = 1 then Ret_TeamName := 'Jazz';
elsif t_number = 17 then Ret_TeamName := 'Celtics';
```

```
elsif t_number = 22 then Ret_TeamName := '76ers';
elsif t_number = 2 then Ret_TeamName := 'Clippers';
elsif t_number = 13 then Ret_TeamName := 'Magic';
elsif t_number = 3 then Ret_TeamName := 'Hawks';
elsif t_number = 4 then Ret_TeamName := 'Hornets';
elsif t_number = 6 then Ret_TeamName := 'Bulls';
elsif t_number = 8 then Ret_TeamName := 'Cavaliers';
elsif t_number = 9 then Ret_TeamName := 'Mavericks';
elsif t_number = 12 then Ret_TeamName := 'Nuggets';
elsif t_number = 14 then Ret_TeamName := 'Pistons';
elsif t_number = 15 then Ret_TeamName := 'Warriors';
elsif t_number = 16 then Ret_TeamName := 'Pacers';
elsif t_number = 18 then Ret_TeamName := 'Heat';
elsif t_number = 19 then Ret_TeamName := 'Bucks';
elsif t_number = 20 then Ret_TeamName := 'Timberwolves';
elsif t_number = 21 then Ret_TeamName := 'Pelicans';
elsif t_number = 23 then Ret_TeamName := 'Knicks';
elsif t_number = 24 then Ret_TeamName := 'Thunder';
elsif t_number = 25 then Ret_TeamName := 'Suns';
elsif t_number = 26 then Ret_TeamName := 'Kings';
elsif t_number = 27 then Ret_TeamName := 'Spurs';
elsif t_number = 28 then Ret_TeamName := 'Raptors';
elsif t_number = 29 then Ret_TeamName := 'Wizards';
Else Ret_TeamName := 'Failed Entry';
End IF;
Return Ret_TeamName;
End;
```

```
/
Create or Replace Function find_city (t_number nonrookiestarter.teamnumber%type)
Return
Team.City%type
IS
City_Name team.city%type;
Begin
select City into City_Name
from Team
where TeamID = t_number;
Return City_Name;
End;
/
Create or Replace Function find_gm_firstname (t_number
nonrookiestarter.teamnumber%type)
Return
generalmanager.gmfirst%type
IS
gm_First generalmanager.gmfirst%type;
Begin
select GMFirst into gm_First
from GeneralManager
where TeamNum = t_number;
return gm_First;
end;
/
Create or Replace Function find_gm_lastname (t_number nonrookiestarter.teamnumber%type)
```

```
Return
generalmanager.gmlast%type
IS
GM_Last generalmanager.gmlast%type;
Begin
select GMLast into GM_Last
from GeneralManager
where TeamNum = t_number;
return GM_Last;
end;
/
Create or Replace Function find_coach (t_number nonrookiestarter.teamnumber%type)
Return
coach.coachname%type
IS
Coach_Name coach.coachname%type;
Begin
select CoachName into Coach_Name
from Coach
where TNumber = t_number;
return Coach_Name;
end;
/
Create or Replace Function find_pointguard (t_number nonrookiestarter.teamnumber%type)
Return
nonrookiestarter.pname%type
IS
```

```
Point_Guard nonrookiestarter.pname%type;
Begin
select PName into Point_Guard
from (
select pname
from NonRookieStarter
where TeamNumber = t_number
and position = 1
UNION
select rookname
from Rookies
where TeamID = t_number
and position = 1);
Return Point_Guard;
end;
/
Create or Replace Function find_shootingguard (t_number
nonrookiestarter.teamnumber%type)
Return
nonrookiestarter.pname%type
IS
Shooting_Guard nonrookiestarter.pname%type;
Begin
select PName into Shooting_Guard
from (
select pname
from NonRookieStarter
```

```
where TeamNumber = t_number
and position = 2
UNION
select rookname
from Rookies
where TeamID = t_number
and position = 2);
Return Shooting_Guard;
end;
/
Create or Replace Function find_smallforward (t_number nonrookiestarter.teamnumber%type)
Return
nonrookiestarter.pname%type
IS
Small_Forward nonrookiestarter.pname%type;
Begin
select PName into Small_Forward
from (
select pname
from NonRookieStarter
where TeamNumber = t_number
and position = 3
UNION
select rookname
from Rookies
where TeamID = t_number
and position = 3);
```

```
Return Small_Forward;
end;
/
Create or Replace Function find_powerforward (t_number
nonrookiestarter.teamnumber%type)
Return
nonrookiestarter.pname%type
IS
Power_Forward nonrookiestarter.pname%type;
Begin
select PName into Power_Forward
from (
select pname
from NonRookieStarter
where TeamNumber = t_number
and position = 4
UNION
select rookname
from Rookies
where TeamID = t_number
and position = 4);
Return Power_Forward;
end;
/
Create or Replace Function find_center (t_number nonrookiestarter.teamnumber%type)
Return
nonrookiestarter.pname%type
```

```
IS
Center_Start nonrookiestarter.pname%type;
Begin
select PName into Center_Start
from (
select pname
from NonRookieStarter
where TeamNumber = t_number
and position = 5
UNION
select rookname
from Rookies
where TeamID = t_number
and position = 5);
Return Center_Start;
end;
/
Set serveroutput on
Declare
   Team_Number  nonrookiestarter.teamnumber%type := '&Team_Number';
   Team_Name  team.name%type;
   City_Name team.city%type;
   GM_First generalmanager.gmfirst%type;
   GM_Last generalmanager.gmlast%type;
   Coach_Name coach.coachname%type;
   Point_Guard nonrookiestarter.pname%type;
   Shooting_Guard nonrookiestarter.pname%type;
```

```
    Small_Forward nonrookiestarter.pname%type;
    Power_Forward nonrookiestarter.pname%type;
    Center_Starter nonrookiestarter.pname%type;
begin
   Team_Name := find_team(Team_Number);
   City_Name := find_city(Team_Number);
   DBMS_OUTPUT.PUT_LINE('Team: '||City_Name || ' ' ||Team_Name);
   GM_First := find_gm_firstname(Team_Number);
    GM_Last := find_gm_lastname(Team_Number);
    DBMS_OUTPUT.PUT_LINE('General Manager: ' || trim(GM_First) || ' ' || trim(GM_Last));
    Coach_Name := find_coach(Team_Number);
    DBMS_OUTPUT.PUT_LINE('Coach: ' || Coach_Name);
    DBMS_OUTPUT.PUT_LINE('Starting Lineup');
    DBMS_OUTPUT.PUT_LINE('--------------------');
    Point_Guard := find_pointguard(Team_Number);
    DBMS_OUTPUT.PUT_LINE('Starting Point Guard: ' || trim(point_guard));
    Shooting_Guard := find_shootingguard(Team_Number);
    DBMS_OUTPUT.PUT_LINE('Starting Shooting Guard: ' || trim(shooting_guard));
    Small_Forward := find_smallforward(Team_Number);
    DBMS_OUTPUT.PUT_LINE('Starting Small Forward: ' || trim(small_forward));
    Power_Forward := find_powerforward(Team_Number);
    DBMS_OUTPUT.PUT_LINE('Starting Power Forward: ' || trim(power_forward));
    Center_Starter := find_center(Team_Number);
    DBMS_OUTPUT.PUT_LINE('Starting Center: ' || trim(center_starter));
   end;
```

Input: Use team number 9 (side-note: used 9 since the Mavericks have 2 rookie starters and 3 non-rookie ones. Utilizes the union function better).

Output:

Team: Dallas Mavericks

General Manager: Mark Cuban

Coach: Rick Carlisle

Starting Lineup

Starting Point Guard: Jalen Brunson

Starting Shooting Guard: Tim Hardaway Jr.

Starting Small Forward: Luka Doncic

Starting Power Forward: Dirk Nowitzki

Starting Center: Kristaps Porzingis

PL/SQL procedure successfully completed.

3. Use a package to retrieve a state name, a state's region, the number of NBA teams, the number of NBA playoff teams, and the number of college teams in the database. Have the user input the number. Drop the package right after – 71 lines.

```
CREATE OR REPLACE PACKAGE pg_State_Info IS  -- Create a package
  FUNCTION Find_State (s_num state.stateid%type) return state.statename%type;
  Function Find_Region (s_num state.stateid%type) return state.region%type;
   PROCEDURE Count_NBATeam (s_num IN state.stateid%type, s_nba OUT number);
   PROCEDURE Count_PlayoffTeam (s_num IN state.stateid%type, s_playoff OUT number);
   PROCEDURE Count_CollegeTeam (s_num IN state.stateid%type, s_college OUT number);
End pg_State_Info;
/
CREATE OR REPLACE PACKAGE body pg_State_Info AS  --- CREATING THE PACKAGE BODY:
  FUNCTION Find_State (s_num state.stateid%type) return state.statename%type
```

```
IS
        state_name state.statename%type;
Begin
      select statename into state_name from state where stateid = s_num;
        Return State_Name;
End Find_State;
  Function Find_Region (s_num state.stateid%type) return state.region%type
  IS
      region_name state.region%type;
Begin
  Select Region  into region_name
From state
  where stateid = s_num;
Return region_name;
End Find_Region;
   PROCEDURE Count_NBATeam (s_num IN state.stateid%type, s_nba OUT number)
IS
Begin
Select count(*) into s_nba
from Team where S_Num = statenum;
End Count_NBATeam;
PROCEDURE Count_PlayoffTeam (s_num IN state.stateid%type, s_playoff OUT number)
IS
Begin
Select count(*) into s_playoff
from TeamRecord, Team
where S_Num = statenum
```

```
and tNum = teamid
and playoffs = 'Yes';
End Count_PlayoffTeam;
   PROCEDURE Count_CollegeTeam (s_num IN state.stateid%type, s_college OUT number)
Is
Begin
Select count(*) into s_college from College where s_num = statenum;
End Count_CollegeTeam;
End;
/
--- Using package
set serveroutput on
declare
state_number state.stateid%type;
state_name state.statename%type;
state_region state.region%type;
nba_teams Number;
playoff_teams Number;
college_teams number;
Begin
state_number := '&StateNum';
 state_name := pg_State_Info.Find_State(state_number);
 DBMS_OUTPUT.PUT_LINE('State: ' || state_name);
state_region := pg_state_info.Find_Region(state_number);
DBMS_OUTPUT.PUT_LINE('Region: ' || state_region);
pg_state_info.Count_NBATeam(state_number, nba_teams);
 DBMS_OUTPUT.PUT_LINE('Number of NBA Teams: ' || nba_teams);
```

```
pg_state_info.Count_PlayoffTeam(state_number, playoff_teams);
DBMS_OUTPUT.PUT_LINE('Number of NBA Playoff Teams: ' || playoff_teams);
pg_state_info.Count_CollegeTeam(state_number, college_teams);
DBMS_OUTPUT.PUT_LINE('Number of College Teams in Database: ' || college_teams);
End;
/
Drop Package pg_state_info;
```

Input: State Number: 8 [enter]

Output:

State: California

Region: West

Number of NBA Teams: 4

Number of NBA Playoff Teams: 2

Number of College Teams in Database: 1

PL/SQL procedure successfully completed.

4. Marc Gasol has just been traded from the Memphis Grizzlies to the Toronto Raptors. Create a package to show his name and his current team (Memphis Grizzlies) then update his new team (Raptors), and his new General Manager. You will also have him replace Serge Ibaka in the starting lineup, and you'll have to update Marc Gasol's stats to match his Toronto stats. Select the Toronto players from both the nonrookiestarter and the nonrookiestarterstats table to show the change. Drop the package right after. – 110 lines.

```
Create or Replace Package pg_GasolRaptors IS
function find_team (p_name nonrookiestarter.pname%type) return team.name%type;
procedure update_team (p_name IN nonrookiestarter.pname%type, t_number IN
nonrookiestarter.teamnumber%type);
```

```
procedure update_ssn (p_name IN nonrookiestarter.pname%type, p_gmssn IN
nonrookiestarter.gmssn%type);

procedure update_ssn1 (p_name IN nonrookiestarter.pname%type, p_gmssn1 IN
nonrookiestarterstats.gmssn%type);

procedure replace_starter (p_name IN nonrookiestarter.pname%type);

procedure replace_starter1 (p_name IN nonrookiestarter.pname%type);

procedure update_ppg (p_name IN nonrookiestarter.pname%type, p_ppg IN
nonrookiestarterstats.ppg%type);

procedure update_rpg (p_name IN nonrookiestarter.pname%type, p_rpg IN
nonrookiestarterstats.rpg%type);

end pg_GasolRaptors;

/

Create or Replace Package body pg_GasolRaptors AS

-- find team to output his old team

function find_team (p_name nonrookiestarter.pname%type) return team.name%type

IS

   team_name team.name%type;

Begin

   select name into team_name

   from team, nonrookiestarter

   where p_name = pname

   and teamnumber = teamid;

   Return team_name;

End find_team;

-- update his new info, 2 ssn updates for both nonrookiestarter and nonrookiestarter stats
tables

procedure update_team (p_name IN nonrookiestarter.pname%type, t_number IN
nonrookiestarter.teamnumber%type)

IS
```

```
Begin
   update NonRookieStarter
   set teamnumber = t_number
   where p_name = pname;
   Commit;
   End update_team;
procedure update_ssn (p_name IN nonrookiestarter.pname%type, p_gmssn IN
nonrookiestarter.gmssn%type)
IS
BEGIN
update NonRookieStarter
   set gmssn = p_gmssn
   where p_name = pname;
   Commit;
   End update_ssn;
procedure update_ssn1 (p_name IN nonrookiestarter.pname%type, p_gmssn1 IN
nonrookiestarterstats.gmssn%type)
IS
BEGIN
update NonRookieStarterStats
   set gmssn = p_gmssn1
   where p_name = pname;
   Commit;
   End update_ssn1;
-- need 2 of these procedures to update both nonrookiestarter and nonrookiestarter stats
tables
procedure replace_starter (p_name IN nonrookiestarter.pname%type)
IS
```

```
Begin
   delete from nonrookiestarter where p_name = pname;
   Commit;
   End Replace_Starter;
procedure replace_starter1 (p_name IN nonrookiestarter.pname%type)
IS
Begin
   delete from nonrookiestarterstats where p_name = pname;
   Commit;
   End Replace_Starter1;
-- update his new stats
procedure update_ppg (p_name IN nonrookiestarter.pname%type, p_ppg IN
nonrookiestarterstats.ppg%type)
IS
Begin
   update NonRookieStarterStats
   set ppg = p_ppg
   where pname = p_name;
   Commit;
   End Update_PPG;
procedure update_rpg (p_name IN nonrookiestarter.pname%type, p_rpg IN
nonrookiestarterstats.rpg%type)
IS
Begin
   update NonRookieStarterStats
   set rpg = p_rpg
   where pname = p_name;
   Commit;
```

```
   End Update_RPG;
end;
/
Set ServerOutput On;
Declare --- prompt the user to input his name, new team number, GM's ssn, and replaced starter
player_name nonrookiestarter.pname%type;
team_number nonrookiestarter.teamnumber%type;
team_name team.name%type;
city_name team.city%type;
Begin
player_name := '&Player';
team_name := pg_GasolRaptors.find_team(player_name);
select city into city_name
from team
where team_name = name;
DBMS_OUTPUT.PUT_LINE('Player: ' || trim(player_name));
DBMS_OUTPUT.PUT_LINE('Old Team: ' || trim(city_name) || ' ' || trim(team_name));
pg_GasolRaptors.update_team(player_name,'&TeamNumber');
pg_GasolRaptors.update_ssn(player_name,'&GMSSN');
pg_GasolRaptors.update_ssn1(player_name,'&GMSSN');
pg_GasolRaptors.replace_starter('&playername');
pg_GasolRaptors.replace_starter1('&playername');
pg_GasolRaptors.update_ppg(player_name,7.5);
pg_GasolRaptors.update_rpg(player_name,6.1);
End;
/
```

drop package pg_GasolRaptors;

Input: Marc Gasol [enter] 28 [enter] 920202014 [enter] 920202014 [enter] Serge Ibaka [enter] Serge Ibaka [enter]

Output:

Player: Marc Gasol

Team: Memphis Grizzlies

PL/SQL procedure successfully completed.

(note: used select * statements with non rookie starters and his stats where team number = 28 to show the updates)

PNAME	NAME
Marc Gasol	Raptors
Kyle Lowry	Raptors
Danny Green	Raptors
Kawhi Leonard	Raptors
Pascal Siakam	Raptors

PNAME	PPG	RPG	APG
Marc Gasol	7.5	6.1	4.7
Kyle Lowry	14.8	4.8	9
Danny Green	10.2	4.1	1.5
Kawhi Leonard	27.2	7.4	3.3
Pascal Siakam	16.8	6.9	3.1

Package PG_GASOLRAPTORS dropped.

5. Use a package to create a top 5 of the next draft class. Call functions to find the team picking, the draftee they select, and the college the draftee went to. Also store a procedure to insert

them into a new table called Draft19_results that'll store the draftee's id, name, team number, and pick number. Have an exception in there for when a team has already picked and "picks again." – 159 lines.

```
Create Table Draft19_Results ( -- creating a new table for the draft

DrafteeID int NOT NULL PRIMARY KEY,

DrafteeName varchar(30),

TeamNumber int,

Pick int,

FOREIGN KEY (TEAMNUMBER) References Team(TeamID));

Create or Replace Package pg_draft19 IS

function find_team (t_team team.teamid%type) return team.name%type;

function find_college (p_playercollege draftees.collegeid%type) return college.collname%type;

function find_player (p_playernum draftees.playerid%type) return draftees.drafteename%type;

procedure pick_player(t_draftid IN draft19_results.drafteeid%type, t_pick IN
draft19_results.drafteename%type, t_team IN draft19_results.teamnumber%type, t_picknum
IN draft19_results.pick%type);

End pg_draft19;

/

-- using a package to start the draft

Create or Replace Package body pg_draft19 AS

function find_team (t_team team.teamid%type) return team.name%type

IS

team_name team.name%type;

Begin

select name into team_name

from team

where t_team = teamid;

return team_name;
```

```
end find_team;
function find_college (p_playercollege draftees.collegeid%type) return college.collname%type
IS
college_name college.collname%type;
Begin
select collname into college_name
from college
where p_playercollege = collno;
return college_name;
end find_college;
function find_player (p_playernum draftees.playerid%type) return draftees.drafteename%type
IS
player_name draftees.drafteename%type;
Begin
select drafteename into player_name
from draftees
where p_playernum = playerid;
return player_name;
end find_player;
procedure pick_player(t_draftid IN draft19_results.drafteeid%type, t_pick IN
draft19_results.drafteename%type, t_team IN draft19_results.teamnumber%type, t_picknum
IN draft19_results.pick%type)
Is
Begin insert into Draft19_Results values(t_draftid, t_pick, t_team, t_picknum);
End pick_player;
End;
/
Set ServerOutput On;
```

```
Declare
ex_teamnum_pk EXCEPTION; -- exception if a team number is already used
PRAGMA Exception_INIT(ex_teamnum_pk, -00001);
team1 team.name%type; -- need 5 of each since variable you need the first 5 picks
team2 team.name%type;
team3 team.name%type;
team4 team.name%type;
team5 team.name%type;
city1 team.city%type;
city2 team.city%type;
city3 team.city%type;
city4 team.city%type;
city5 team.city%type;
team_num1 team.teamid%type;
team_num2 team.teamid%type;
team_num3 team.teamid%type;
team_num4 team.teamid%type;
team_num5 team.teamid%type;
player_name1 draft19_results.drafteename%type;
player_name2 draft19_results.drafteename%type;
player_name3 draft19_results.drafteename%type;
player_name4 draft19_results.drafteename%type;
player_name5 draft19_results.drafteename%type;
player_num1 draftees.playerid%type;
player_num2 draftees.playerid%type;
player_num3 draftees.playerid%type;
player_num4 draftees.playerid%type;
```

```
player_num5 draftees.playerid%type;
college1 college.collname%type;
college2 college.collname%type;
college3 college.collname%type;
college4 college.collname%type;
college5 college.collname%type;
college_num1 draftees.collegeid%type;
college_num2 draftees.collegeid%type;
college_num3 draftees.collegeid%type;
college_num4 draftees.collegeid%type;
college_num5 draftees.collegeid%type;
Begin -- calling all the functions to start the draft and show the output
team_num1 := '&FirstPick';
team1 := pg_draft19.find_team(team_num1);
select city into city1
from team
where team_num1 = teamid;
player_num1 := '&FirPick';
player_name1 := pg_draft19.find_player(player_num1);
college_num1 := '&College';
college1 := pg_draft19.find_college(college_num1);
pg_draft19.pick_player(player_num1, player_name1, team_num1, 1);
DBMS_OUTPUT.PUT_LINE('With the first pick in the NBA draft, the ' || city1 || ' ' || team1 || '
selects ...');
DBMS_OUTPUT.PUT_LINE(trim(player_name1) || ' from ' || trim(college1));
DBMS_OUTPUT.PUT_LINE('----------------------------------------');
team_num2 := '&SecondPick';
```

```
team2 := pg_draft19.find_team(team_num2);

select city into city2

from team

where team_num2 = teamid;

player_num2 := '&SecPick';

player_name2 := pg_draft19.find_player(player_num2);

college_num2 := '&College';

college2 := pg_draft19.find_college(college_num2);

pg_draft19.pick_player(player_num2, player_name2, team_num2, 2);

DBMS_OUTPUT.PUT_LINE('With the second pick in the NBA draft, the ' || city2 || ' ' || team2
|| ' select ...');

DBMS_OUTPUT.PUT_LINE(trim(player_name2) || ' from ' || trim(college2));

DBMS_OUTPUT.PUT_LINE('----------------------------------------');

team_num3 := '&ThirdPick';

team3 := pg_draft19.find_team(team_num3);

select city into city3

from team

where team_num3 = teamid;

player_num3 := '&ThrdPick';

player_name3 := pg_draft19.find_player(player_num3);

college_num3 := '&College';

college3 := pg_draft19.find_college(college_num3);

pg_draft19.pick_player(player_num3, player_name3, team_num3, 3);

DBMS_OUTPUT.PUT_LINE('With the third pick in the NBA draft, the ' || city3 || ' ' || team3 || '
select ...');

DBMS_OUTPUT.PUT_LINE(trim(player_name3) || ' from ' || trim(college3));

DBMS_OUTPUT.PUT_LINE('----------------------------------------');

team_num4 := '&FourthPick';
```

```
team4 := pg_draft19.find_team(team_num4);

select city into city4

from team

where team_num4 = teamid;

player_num4 := '&FrthPick';

player_name4 := pg_draft19.find_player(player_num4);

college_num4 := '&College';

college4 := pg_draft19.find_college(college_num4);

pg_draft19.pick_player(player_num4, player_name4, team_num4, 4);

DBMS_OUTPUT.PUT_LINE('With the fourth pick in the NBA draft, the ' || city4 || ' ' || team4 ||
' select ...');

DBMS_OUTPUT.PUT_LINE(trim(player_name4) || ' from ' || trim(college4));

DBMS_OUTPUT.PUT_LINE('----------------------------------------');

team_num5 := '&FifthPick';

team5 := pg_draft19.find_team(team_num5);

select city into city5

from team

where team_num5 = teamid;

player_num5 := '&FfthPick';

player_name5 := pg_draft19.find_player(player_num5);

college_num5 := '&College';

college5 := pg_draft19.find_college(college_num5);

pg_draft19.pick_player(player_num5, player_name5, team_num5, 5);

DBMS_OUTPUT.PUT_LINE('With the fifth pick in the NBA draft, the ' || city5 || ' ' || team5 || '
select ...');

DBMS_OUTPUT.PUT_LINE(trim(player_name5) || ' from ' || trim(college5));

DBMS_OUTPUT.PUT_LINE('----------------------------------------');

Exception -- what shows up when a team already picked
```

When ex_teamnum_pk THEN

DBMS_OUTPUT.PUT_LINE('Team is already in the table');

End;

/

Drop package pg_draft19;

Drop table Draft19_Results;

Input: 3 [enter] 1 [enter], 20 [enter], 23 [enter] 2 [enter], 20 [enter], 6 [enter], 11 [enter], 30 [enter], 25 [enter] 6 [enter], 95 [enter], 8 [enter] 3 [enter], 90 [enter]

Output:

With the first pick in the NBA draft, the Atlanta Hawks selects ...

Zion Williamson from Duke

With the second pick in the NBA draft, the New York Knicks select ...

RJ Barrett from Duke

With the third pick in the NBA draft, the Chicago Bulls select ...

Ja Morant from Murray State

With the fourth pick in the NBA draft, the Phoenix Suns select ...

Darius Garland from Vanderbilt

With the fifth pick in the NBA draft, the Cleveland Cavaliers select ...

Jarrett Culver from Texas Tech

PL/SQL procedure successfully completed.

6. Use a procedure to gather a team's total salary of non-rookie starters, number of All-Stars, number of players averaging more than 20 points per game (PPG), and the average 3-point

percentage of the non-rookie starters. Then use an exception to display the error of inserting a rookie into an invalid team number. Finally, use cursors to gather the selected team's salary, number of max contract spots available, and wins-losses record – 77 lines

```
Set ServerOutput On;
CREATE OR REPLACE PROCEDURE Team_Info -- procedure to get the team's info
   (t_teamnumber     IN   nonrookiestarter.teamnumber%type,
   t_SumStartSal    OUT Number,
   t_NumAllStars  OUT Number,
   t_NumTwentyPointScorers OUT NUMBER,
   t_AvgThreePtStarter OUT Number)
   IS
BEGIN
   select sum(salary),count(AllStar) into t_SumStartSal, t_NumAllStars
   from NonRookieStarter where teamnumber = t_teamnumber
   and AllStar = 'Yes'; -- count All Star functions means it has to equal yes
   select count(S.PPG),avg(S.THREEPT) into t_NumTwentyPointScorers,t_AvgThreePtStarter
   from nonrookiestarterstats S, nonrookiestarter R
   where S.PlayID = R.PlayerID
   and S.GMSSN = R.GMSSN
   and R.TeamNumber = t_teamnumber
   and S.PPG > 20;
END;
/
Declare
t_teamid nonrookiestarter.teamnumber%type;
gm_first generalmanager.gmfirst%type;
gm_last generalmanager.gmfirst%type;
sum_sal number;
```

```
num_AllStars number;
count_twentyptscorers number;
avg_threeptshooting number;
FK_Team Exception; -- exception will be used when trying to insert a new player into a
nonexisting team
PRAGMA EXCEPTION_INIT(FK_Team,-2291);
Cursor Money_Cursor Is -- cursor to get the team's money and information
   Select cap_room, numofmaxspots
   from teammoney
   where tNum = t_teamid;
Type type_money_cursor IS RECORD
(cap teammoney.cap_room%type,
max_slots teammoney.numofmaxspots%type);
tm_cur type_money_cursor;
Cursor Record_Cursor Is -- get team's record
   Select wins, losses
   from teamrecord
   where tNum = t_teamid;
Type type_record_cursor IS RECORD
(winz teamrecord.wins%type,
l_s teamrecord.losses%type);
tr_cur type_record_cursor;
begin
select teamnum, gmfirst, gmlast into t_teamid, gm_first, gm_last
from generalmanager where teamnum = '&TeamNumber'; -- user prompted team number
Team_Info(t_teamid, sum_sal, num_AllStars, count_twentyptscorers, avg_threeptshooting);
DBMS_OUTPUT.PUT_LINE('Team Number: ' || t_teamid); -- displaying info
```

```
DBMS_OUTPUT.PUT_LINE('General Manager Name: ' || gm_first || ' ' || gm_last);

DBMS_OUTPUT.PUT_LINE('Total Annual Salary of Non-Rookie Starters: ' || sum_sal);

DBMS_OUTPUT.PUT_LINE('Number of All-Stars: ' || num_AllStars);

DBMS_OUTPUT.PUT_LINE('Number of players that averaged more than 20 PPG: ' ||
count_twentyptscorers);

DBMS_OUTPUT.PUT_LINE('Average 3-Point Percentage from Non Rookie Starters: ' ||
avg_threeptshooting ||' percent');

DBMS_OUTPUT.PUT_LINE(' ');

insert into rookies values (444,'John Doe',31,'USA',1,77,5,59);

Exception

When FK_Team THEN

DBMS_OUTPUT.PUT_LINE('Team ID not found');

DBMS_OUTPUT.PUT_LINE(' ');

DBMS_OUTPUT.PUT_LINE('Cap Room'|| '      '|| 'Max Spots');

OPEN Money_Cursor;

LOOP

Fetch Money_Cursor INTO tm_cur;

EXIT WHEN Money_Cursor%NOTFOUND;

DBMS_OUTPUT.PUT_LINE(tm_cur.cap|| '       ' || tm_cur.max_slots);

DBMS_OUTPUT.PUT_LINE(' ');

END LOOP;

CLOSE Money_Cursor;

DBMS_OUTPUT.PUT_LINE('Wins'|| '      '|| 'Losses');

OPEN Record_Cursor;

LOOP

Fetch Record_Cursor INTO tr_cur;

EXIT WHEN Record_Cursor%NOTFOUND;

DBMS_OUTPUT.PUT_LINE(tr_cur.winz|| '   -    ' || tr_cur.l_s);
```

END LOOP;

CLOSE Record_Cursor;

END;

Input: 22 [enter]

Output:

Team Number: 22

General Manager Name: Nathan Chester

Total Annual Salary of Non-Rookie Starters: 45913029

Number of All-Stars: 2

Number of players that averaged more than 20 PPG: 1

Average 3-Point Percentage from Non Rookie Starters: 29 percent

Team ID not found

Cap Room Max Spots

20431049

Wins Losses

54 - 28

PL/SQL procedure successfully completed.

7. Use a series of functions to insert a new player's user-created data into the NonRookieStarter and NonRookieStarterStats tables. Then display all his data, as well as the team he's on and his general manager. Set an exception to prevent a duplicate player ID from being inserted. – 308 lines.

```
CREATE OR REPLACE FUNCTION find_gmssn ( p_playerid nonrookiestarter.playerid%TYPE ) --
function to find general manager's ssn

RETURN nonrookiestarter.gmssn%type IS --using the inputted gmssn

gen_man nonrookiestarter.pname%type;

begin

select gmssn into gen_man

from nonrookiestarter

where p_playerid = playerid;

return gen_man;

end;

/

CREATE OR REPLACE FUNCTION find_pname ( p_playerid nonrookiestarter.playerid%TYPE ) --
function to find name

RETURN nonrookiestarter.pname%type IS --using the inputted player name

player_name nonrookiestarter.pname%type;

begin

select pname into player_name

from nonrookiestarter

where p_playerid = playerid;

return player_name;

end;

/

Create or Replace Function find_team (p_teamid nonrookiestarter.teamnumber%type)

Return team.name%type IS -- find team

player_team team.name%type;

begin

select name into player_team

from team
```

```
where p_teamid = teamid;
return player_team;
end;
/
CREATE OR REPLACE FUNCTION find_jersey ( p_playerid nonrookiestarter.playerid%TYPE )
RETURN number IS -- find the user-inputted jersey number
jersey_num nonrookiestarter.jerseynum%type;
begin
select jerseynum into jersey_num
from nonrookiestarter
where p_playerid = playerid;
return jersey_num;
end;
/
CREATE OR REPLACE FUNCTION find_draftpicknum (p_playerid nonrookiestarter.playerid%TYPE
)
RETURN number IS -- find the user-inputted draft pick number
player_pick nonrookiestarter.draftpicknum%type;
begin
select draftpicknum into player_pick
from nonrookiestarter
where p_playerid = playerid;
return player_pick;
end;
/
CREATE OR REPLACE FUNCTION find_position( p_playerid nonrookiestarter.playerid%TYPE )
RETURN number IS -- find the user-inputted player position
```

```
player_position nonrookiestarter.position%type;
begin
select position into player_position
from nonrookiestarter
where p_playerid = playerid;
return player_position;
end;
/
Create or Replace Function find_AllStar (p_playerid nonrookiestarter.playerid%type)
Return nonrookiestarter.allstar%type IS -- find whether he was an All-Star or not
player_allstar nonrookiestarter.allstar%type;
begin
select allstar into player_allstar
from nonrookiestarter
where p_playerid = playerid;
return player_allstar;
end;
/
Create or Replace Function find_salary (p_playerid nonrookiestarter.playerid%type)
return nonrookiestarter.salary%type IS -- find the user-inputted salary
player_salary nonrookiestarter.salary%type;
begin
select salary into player_salary
from nonrookiestarter
where p_playerid = playerid;
return player_salary;
end;
```

```
/
Create or Replace Function find_conference (p_teamid nonrookiestarter.teamnumber%type)
return nonrookiestarter.conference%type IS -- find the conference based off the team
player_conference nonrookiestarter.conference%type;
Begin
   if p_teamID = 5 then player_conference := 'Western';
   elsif p_teamID = 10 then player_conference := 'Western';
   elsif p_teamID = 7 then player_conference := 'Eastern';
   elsif p_teamID = 11 then player_conference := 'Western';
   elsif p_teamID = 30 then player_conference := 'Western';
   elsif p_teamID = 1 then player_conference := 'Western';
   elsif p_teamID = 22 then player_conference := 'Eastern';
   elsif p_teamID = 2 then player_conference := 'Western';
   elsif p_teamID = 13 then player_conference := 'Eastern';
   elsif p_teamID = 3 then player_conference := 'Eastern';
   elsif p_teamID = 4 then player_conference := 'Eastern';
   elsif p_teamID = 6 then player_conference := 'Eastern';
   elsif p_teamID = 8 then player_conference := 'Eastern';
   elsif p_teamID = 9 then player_conference := 'Western';
   elsif p_teamID = 12 then player_conference := 'Western';
   elsif p_teamID = 14 then player_conference := 'Eastern';
   elsif p_teamID = 15 then player_conference := 'Western';
   elsif p_teamID = 16 then player_conference := 'Eastern';
   elsif p_teamID = 18 then player_conference := 'Eastern';
   elsif p_teamID = 19 then player_conference := 'Eastern';
   elsif p_teamID = 20 then player_conference := 'Western';
   elsif p_teamID = 21 then player_conference := 'Western';
```

```
   elsif p_teamID = 23 then player_conference := 'Eastern';
   elsif p_teamID = 24 then player_conference := 'Western';
   elsif p_teamID = 25 then player_conference := 'Western';
   elsif p_teamID = 26 then player_conference := 'Western';
   elsif p_teamID = 27 then player_conference := 'Western';
   elsif p_teamID = 28 then player_conference := 'Eastern';
   elsif p_teamID = 29 then player_conference := 'Eastern';
   End IF;
Return player_conference;
End;
/
Create or Replace Function find_experience (p_playerid nonrookiestarter.playerid%type)
Return number IS -- find the user-inputted experience
player_experience nonrookiestarter.experience%type;
Begin
select experience into player_experience
from nonrookiestarter
where p_playerid = playerid;
return player_experience;
end;
/
-- find the user-inputted statistics
Create or Replace Function find_PPG (p_playerid nonrookiestarter.playerid%type)
Return nonrookiestarterstats.ppg%type IS
player_ppg nonrookiestarterstats.ppg%type;
Begin
select ppg into player_ppg
```

```
from nonrookiestarterstats
where playid = p_playerid;
return player_ppg;
end;
/
Create or Replace Function find_RPG (p_playerid nonrookiestarter.playerid%type)
Return nonrookiestarterstats.rpg%type IS
player_rpg nonrookiestarterstats.ppg%type;
Begin
select rpg into player_rpg
from nonrookiestarterstats
where playid = p_playerid;
return player_rpg;
end;
/
Create or Replace Function find_APG (p_playerid nonrookiestarter.playerid%type)
Return nonrookiestarterstats.apg%type IS
player_apg nonrookiestarterstats.apg%type;
Begin
select apg into player_apg
from nonrookiestarterstats
where playid = p_playerid;
return player_apg;
end;
/
Create or Replace Function find_ThreePT (p_playerid nonrookiestarter.playerid%type)
Return nonrookiestarterstats.threept%type IS
```

```
player_threept nonrookiestarterstats.ppg%type;
Begin
select threept into player_threept
from nonrookiestarterstats
where playid = p_playerid;
return player_threept;
end;
/
Create or Replace Function find_FGPERC (p_playerid nonrookiestarter.playerid%type)
Return nonrookiestarterstats.fg_perc%type IS
player_FG nonrookiestarterstats.fg_perc%type;
Begin
select fg_perc into player_FG
from nonrookiestarterstats
where playid = p_playerid;
return player_FG;
end;
/
Create or Replace Function find_height (p_playerid nonrookiestarter.playerid%type)
Return nonrookiestarterstats.height%type IS
player_height nonrookiestarterstats.height%type;
Begin
select height into player_height
from nonrookiestarterstats
where playid = p_playerid;
return player_height;
end;
```

```
/
Create or Replace Function find_age (p_playerid nonrookiestarter.playerid%type)
Return nonrookiestarterstats.age%type IS
player_age nonrookiestarterstats.age%type;
Begin
select age into player_age
from nonrookiestarterstats
where playid = p_playerid;
return player_age;
end;
/
SET SERVEROUTPUT ON;
DECLARE
 ex_playerid_pk EXCEPTION; -- exception declaration
 PRAGMA EXCEPTION_INIT (ex_playerid_pk, -2291); -- set exception equal to a duplicate playerID error
in_playerID nonrookiestarter.playerid%type; -- the in_variable declarations are used to prompt the user to insert data
in_gmssn  nonrookiestarter.gmssn%type;
in_pname nonrookiestarter.pname%type;
in_teamID nonrookiestarter.teamnumber%type;
in_jersey nonrookiestarter.jerseynum%type;
in_draftpick nonrookiestarter.draftpicknum%type;
in_position nonrookiestarter.position%type;
in_allstar nonrookiestarter.allstar%type;
in_salary nonrookiestarter.salary%type;
in_conference nonrookiestarter.conference%type;
in_experience nonrookiestarter.experience%type;
```

in_ppg nonrookiestarterstats.ppg%type;

in_rpg nonrookiestarterstats.rpg%type;

in_apg nonrookiestarterstats.apg%type;

in_three nonrookiestarterstats.threept%type;

in_fg nonrookiestarterstats.fg_perc%type;

in_height nonrookiestarterstats.height%type;

in_age nonrookiestarterstats.age%type;

pname nonrookiestarter.pname%type; -- rest of these are used to find the variables in the functions above

gm_ssn nonrookiestarter.gmssn%type;

jersey nonrookiestarter.jerseynum%type;

draftpick nonrookiestarter.draftpicknum%type;

position nonrookiestarter.position%type;

allstar nonrookiestarter.allstar%type;

salary nonrookiestarter.salary%type;

experience nonrookiestarter.experience%type;

p_team team.name%type;

gm_first generalmanager.gmfirst%type;

gm_last generalmanager.gmlast%type;

p_city team.city%type;

p_ppg nonrookiestarterstats.ppg%type;

p_rpg nonrookiestarterstats.rpg%type;

p_apg nonrookiestarterstats.apg%type;

p_three nonrookiestarterstats.threept%type;

p_fg nonrookiestarterstats.fg_perc%type;

p_height nonrookiestarterstats.height%type;

p_age nonrookiestarterstats.age%type;

```
begin --begin
in_pname:='&Name'; --user inputs all the data for the tables
in_playerID:='&PlayerID';
in_gmssn:='&GMSSN';
in_teamID:='&TeamID';
in_jersey:='&JerseyNumber';
in_draftpick:='&DraftPickNumber';
in_position:='&position';
in_salary:='&salary';
in_allstar:='&AllStar';
in_conference := find_conference(in_teamID);
in_experience := '&Experience';
in_ppg := '&Points';
in_rpg := '&Rebounds';
in_apg := '&Assists';
in_three := '&ThreePT';
in_fg := '&FieldGoal';
in_height := '&Height';
in_age := '&Age';
dbms_output.put_line('');
-- insert the user-inputted data into the tables
insert into NonRookieStarter values(in_playerid,in_gmssn, in_pname,in_teamID, in_jersey ,
in_draftpick
,in_position,in_allstar,in_salary,in_conference,in_experience);
insert into NonRookieStarterStats values(in_playerid, in_gmssn, in_pname, in_ppg,
in_rpg, in_apg, in_three, in_fg, in_height, in_age);
 dbms_output.put_line('New Player!');
```

```
 -- call the functions
 pname := find_pname(in_playerid);
 gm_ssn := find_gmssn(in_playerid);
p_team  := find_team(in_teamid);
jersey  := find_jersey(in_playerid);
draftpick  := find_draftpicknum(in_playerid);
position  := find_position(in_playerid);
allstar  := find_allstar(in_playerid);
salary  := find_salary(in_playerid);
experience  := find_experience(in_playerid);
p_ppg := find_ppg(in_playerid);
p_rpg := find_rpg(in_playerid);
p_apg := find_apg(in_playerid);
p_three := find_threept(in_playerid);
p_fg := find_FGPERC(in_playerid);
p_height := find_height(in_playerid);
p_age := find_age(in_playerid);
select gmfirst, gmlast into gm_first, gm_last -- retrieve the name of the GM from the inputted
SSN
from generalmanager
where ssn = gm_ssn;
select city into p_city -- retrieve the city of the Team from the inputted team number
from team
where teamid = in_TeamID;
dbms_output.put_line(''); -- display the inputted data
dbms_output.put_line('Player Name: '||trim(pname));
dbms_output.put_line('General Manager: ' || trim(gm_first) || ' ' || trim(gm_last));
```

```
dbms_output.put_line('New Team: ' || p_city || ' ' ||p_team);
dbms_output.put_line('Jersey Number: '||jersey);
dbms_output.put_line('Draft Pick Number: '|| draftpick);
dbms_output.put_line('Salary: '||TO_CHAR(salary,'$99,999,999.00'));
dbms_output.put_line('Position: '||position);
dbms_output.put_line('Height: ' || p_height || ' inches');
dbms_output.put_line('Age: ' || p_age);
dbms_output.put_line('Years in the NBA: '|| experience);
dbms_output.put_line(' ');
dbms_output.put_line('Stats');
dbms_output.put_line('Points per game: ' || p_ppg);
dbms_output.put_line('Rebounds per game: ' || p_rpg);
dbms_output.put_line('Assists per game: ' || p_apg);
dbms_output.put_line('Three-Point Percentage: ' || p_three);
dbms_output.put_line('Field-Goal Percentage: ' || p_fg);
EXCEPTION
 WHEN ex_playerid_pk THEN
 DBMS_OUTPUT.PUT_LINE('Player ID already in system. Try again.');
end;
```

Input: Jonas Valanciunas [enter] 555 [enter] 345678901 [enter] 5 [enter]] 17 [enter] 5 [enter] 5 [enter] 17500000 [enter] No [enter] 7 [enter] 19.9 [enter] 10.7 [enter] 2.2 [enter] 27.8 [enter] 54.5 [enter] 84 [enter] 27 [enter]

Output:

New Player!

Player Name: Jonas Valanciunas

General Manager: Stuart Carter

New Team: Memphis Grizzlies

Jersey Number: 17

Draft Pick Number: 5

Salary: $17,500,000.00

Position: 5

Height: 84 inches

Age: 26

Years in the NBA: 7

Stats

Points per game: 19.9

Rebounds per game: 10.7

Assists per game: 2.2

Three-Point Percentage: 27.8

Field-Goal Percentage: 54.5

PL/SQL procedure successfully completed.

8. Show the teams and its records in the draft range of Tyler Herro, Darius Garland, and Romeo Langford. Also include each player's college, classification, position, and his stats. – 110 lines

```
SET SERVEROUTPUT ON
Declare
CURSOR dplayer IS -- cursor for player one
select drafteename, collname, mascot, position, ppg, rpg, apg, threept, fg_perc, classification
from Draftees, DrafteeStats, College
where CollNo = CollegeID
and PlayerID = DraftID
```

```
and drafteename = 'Tyler Herro';
CURSOR drange IS
select D.City, D.Team, R.wins, R.losses
from DraftTeam D, TeamRecord R
where D.tNum = R.tNum
and D.draft_range = (select exp_draft_range -- use division to get teams only in that draft range
from Draftees
where DrafteeName = 'Tyler Herro')
Order By Wins DESC;
CURSOR dplayer1 IS -- cursor for player 2
select drafteename, collname, mascot, position, ppg, rpg, apg, threept, fg_perc, classification
from Draftees, DrafteeStats, College
where CollNo = CollegeID
and PlayerID = DraftID
and drafteename = 'Darius Garland';
CURSOR drange1 IS
select D.City, D.Team, R.wins, R.losses
from DraftTeam D, TeamRecord R
where D.tNum = R.tNum
and D.draft_range = (select exp_draft_range  -- use division to get teams only in that draft
range
from Draftees
where DrafteeName = 'Darius Garland')
Order By Wins DESC;
CURSOR dplayer2 IS -- cursor for player 3
select drafteename, collname, mascot, position, ppg, rpg, apg, threept, fg_perc, classification
from Draftees, DrafteeStats, College
```

```
where CollNo = CollegeID
and PlayerID = DraftID
and drafteename = 'Romeo Langford';
CURSOR drange2 IS
select D.City, D.Team, R.wins, R.losses
from DraftTeam D, TeamRecord R
where D.tNum = R.tNum
and D.draft_range = (select exp_draft_range  -- use division to get teams only in that draft range
from Draftees
where DrafteeName = 'Romeo Langford')
Order By Wins DESC;
Begin -- display player info
for rec_dplayer in dplayer
LOOP
DBMS_OUTPUT.PUT_LINE('Player Info');
DBMS_OUTPUT.PUT_LINE('Name: ' || rec_dplayer.drafteename);
DBMS_OUTPUT.PUT_LINE('College: ' || rec_dplayer.collname || ' ' || rec_dplayer.mascot);
DBMS_OUTPUT.PUT_LINE('Position: ' || rec_dplayer.position);
DBMS_OUTPUT.PUT_LINE('Points Per Game: ' || rec_dplayer.ppg);
DBMS_OUTPUT.PUT_LINE('Rebounds Per Game: ' || rec_dplayer.rpg);
DBMS_OUTPUT.PUT_LINE('Assists Per Game: ' || rec_dplayer.apg);
DBMS_OUTPUT.PUT_LINE('Three Point Percentage: ' || rec_dplayer.threept);
DBMS_OUTPUT.PUT_LINE('Field Goal Percentage: ' || rec_dplayer.fg_perc);
DBMS_OUTPUT.NEW_LINE;
End Loop;
DBMS_OUTPUT.PUT_LINE('Teams That Could Draft Tyler Herro');
```

```
DBMS_OUTPUT.NEW_LINE;
For rec_drange IN drange -- display teams in draft range
LOOP
DBMS_OUTPUT.PUT_LINE('Team: ' || rec_drange.city || ' ' || rec_drange.team);
DBMS_OUTPUT.PUT_LINE('Record: ' || rec_drange.wins || ' - ' || rec_drange.losses);
DBMS_OUTPUT.PUT_LINE(' ');
End Loop;
DBMS_OUTPUT.PUT_LINE(' -------------------------- ');
for rec_dplayer1 in dplayer1 -- display player info
LOOP
DBMS_OUTPUT.PUT_LINE('Player Info');
DBMS_OUTPUT.PUT_LINE('Name: ' || rec_dplayer1.drafteename);
DBMS_OUTPUT.PUT_LINE('College: ' || rec_dplayer1.collname || ' ' || rec_dplayer1.mascot);
DBMS_OUTPUT.PUT_LINE('Position: ' || rec_dplayer1.position);
DBMS_OUTPUT.PUT_LINE('Points Per Game: ' || rec_dplayer1.ppg);
DBMS_OUTPUT.PUT_LINE('Rebounds Per Game: ' || rec_dplayer1.rpg);
DBMS_OUTPUT.PUT_LINE('Assists Per Game: ' || rec_dplayer1.apg);
DBMS_OUTPUT.PUT_LINE('Three Point Percentage: ' || rec_dplayer1.threept);
DBMS_OUTPUT.PUT_LINE('Field Goal Percentage: ' || rec_dplayer1.fg_perc);
DBMS_OUTPUT.NEW_LINE;
End Loop;
DBMS_OUTPUT.PUT_LINE('Teams That Could Draft Darius Garland');
DBMS_OUTPUT.NEW_LINE;
For rec_drange1 IN drange1 -- display teams in range
LOOP
DBMS_OUTPUT.PUT_LINE('Team: ' || rec_drange1.city || ' ' || rec_drange1.team);
DBMS_OUTPUT.PUT_LINE('Record: ' || rec_drange1.wins || ' - ' || rec_drange1.losses);
```

```
End Loop;
DBMS_OUTPUT.PUT_LINE('--------------------------------------------------');
for rec_dplayer2 in dplayer2 -- display player info
LOOP
DBMS_OUTPUT.PUT_LINE('Player Info');
DBMS_OUTPUT.PUT_LINE('Name: ' || rec_dplayer2.drafteename);
DBMS_OUTPUT.PUT_LINE('College: ' || rec_dplayer2.collname || ' ' || rec_dplayer2.mascot);
DBMS_OUTPUT.PUT_LINE('Position: ' || rec_dplayer2.position);
DBMS_OUTPUT.PUT_LINE('Points Per Game: ' || rec_dplayer2.ppg);
DBMS_OUTPUT.PUT_LINE('Rebounds Per Game: ' || rec_dplayer2.rpg);
DBMS_OUTPUT.PUT_LINE('Assists Per Game: ' || rec_dplayer2.apg);
DBMS_OUTPUT.PUT_LINE('Three Point Percentage: ' || rec_dplayer2.threept);
DBMS_OUTPUT.PUT_LINE('Field Goal Percentage: ' || rec_dplayer2.fg_perc);
DBMS_OUTPUT.NEW_LINE;
End Loop;
DBMS_OUTPUT.PUT_LINE('Teams That Could Draft Romeo Langford');
DBMS_OUTPUT.NEW_LINE;
For rec_drange2 IN drange2 -- display teams in range
LOOP
DBMS_OUTPUT.PUT_LINE('Team: ' || rec_drange2.city || ' ' || rec_drange2.team);
DBMS_OUTPUT.PUT_LINE('Record: ' || rec_drange2.wins || ' - ' || rec_drange2.losses);
DBMS_OUTPUT.PUT_LINE(' ');
End Loop;
End;
```

Output:

```
Player Info
```

Name: Tyler Herro

College: Kentucky Wildcats

Position: 2

Points Per Game: 14.1

Rebounds Per Game: 4.6

Assists Per Game: 2.4

Three Point Percentage: 36

Field Goal Percentage: 46.4

Teams That Could Draft Tyler Herro

Team: Utah Jazz

Record: 50 - 32

Team: Portland Trailblazers

Record: 49 - 33

Team: Los Angeles Clippers

Record: 47 - 35

Team: San Antonio Spurs

Record: 47 - 35

Team: Detroit Pistons

Record: 42 - 40

Team: Brooklyn Nets

Record: 40 - 42

Team: Miami Heat

Record: 39 - 43

Player Info

Name: Darius Garland

College: Vanderbilt Commodores

Position: 1

Points Per Game: 16.2

Rebounds Per Game: 3.8

Assists Per Game: 2.6

Three Point Percentage: 47.8

Field Goal Percentage: 53.7

Teams That Could Draft Darius Garland

Team: Minnesota Timberwolves

Record: 42 - 40

Team: Orlando Magic

Record: 39 - 43

Team: Sacramento Kings

Record: 39 - 43

Team: Charlotte Hornets

Record: 36 - 46

Team: Los Angeles Lakers

Record: 35 - 47

Team: New Orleans Pelicans

Record: 35 - 47

Team: Washington Wizards

Record: 34 - 48

Team: Memphis Grizzlies

Record: 33 - 49

Team: Dallas Mavericks

Record: 32 - 50

Player Info

Name: Romeo Langford

College: Indiana Wildcats

Position: 2

Points Per Game: 16.5

Rebounds Per Game: 5.4

Assists Per Game: 2.3

Three Point Percentage: 27.2

Field Goal Percentage: 44.8

Teams That Could Draft Romeo Langford

Team: Milwaukee Bucks

Record: 61 - 21

Team: Golden State Warriors

Record: 58 - 24

Team: Toronto Raptors

Record: 58 - 24

Team: Denver Nuggets

Record: 55 - 27

Team: Philadelphia 76ers

Record: 54 - 28

Team: Houston Rockets

Record: 52 - 30

Team: Oklahoma City Thunder

Record: 49 - 33

Team: Boston Celtics

Record: 49 - 33

Team: Indiana Pacers

Record: 48 - 34

9. Use a delete trigger to iterate through players in a new table that consists of players with more than 12 years of NBA experience. Then, display the player's name, number of years in experience – 82 lines

```
create table OldPlayers
as select * from nonrookiestarter
where experience > 12; --creates table of older players, >12 years of experience
```

```
/
Create Table team2 as select * from team; -- duplicate team table for precaution
/
Create table test_op --creates the table for the trigger
(user_name varchar2(20),
date_time timestamp(6),
num_records number);
/
Create or replace trigger t_dop --this is the delete trigger
After delete on OldPlayers
declare
Num_records Number := 0;
Begin
 Delete from test_op; --after the delete it keeps the total number of records in the table
 Select count(*) into Num_records from OldPlayers;
 Insert into test_op values(user, sysdate, num_records);
End;
/
set serveroutput on
declare
cursor cur is --this is the cursor to iterate through player's name and some info
select pname, city, name, experience
from OldPlayers, Team2
where TeamID = TeamNumber;
validID_fk EXCEPTION;--exception declare
PRAGMA Exception_Init(validID_fk,+0100); --sets exception to a no data found exception
pid OldPlayers.playerid%type; --variables start here
```

```
numrec number; --for initial count of oldplayers and the num records from trigger table
testid number; --for the if player id is valid
begin
pid:='&enter_playerid'; --user inputted player id for delete
select count(PlayerID) --gets the original count for player id into variable numrec
into numrec
from OldPlayers;
 for rec in cur --opens cursor
 loop
 dbms_output.put_line('Player Name: '||rec.pname); --displays cursor
dbms_output.put_line('Years in the NBA: '||rec.experience);--displays cursor
dbms_output.put_line('Current Team: '||rec.city || ' ' || rec.name); --displays cursor
dbms_output.put_line('');
 end loop; --end loop
 dbms_output.put_line('The current total number of players with more than 12 years of
experience is: '||numrec);
 dbms_output.put_line('');
numrec:=0; --resets the variable
dbms_output.put_line('If the entered ID is in the table it will show additional output.
If not then it will raise the exception.'); --displays this message
dbms_output.put_line('');
select count(PlayerID) --checks if the entered id is in the table and if there is 1 record
into testid
from OldPlayers
where PlayerID=pid;
if (testid=1)then --then it will do the following
dbms_output.put_line('Now the player with the entered ID will be retired.');
```

```
dbms_output.put_line('');
delete from OldPlayers
where PlayerID = pid; --delete statement
 select num_records
 into numrec
 from test_op
 where date_time=sysdate; --gets num records as of today
 for rec in cur
 loop
 dbms_output.put_line('Player Name: '||rec.pname); --displays cursor
dbms_output.put_line('Years in the NBA: '||rec.experience);--displays cursor
dbms_output.put_line('Current Team: '||rec.city || ' ' || rec.name); --displays cursor
dbms_output.put_line('');
 end loop; --end loop
 dbms_output.put_line('The current total number of players with more than 12 years of
experience is: '||numrec); --display total emp left
 else
 raise validID_fk; --if id=0 or more than 1 it raises the following exception
 end if;
Exception when validID_fk then --exception start
dbms_output.put_line('');
dbms_output.put_line('');
dbms_output.put_line('');
dbms_output.put_line('The entered ID is not found in table. Try again.'); --end exception
end;
/
 select * from test_OP;
```

drop table OldPlayers;

drop table test_OP;

drop table team2;

Input:

1. 165 [enter] – valid ID

Output:

Player Name: LeBron James

Years in the NBA: 16

Current Team: Los Angeles Lakers

Player Name: Chris Paul

Years in the NBA: 14

Current Team: Houston Rockets

Player Name: JJ Redick

Years in the NBA: 13

Current Team: Philadelphia 76ers

Player Name: Vince Carter

Years in the NBA: 21

Current Team: Atlanta Hawks

Player Name: Dirk Nowitzki

Years in the NBA: 21

Current Team: Dallas Mavericks

Player Name: Paul Millsap

Years in the NBA: 13

Current Team: Denver Nuggets

Player Name: Dwyane Wade

Years in the NBA: 16

Current Team: Miami Heat

Player Name: LaMarcus Aldridge

Years in the NBA: 13

Current Team: San Antonio Spurs

Player Name: Kyle Lowry

Years in the NBA: 13

Current Team: Toronto Raptors

Player Name: Trevor Ariza

Years in the NBA: 15

Current Team: Washington Wizards

The current total number of players with more than 12 years of experience is: 10

If the entered ID is in the table it will show additional output.

If not then it will raise the exception.

Now the player with the entered ID will be retired.

Player Name: LeBron James

Years in the NBA: 16

Current Team: Los Angeles Lakers

Player Name: Chris Paul

Years in the NBA: 14

Current Team: Houston Rockets

Player Name: JJ Redick

Years in the NBA: 13

Current Team: Philadelphia 76ers

Player Name: Vince Carter

Years in the NBA: 21

Current Team: Atlanta Hawks

Player Name: Paul Millsap

Years in the NBA: 13

Current Team: Denver Nuggets

Player Name: Dwyane Wade

Years in the NBA: 16

Current Team: Miami Heat

Player Name: LaMarcus Aldridge

Years in the NBA: 13

Current Team: San Antonio Spurs

Player Name: Kyle Lowry

Years in the NBA: 13

Current Team: Toronto Raptors

Player Name: Trevor Ariza

Years in the NBA: 15

Current Team: Washington Wizards

The current total number of players with more than 12 years of experience is: 9

PL/SQL procedure successfully completed.

USER_NAME DATE_TIME NUM_RECORDS

---------- ---------- ----------

FINALPROJECT 05-MAY-19 12.49.51.000000000 PM 9

Table OLDPLAYERS dropped.

Table TEST_OP dropped.

Table TEAM2 dropped.

10. Create a package and insert the rookies drafted in the top 14 from that list that aren't in the table (Shai Gilgeous-Alexander, Jerome Robinson, Michael Porter Jr.). Then, show the lottery (top 14) draft picks along with the team that picked them. Also show who had 15+ points per game, 7+ rebounds, 5+ assists, three-point percentage of 35.0+%, and field goal percentage of 50.0%. Also display which rookies were on playoff teams, which ones are under 20 years old, and which ones aren't from the USA. Then close the block calling a function that shows how many rookies a user-inputted team has in the table. – 169 lines.

```
Create or Replace Package draft_lottery AS

Procedure Insert_Rookie (r_id rookies.playerid%type, r_name rookies.rookname%type,

r_team rookies.teamID%type, r_country rookies.country%type, r_position
rookies.position%type,

r_height rookies.height%type, r_jers rookies.jerseynum%type, r_drft rookies.draftnum%type); --
inserting missing rookies

Procedure Insert_Stats(r_id rookiestats.rookid%type, r_name rookiestats.rname%type, r_ppg
rookiestats.ppg%type,

r_rpg rookiestats.rpg%type, r_apg rookiestats.apg%type, r_three rookiestats.threept%type,
r_fgperc rookiestats.fg_perc%type); -- inserting player stats

Function get_team_rookies(t_id teamrecord.tnum%type) return number; -- retrieving a number
of rookies a team has

End draft_lottery;

/

Create or Replace Package Body draft_lottery AS

Procedure Insert_Rookie (r_id rookies.playerid%type, r_name rookies.rookname%type,

r_team rookies.teamID%type, r_country rookies.country%type, r_position
rookies.position%type,

r_height rookies.height%type, r_jers rookies.jerseynum%type, r_drft rookies.draftnum%type) IS

Begin

Insert Into Rookies(playerid, rookname, teamid, country, position, height, jerseynum, draftnum)

Values (r_id, r_name, r_team, r_country, r_position, r_height, r_jers, r_drft);

End Insert_Rookie;
```

```
Procedure Insert_Stats(r_id rookiestats.rookid%type, r_name rookiestats.rname%type, r_ppg
rookiestats.ppg%type,

r_rpg rookiestats.rpg%type, r_apg rookiestats.apg%type, r_three rookiestats.threept%type,
r_fgperc rookiestats.fg_perc%type) IS

Begin

Insert Into RookieStats(rookid, rname, ppg, rpg, apg, threept, fg_perc)

Values(r_id, r_name, r_ppg, r_rpg, r_apg, r_three, r_fgperc);

End Insert_Stats;

function get_team_rookies(t_id teamrecord.tnum%type) return number

IS p_o number;

Begin

select count(playerid) into p_o

from rookies, teamrecord

where tNum = t_id

and teamid = tNum;

return p_o;

end get_team_rookies;

End;

/

set serveroutput on;

Declare

ex_rooknum_pk EXCEPTION;

PRAGMA Exception_INIT(ex_rooknum_pk,-00001); -- duplicate value for insert id

Cursor Lottery_Order is -- display the lottery order with information

select RookName, City, Name, DraftNum

from Rookies, Team

where Rookies.TeamID = Team.TeamID

and DraftNum <= 14
```

```
Order by DraftNum;
Cursor Points Is -- getting rookies averaging =>15 PPG
select RName, PPG
from RookieStats
where PPG >= 15
Order by PPG DESC;
Cursor Rebounds Is -- getting rookies averaging =>7 RPG
select RName, RPG
from RookieStats
where RPG >= 7
ORDER BY RPG DESC;
Cursor Assists Is -- getting rookies averaging =>5 APG
select RName, APG
from RookieStats
where APG >= 5
ORDER BY APG DESC;
Cursor Threes Is -- getting rookies shooting =>35% from 3
select RName, ThreePT
from RookieStats
where ThreePt >= 35
ORDER BY THREEPT DESC;
Cursor FG Is -- getting rookies shooting =>50 overall
select RName, FG_PERC
from RookieStats
where FG_PERC >= 50.0
Order by FG_PERC DESC;
Cursor Playoffs is -- getting rookies in the playoffs
```

```
select RookName, Team
from Rookies, TeamRecord
where TeamID = tNum
and Playoffs = 'Yes';
Cursor Teenagers Is -- getting teenagers in the NBA
select RName
from RookieStats
where Age < 20;
Cursor OutUS is -- getting rookies not from USA
select RookName, Country
from Rookies
where Country <> 'USA';
t_teamid teamrecord.tnum%type;
t_count number;
t_name team.name%type;
t_city team.city%type;
Begin
draft_lottery.Insert_Rookie('555','Shai Gilgeous-Alexander',2,'Canada',1,78,2,11);
draft_lottery.Insert_Rookie('444','Jerome Robinson',2,'USA',2,77,10,13);
draft_lottery.Insert_Rookie('702','Michael Porter Jr.',12,'USA',3,82,1,14);
draft_lottery.Insert_Stats('555','Shai Gilgeous-Alexander',10.8,2.8,3.3,36.7,47.6);
draft_lottery.Insert_Stats('444','Jerome Robinson',3.4,1.2,0.6,31.6,40.0);
draft_lottery.Insert_Stats('702','Michael Porter Jr.',0,0,0,0,0);
dbms_output.put_line('Missing lottery players have been inserted');
dbms_output.put_line('');
dbms_output.put_line('The 2018 NBA Draft Lottery Results.');
For rec_lotto IN Lottery_order
```

```
Loop
DBMS_OUTPUT.PUT_LINE(rec_lotto.draftnum || ': ' || rec_lotto.rookname);
DBMS_OUTPUT.PUT_LINE(rec_lotto.city || ' ' || rec_lotto.name);
DBMS_OUTPUT.PUT_LINE('');
End Loop;
dbms_output.put_line('');
dbms_output.put_line('Rookies Averaging 15 or more Points');
For rec_ppg IN Points
Loop
DBMS_OUTPUT.PUT_LINE(rec_ppg.rname || ': ' || rec_ppg.ppg);
DBMS_OUTPUT.PUT_LINE('');
End Loop;
dbms_output.put_line('');
dbms_output.put_line('Rookies Averaging 7 or more Rebounds');
For rec_rpg IN Rebounds
Loop
DBMS_OUTPUT.PUT_LINE(rec_rpg.rname || ': ' || rec_rpg.rpg);
DBMS_OUTPUT.PUT_LINE('');
End Loop;
dbms_output.put_line('');
dbms_output.put_line('Rookies Averaging 5 or more Assists');
For rec_apg IN Assists
Loop
DBMS_OUTPUT.PUT_LINE(rec_apg.rname || ': ' || rec_apg.apg);
DBMS_OUTPUT.PUT_LINE('');
End Loop;
dbms_output.put_line('');
```

```
dbms_output.put_line('Rookies Shooting 35 or better from 3');
For rec_three IN Threes
Loop
DBMS_OUTPUT.PUT_LINE(rec_three.rname || ': ' || rec_three.threept);
DBMS_OUTPUT.PUT_LINE('');
End Loop;
dbms_output.put_line('');
dbms_output.put_line('Rookies Shooting 50 or better from FG');
For rec_fg IN FG
Loop
DBMS_OUTPUT.PUT_LINE(rec_fg.rname || ': ' || rec_fg.fg_perc);
DBMS_OUTPUT.PUT_LINE('');
End Loop;
dbms_output.put_line('');
dbms_output.put_line('Rookies on Playoff Teams');
For rec_po IN Playoffs
Loop
DBMS_OUTPUT.PUT_LINE(rec_po.rookname || ': ' || rec_po.team);
DBMS_OUTPUT.PUT_LINE('');
End Loop;
dbms_output.put_line('');
dbms_output.put_line('Rookies Under 20 Years Old');
For rec_teen IN Teenagers
Loop
DBMS_OUTPUT.PUT_LINE(rec_teen.rname);
DBMS_OUTPUT.PUT_LINE('');
End Loop;
```

```
dbms_output.put_line('');
dbms_output.put_line('Rookies Not From The US 50');
For rec_non_usa IN OutUS
Loop
DBMS_OUTPUT.PUT_LINE(rec_non_usa.rookname || ': ' || rec_non_usa.country);
DBMS_OUTPUT.PUT_LINE('');
End Loop;
dbms_output.put_line('');
t_teamid := '&Insert_Team_Number';
t_count := draft_lottery.get_team_rookies(t_teamid);
select city, name into t_city, t_name
from team
where TeamID = t_teamid;
DBMS_OUTPUT.PUT_LINE('The ' || t_city || ' ' || t_name || ' has ' || t_count || ' rookies.');
DBMS_OUTPUT.PUT_LINE('');
Exception WHEN ex_rooknum_pk THEN
DBMS_OUTPUT.PUT_LINE('ID is already used. Use another one.');
End;
```

Input:

8 [enter]

Output:

Missing lottery players have been inserted

The 2018 NBA Draft Lottery Results.

1: Deandre Ayton

Phoenix Suns

2: Marvin Bagley

Sacramento Kings

3: Luka Doncic

Dallas Mavericks

4: Jaren Jackson

Memphis Grizzlies

5: Trae Young

Atlanta Hawks

6: Mo Bamba

Orlando Magic

7: Wendell Carter

Chicago Bulls

8: Collin Sexton

Cleveland Cavaliers

9: Kevin Knox

New York Knicks

10: Mikal Bridges

Phoenix Suns

11: Shai Gilgeous-Alexander

Los Angeles Clippers

12: Miles Bridges

Charlotte Hornets

13: Jerome Robinson

Los Angeles Clippers

14: Michael Porter Jr.

Denver Nuggets

Rookies Averaging 15 or more Points

Luka Doncic: 21

Trae Young: 18.7

Deandre Ayton: 16.5

Collin Sexton: 16.2

Rookies Averaging 7 or more Rebounds

Deandre Ayton: 10.3

Luka Doncic: 7.6

Marvin Bagley: 7.3

Wendell Carter: 7

Rookies Averaging 5 or more Assists

Trae Young: 7.9

Luka Doncic: 5.8

Rookies Shooting 35 or better from 3

Collin Sexton: 41.9

Landry Shamet: 41.9

Kevin Huerter: 38.1

Shai Gilgeous-Alexander: 36.7

Jaren Jackson: 35.9

Jalen Brunson: 35.1

Rookies Shooting 50 or better from FG

Robert Williams: 74.4

Deandre Ayton: 58.6

Marvin Bagley: 51.9

Jaren Jackson: 50.6

Rookies on Playoff Teams

Donte DiVincenzo: Bucks

Robert Williams: Celtics

Landry Shamet: Clippers

Grayson Allen: Jazz

Shai Gilgeous-Alexander: Clippers

Jerome Robinson: Clippers

Michael Porter Jr.: Nuggets

Rookies Under 20 Years Old

Jaren Jackson

Marvin Bagley

Kevin Knox

Rookies Not From The US 50

Luka Doncic: Slovenia

Deandre Ayton: Bahamas

Shai Gilgeous-Alexander: Canada

The Cleveland Cavaliers has 1 rookies.

PL/SQL procedure successfully completed.

11. Create 2 new tables, coach2 and test_update_coach2_log, then use a trigger to update the new coaches for the Memphis Grizzlies (Jarron Collins), Los Angeles Lakers (Ty Lue), Sacramento Kings (Luke Walton), Phoenix Suns (Monty Williams), and Cleveland Cavaliers (JB Bickerstaff). Then, use a series of functions to get a user-inputted coach's name, years in the NBA, team, and his general manager name. Drop the new tables once it's done. – 122 lines.

Create table coach2 as select * from coach; -- creating duplicate coach table

Select * from coach2;

```
Create table test_update_coach2_log -- used to show trigger updates
(
user_name  varchar2(20),
date_time  timestamp(6),
coach_old  char(30),
coach_new  char(30)
);
Select * from test_update_coach2_log;
 CREATE OR REPLACE TRIGGER test_update_coach2 -- trigger for TUCL table
  AFTER UPDATE ON coach2
  FOR EACH ROW
 BEGIN
   INSERT INTO test_update_coach2_log
    VALUES(USER, SYSDATE, :OLD.coachname, :NEW.coachname);
 END;
/
-- Run these commands
update coach2 set coachname = 'Jarron Collins' where tnumber = 5;
update coach2 set coachname = 'Ty Lue' where tnumber = 10;
update coach2 set coachname = 'Monty Williams' where tnumber = 25;
update coach2 set coachname = 'Luke Walton' where tnumber = 26;
update coach2 set coachname = 'JB Bickerstaff' where tnumber = 8;
select * from test_update_coach2_log;
/
-- functions to retrieve a coach's information after user inputs it
create or replace function find_coach (coach_num coach2.tnumber%type)
return coach.coachname%type
```

```
IS
c_name coach.coachname%type;
Begin
select coachname into c_name
from coach
where tnumber = coach_num;
return c_name;
end find_coach;
/
create or replace function find_team (t_number coach2.tnumber%type)
return team.name%type
IS
t_name team.name%type;
begin
select name into t_name
from team
where t_number = teamid;
return t_name;
end find_team;
/
create or replace function find_experience (t_number coach2.tnumber%type)
return coach.experience%type
is
c_ex coach.experience%type;
begin
select experience into c_ex
from coach
```

```
where tnumber = t_number;
return c_ex;
end find_experience;
/
create or replace function find_city (t_number coach2.tnumber%type)
return team.city%type
is
c_city team.city%type;
begin
select city into c_city
from team
where teamid = t_number;
return c_city;
end find_city;
/
create or replace function find_gmfirst (t_number coach.tnumber%type)
return generalmanager.gmfirst%type
IS
gm_first generalmanager.gmfirst%type;
begin
select gmfirst into gm_first
from generalmanager
where teamnum = t_number;
return gm_first;
end find_gmfirst;
/
create or replace function find_gmlast (t_number coach2.tnumber%type)
```

```
return generalmanager.gmlast%type
IS
gm_last generalmanager.gmlast%type;
begin
select gmlast into gm_last
from generalmanager
where teamnum = t_number;
return gm_last;
end find_gmlast;
/
set serveroutput on
declare
validTeam_fk EXCEPTION;
PRAGMA Exception_Init(validTeam_fk,+0100); -- exception for invalid team id
c_id coach2.tnumber%type;
c_name coach2.coachname%type;
gm_first generalmanager.gmfirst%type;
gm_last generalmanager.gmlast%type;
c_ex coach2.experience%type;
c_tm team.name%type;
c_city team.city%type;
Begin
c_id := '&coach_id';
c_name := find_coach(c_id);
c_ex := find_experience(c_id);
gm_first := find_gmfirst(c_id);
gm_last := find_gmlast(c_id);
```

```
c_tm := find_team(c_id);
c_city := find_city(c_id);
dbms_output.put_line('Coach Name: ' || c_name);
dbms_output.put_line('Years in the League: ' || c_ex);
dbms_output.put_line('Team: ' || c_city || ' ' || c_tm);
dbms_output.put_line('General Manager: ' || gm_first || ' ' || gm_last);
EXCEPTION when validTeam_FK THEN
dbms_output.put_line('Invalid Coach. Try Again.');
end;
/
drop table test_update_coach2_log; -- drop tables
drop table coach2;
```

Input:

12 [enter]

[Output]

Table COACH2 created.

CSSN	COACHNAME	TNUMBER	EXPERIENCE	SALARY
567890123	Luke Walton	10	2	5000000
901234567	Brett Brown	22	6	4500000
111111111	Terry Stotts	30	7	4000000
678901234	Mike DAntoni	11	13	7500000
345678901	JB Bickerstaff	5	2	2500000
467890123	Kenny Atkinson	7	2	3000000

123456789 Quin Snyder 1 4 3000000

890123456 Brad Stevens 17 5 6000000

789012345 Steve Clifford 13 7 4500000

234567890 Doc Rivers 2 15 7500000

222222222 Lloyd Pierce 3 1 3000000

CSSN COACHNAME TNUMBER EXPERIENCE SALARY

--- --- --- --- ---

333333333 James Borrego 4 1 3000000

444444444 Jim Boylan 6 1 3000000

555555555 Larry Drew 8 1 1500000

676767676 Rick Carlisle 9 17 5500000

777777777 Mike Malone 12 5 4500000

888888888 Dwane Casey 14 10 4500000

999999999 Steve Kerr 15 5 5000000

121212121 Nate McMillan 16 15 3500000

123412340 Erik Spoelstra 18 11 6000000

232323232 Mike Budenholzer 19 6 5000000

343434343 Ryan Saunders 20 1 1500000

CSSN COACHNAME TNUMBER EXPERIENCE SALARY

--- --- --- --- ---

212121212 Alvin Gentry 21 16 4500000

989898989 David Fizdale 23 3 5000000

131313131 Billy Donovan 24 4 4500000

787878787 Igor Kokosov 25 1 3000000

565656565 Dave Joerger 26 6 4000000

999992121 Gregg Popovich 27 23 7500000

920202014 Nick Nurse 28 1 5500000

292929292 Scott Brooks 29 10 4000000

30 rows selected.

Table TEST_UPDATE_COACH2_LOG created.

no rows selected

Trigger TEST_UPDATE_COACH2 compiled

1 row updated.

1 row updated.

1 row updated.

1 row updated.

1 row updated.

USER_NAME	DATE_TIME	COACH_OLD	COACH_NEW
FINALPROJECT	06-MAY-19 07.28.10.000000000 PM	JB Bickerstaff	Jarron Collins
FINALPROJECT	06-MAY-19 07.28.10.000000000 PM	Luke Walton	Ty Lue
FINALPROJECT	06-MAY-19 07.28.10.000000000 PM	Igor Kokosov	Monty Williams
FINALPROJECT	06-MAY-19 07.28.10.000000000 PM	Dave Joerger	Luke Walton
FINALPROJECT	06-MAY-19 07.28.10.000000000 PM	Larry Drew	JB Bickerstaff

Function FIND_COACH compiled

Function FIND_TEAM compiled

Function FIND_EXPERIENCE compiled

Function FIND_CITY compiled

Function FIND_GMFIRST compiled

Function FIND_GMLAST compiled

Output:

Coach Name: Mike Malone

Years in the League: 5

Team: Denver Nuggets

General Manager: Bill Howard

PL/SQL procedure successfully completed.

Table TEST_UPDATE_COACH2_LOG dropped.

Table COACH2 dropped.

12. Create two procedures that retrieve information about Jimmy Butler and his stats. He's also demanding at least $30,000,000 in free agency this summer. Using cursors, get a list of teams that can offer that to him, a list of teams that can use another max spot as well, and then information regarding the cities that he can sign with. – 124 lines

```
Create or Replace Procedure get_player_info -- procedure to retrieve player's info
(p_name in nonrookiestarter.pname%type,
p_name1 out nonrookiestarter.pname%type,
p_city out team.city%type,
p_team out team.name%type,
p_jers out nonrookiestarter.jerseynum%type,
p_dn out nonrookiestarter.draftpicknum%type,
p_pos out nonrookiestarter.position%type,
```

```
p_as out nonrookiestarter.AllStar%type,
p_sal out nonrookiestarter.salary%type,
p_ex out nonrookiestarter.experience%type)
IS
begin
select pname, city, name, jerseynum, draftpicknum, position, allstar, salary, experience
into p_name1, p_city, p_team, p_jers, p_dn, p_pos, p_as, p_sal, p_ex
from nonrookiestarter, team
where TeamID = TeamNumber
and pname = p_name;
end;
/
create or replace procedure player_stats -- procedure to retrieve a player's stats
(
p_name in nonrookiestarter.pname%type,
p_ppg out nonrookiestarterstats.ppg%type,
p_rpg out nonrookiestarterstats.rpg%type,
p_apg out nonrookiestarterstats.apg%type,
p_three out nonrookiestarterstats.threept%type,
p_fg out nonrookiestarterstats.fg_perc%type,
p_age out nonrookiestarterstats.age%type)
IS
Begin
select ppg, rpg, apg, threept, fg_perc, age
into p_ppg, p_rpg, p_apg, p_three, p_fg, p_age
from nonrookiestarterstats
where PName = p_name;
```

```
end player_stats;
/
set serveroutput on
declare
cursor cap is -- teams with a max spot
select City, Name, NumOfMaxSpots, Cap_Room
from TeamMoney, Team
where tNum = TeamID
and cap_room > 30000000
order by cap_room desc;
cursor more_max is -- teams with 2 or more max spots
select City, Name, Cap_Room
from TeamMoney, Team
where tNum = TeamID
and cap_room > 30000000
and numofmaxspots >= 2
order by cap_room desc;
cursor city_cap is -- information about cities that can sign Butler
select TeamCity, CityState, Population, ProSportsNum, Region
from City, State, TeamMoney, Team
where TeamID = tNum
and CityNumber = CitNum
and CityState = StateInitial
and cap_room > 30000000
order by cap_room desc;
p_name nonrookiestarter.pname%type;
p_name1 nonrookiestarter.pname%type;
```

```
p_city team.city%type;
p_team team.name%type;
p_jers nonrookiestarter.jerseynum%type;
p_dn nonrookiestarter.draftpicknum%type;
p_pos nonrookiestarter.position%type;
p_as nonrookiestarter.AllStar%type;
p_sal nonrookiestarter.salary%type;
p_ex nonrookiestarter.experience%type;
p_ppg nonrookiestarterstats.ppg%type;
p_rpg nonrookiestarterstats.rpg%type;
p_apg nonrookiestarterstats.apg%type;
p_three nonrookiestarterstats.threept%type;
p_fg nonrookiestarterstats.fg_perc%type;
p_age nonrookiestarterstats.age%type;
Begin
p_name := 'Jimmy Butler';
get_player_info(p_name, p_name1, p_city, p_team, p_jers, p_dn, p_pos, p_as, p_sal, p_ex);
player_stats(p_name, p_ppg, p_rpg, p_apg, p_three, p_fg, p_age);
dbms_output.put_line('Player Info');
dbms_output.put_line('');
dbms_output.put_line('Player: ' || p_name1 || ', ' || '#' || p_jers);
dbms_output.put_line('Team: ' || p_city || ' ' || p_team);
dbms_output.put_line('Age: ' || p_age);
dbms_output.put_line('Years in the NBA: ' || p_ex);
dbms_output.put_line('Draft Pick Number: ' || p_dn);
dbms_output.put_line('Annual Salary: ' || to_char(p_sal,'$999,999,999.99'));
dbms_output.put_line('');
```

```
dbms_output.put_line('Stats');

dbms_output.put_line('');

dbms_output.put_line('Points Per Game: ' || p_ppg);

dbms_output.put_line('Rebounds Per Game: ' || p_rpg);

dbms_output.put_line('Assists Per Game: ' || p_apg);

dbms_output.put_line('Three Point Percentage: ' || p_three || '%');

dbms_output.put_line('Field Goal Percentage: ' || p_fg || '%');

dbms_output.put_line('==============================');

dbms_output.put_line('Jimmy Butler is commanding an annual salary of $30,000,000 in free
agency this summer. Heres who can offer him that money.');

for no_cap in cap

loop

dbms_output.put_line('Team: ' || no_cap.city || ' ' || no_cap.name);

dbms_output.put_line('Num of Max Spots: ' || no_cap.numofmaxspots);

dbms_output.put_line('Cap Room: ' || to_char(no_cap.cap_room,'$99,999,999.99'));

dbms_output.put_line('');

end loop;

dbms_output.put_line('==============================');

dbms_output.put_line('These teams can pair Jimmy Butler with another max spot free agent
this summer.');

for a_max in more_max

loop

dbms_output.put_line('Team: ' || a_max.city || ' ' || a_max.name);

dbms_output.put_line('Cap Room: ' || to_char(a_max.cap_room,'$99,999,999.99'));

dbms_output.put_line('');

end loop;

dbms_output.put_line('==============================');
```

```
dbms_output.put_line('Here is some information regarding the cities of the teams that can pair Jimmy Butler with another max spot free agent this summer.');

for a_city in city_cap

loop

dbms_output.put_line('City: ' || a_city.teamcity || ', ' || a_city.citystate);

dbms_output.put_line('Population: ' || to_char(a_city.population,'99,999,999'));

dbms_output.put_line('Region: ' || a_city.region);

dbms_output.put_line('Number of Pro Sports: ' || a_city.prosportsnum);

dbms_output.put_line('');

end loop;

end;
```

Output:

```
Player Info


Player: Jimmy Butler, #23

Team: Philadelphia 76ers

Age: 29

Years in the NBA: 8

Draft Pick Number: 30

Annual Salary:   $20,445,779.00


Stats


Points Per Game: 18.8

Rebounds Per Game: 5.1

Assists Per Game: 4
```

Three Point Percentage: 34.1%

Field Goal Percentage: 47%

==========

Jimmy Butler is commanding an annual salary of $30,000,000 in free agency this summer. Heres who can offer him that money.

Team: New York Knicks

Num of Max Spots: 2

Cap Room: $72,000,000.00

Team: Los Angeles Clippers

Num of Max Spots: 2

Cap Room: $53,939,871.00

Team: Brooklyn Nets

Num of Max Spots: 1

Cap Room: $48,936,398.00

Team: Sacramento Kings

Num of Max Spots: 1

Cap Room: $45,999,957.00

Team: Indiana Pacers

Num of Max Spots: 1

Cap Room: $44,209,666.00

Team: Philadelphia 76ers

Num of Max Spots: 1

Cap Room: $40,431,049.00

Team: Dallas Mavericks

Num of Max Spots: 1

Cap Room: $40,000,000.00

Team: Chicago Bulls

Num of Max Spots: 1

Cap Room: $39,510,938.00

Team: Atlanta Hawks

Num of Max Spots: 1

Cap Room: $37,513,772.00

Team: Los Angeles Lakers

Num of Max Spots: 1

Cap Room: $36,908,013.00

Team: Utah Jazz

Num of Max Spots: 1

Cap Room: $32,701,579.00

==========

These teams can pair Jimmy Butler with another max spot free agent this summer.

Team: New York Knicks

Cap Room: $72,000,000.00

Team: Los Angeles Clippers

Cap Room: $53,939,871.00

==========

Here is some information regarding the cities of the teams that can pair Jimmy Butler with another max spot free agent this summer.

City: New York City, NY

Population: 8,623,000

Region: Northeast

Number of Pro Sports: 9

City: Los Angeles, CA

Population: 3,976,322

Region: West

Number of Pro Sports: 7

City: Brooklyn, NY

Population: 2,649,000

Region: Northeast

Number of Pro Sports: 1

City: Sacramento, CA

Population: 501,901

Region: West

Number of Pro Sports: 1

City: Indianapolis, IN

Population: 872,680

Region: Northeast

Number of Pro Sports: 2

City: Philadelphia, PA

Population: 1,580,863

Region: Northeast

Number of Pro Sports: 5

City: Dallas, TX

Population: 1,341,000

Region: South

Number of Pro Sports: 4

City: Chicago, IL

Population: 859,035

Region: Northeast

Number of Pro Sports: 5

City: Atlanta, GA

Population: 667,560

Region: Southeast

Number of Pro Sports: 3

City: Los Angeles, CA

Population: 3,976,322

Region: West

Number of Pro Sports: 7

City: Utah, UT

Population: 186,440

Region: West

Number of Pro Sports: 1

PL/SQL procedure successfully completed.