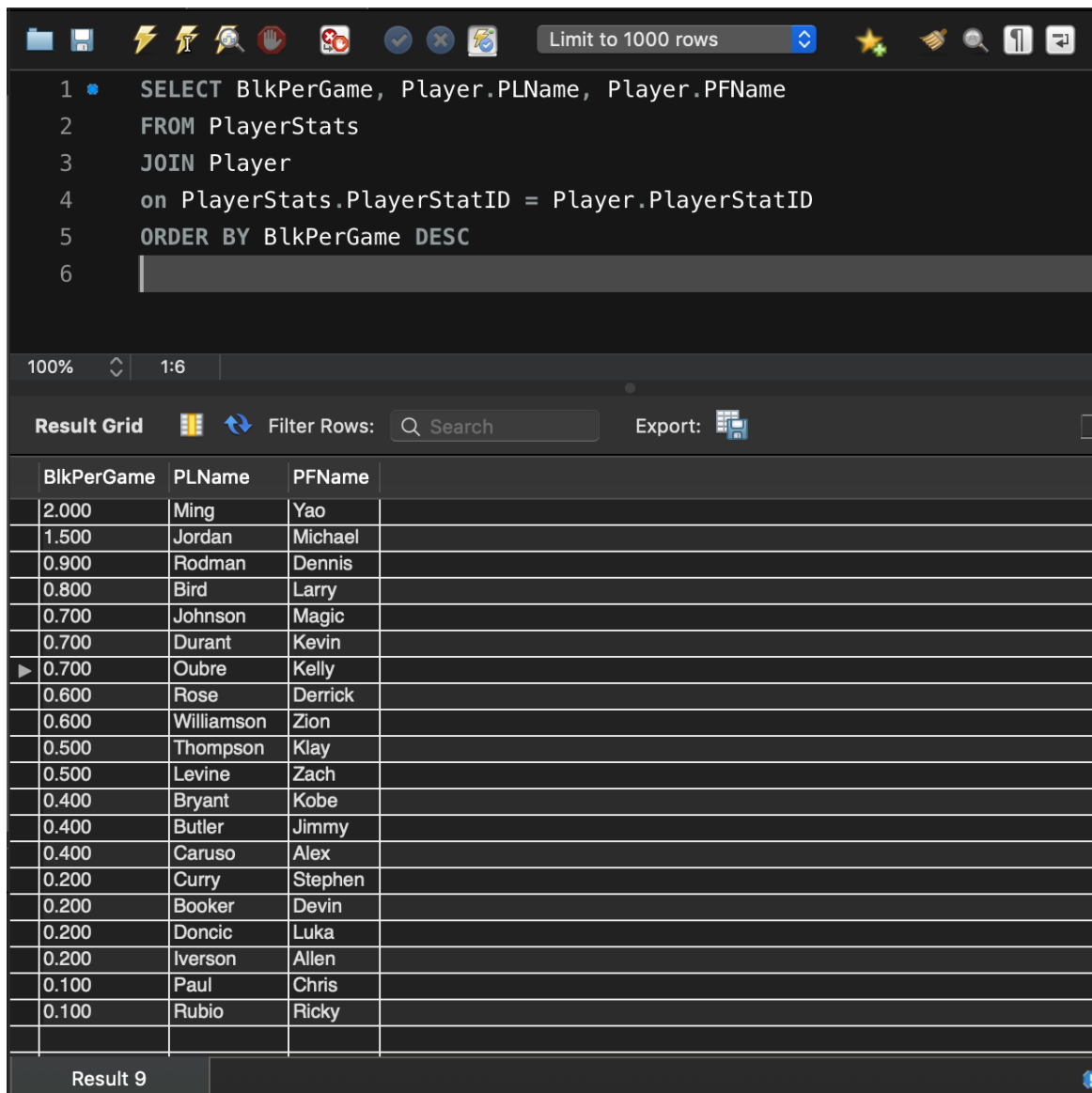Database Project Assignment 6: Queries and Results
Name: Josh Valentino

1. From the players we have data on, who has the highest blocks per game? Please list all the players in order by their blocks. (Complex 1)

   SELECT BlkPerGame, Player.PLName, Player.PFName
   FROM PlayerStats
   JOIN Player
   on PlayerStats.PlayerStatID = Player.PlayerStatID
   ORDER BY BlkPerGame DESC

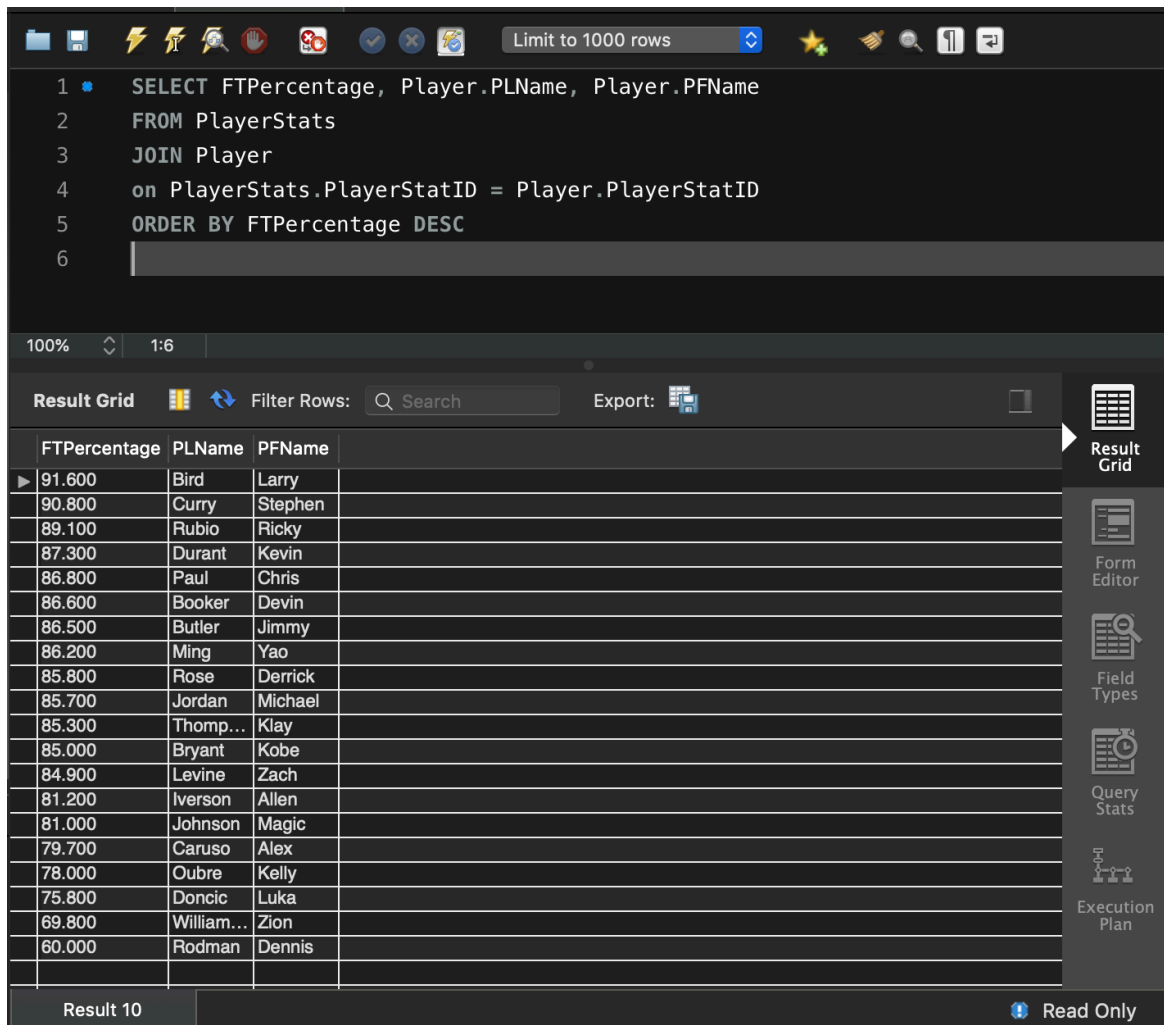| BlkPerGame	PLName	PFName
2.000	Ming	Yao
1.500	Jordan	Michael
0.900	Rodman	Dennis
0.800	Bird	Larry
0.700	Johnson	Magic
0.700	Durant	Kevin
0.700	Oubre	Kelly
0.600	Rose	Derrick
0.600	Williamson	Zion
0.500	Thompson	Klay
0.500	Levine	Zach
0.400	Bryant	Kobe
0.400	Butler	Jimmy
0.400	Caruso	Alex
0.200	Curry	Stephen
0.200	Booker	Devin
0.200	Doncic	Luka
0.200	Iverson	Allen
0.100	Paul	Chris
0.100	Rubio	Ricky

Result 9

2. From the players we have data on, who has the best free throw percentage? Please list all the players in descending order by percentage. (Complex 2)

SELECT FTPercentage, Player.PLName, Player.PFName
FROM PlayerStats
JOIN Player
on PlayerStats.PlayerStatID = Player.PlayerStatID
ORDER BY FTPercentage DESC

```
1   SELECT FTPercentage, Player.PLName, Player.PFName
2   FROM PlayerStats
3   JOIN Player
4   on PlayerStats.PlayerStatID = Player.PlayerStatID
5   ORDER BY FTPercentage DESC
6
```
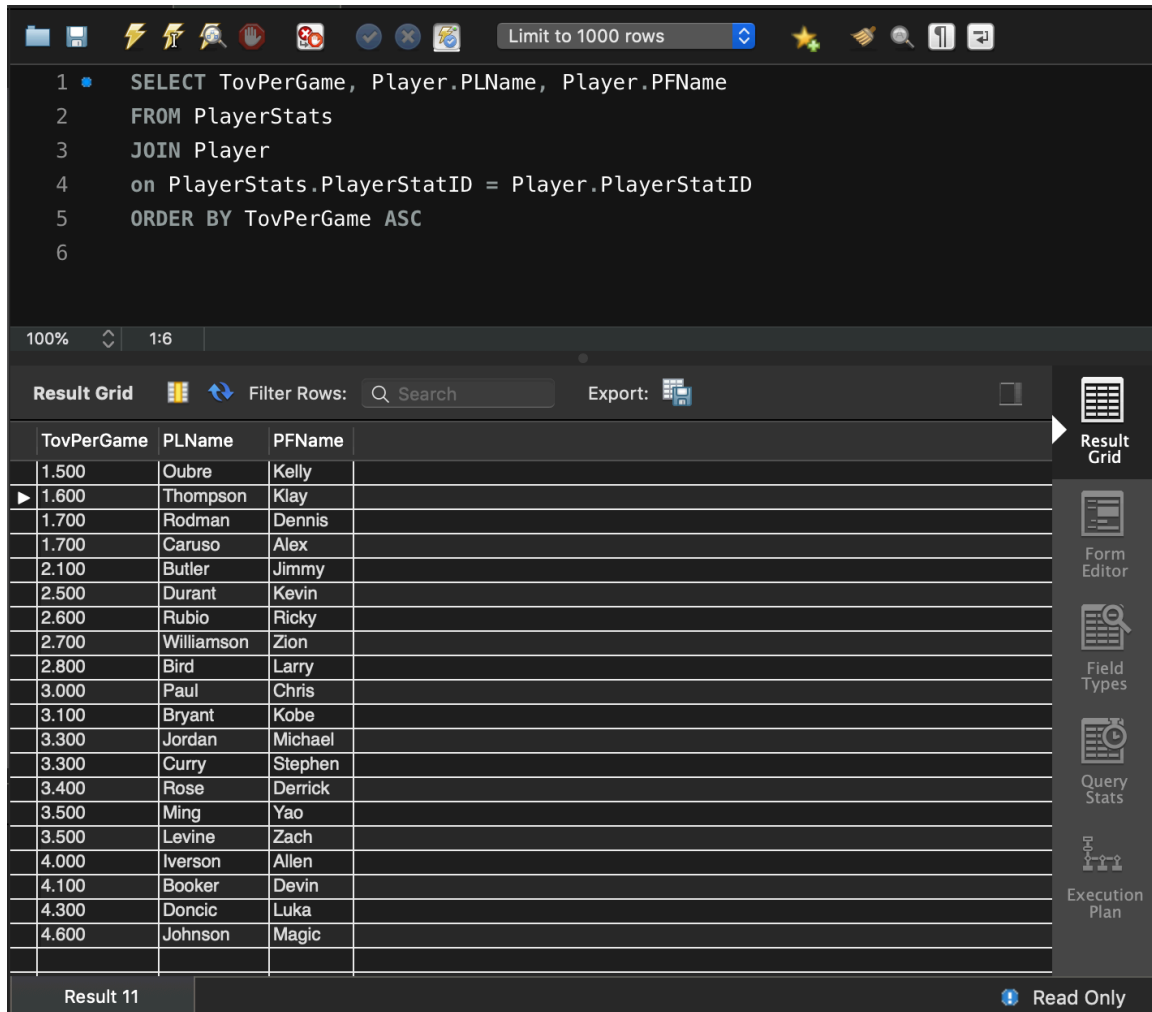
FTPercentage	PLName	PFName
91.600	Bird	Larry
90.800	Curry	Stephen
89.100	Rubio	Ricky
87.300	Durant	Kevin
86.800	Paul	Chris
86.600	Booker	Devin
86.500	Butler	Jimmy
86.200	Ming	Yao
85.800	Rose	Derrick
85.700	Jordan	Michael
85.300	Thomp...	Klay
85.000	Bryant	Kobe
84.900	Levine	Zach
81.200	Iverson	Allen
81.000	Johnson	Magic
79.700	Caruso	Alex
78.000	Oubre	Kelly
75.800	Doncic	Luka
69.800	William...	Zion
60.000	Rodman	Dennis

3. From the players we have data on, who has the lowest turnovers per game? Please list all the players in ascending order by turnovers. (Complex 3)

```
SELECT TovPerGame, Player.PLName, Player.PFName
FROM PlayerStats
JOIN Player
on PlayerStats.PlayerStatID = Player.PlayerStatID
ORDER BY TovPerGame ASC
```

TovPerGame	PLName	PFName
1.500	Oubre	Kelly
1.600	Thompson	Klay
1.700	Rodman	Dennis
1.700	Caruso	Alex
2.100	Butler	Jimmy
2.500	Durant	Kevin
2.600	Rubio	Ricky
2.700	Williamson	Zion
2.800	Bird	Larry
3.000	Paul	Chris
3.100	Bryant	Kobe
3.300	Jordan	Michael
3.300	Curry	Stephen
3.400	Rose	Derrick
3.500	Ming	Yao
3.500	Levine	Zach
4.000	Iverson	Allen
4.100	Booker	Devin
4.300	Doncic	Luka
4.600	Johnson	Magic

Result 11
Read Only

4. From the players we have data on, how many of them are shooting guards?

SELECT COUNT(*) as "Number of SGs"
FROM Player
WHERE PositionID = 2

```
1 •    SELECT COUNT(*) as "Number of SGs"
2      FROM Player
3      WHERE PositionID = 2
4
```

Result Grid   Filter Rows: Q Search   Export:

Number of SGs
6

5. From the players we have data on, how many of them are point guards? Please list all the players names that are point guards. (Complex 4)
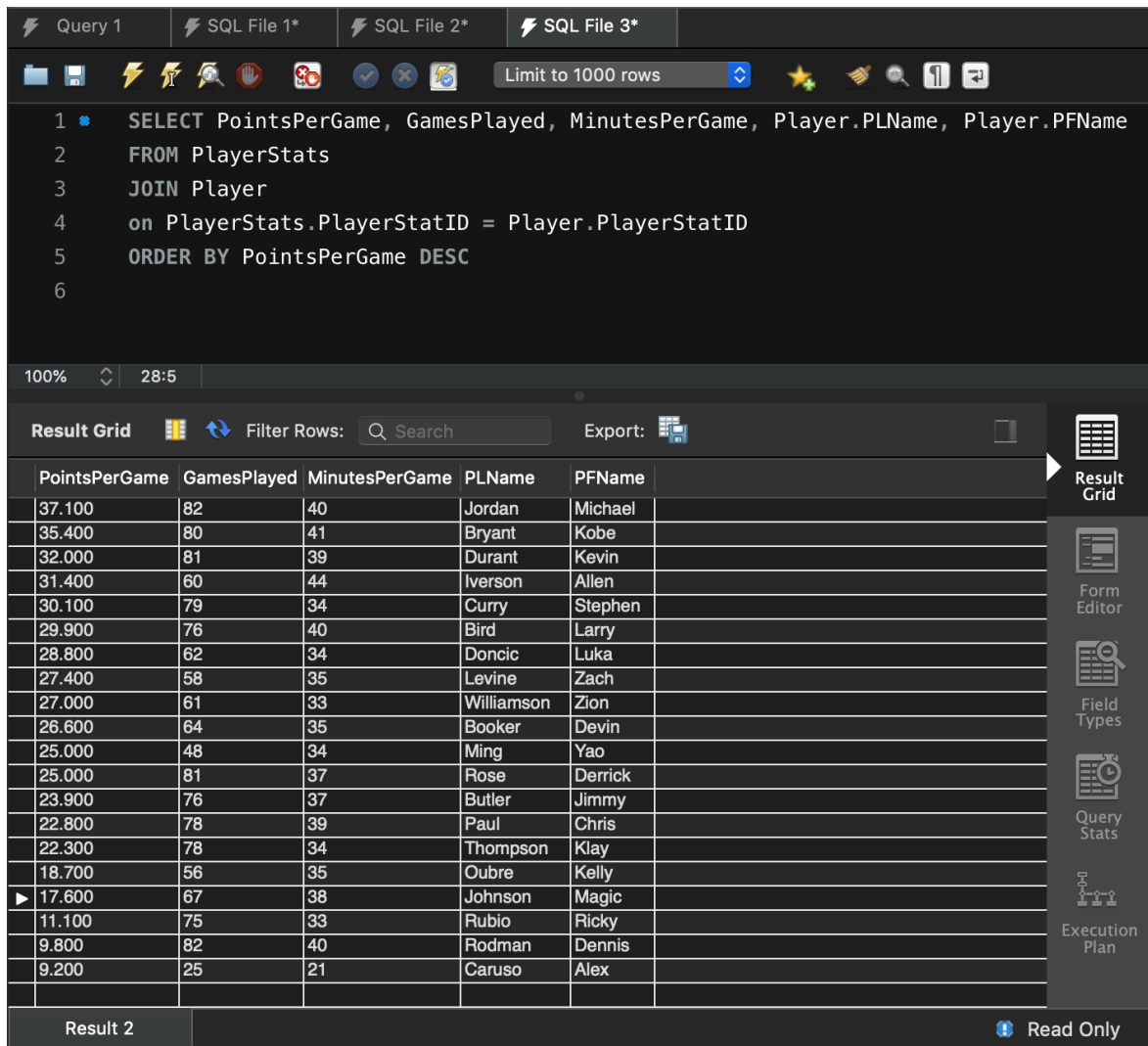
SELECT PositionName, Player.PLName, Player.PFName,
(SELECT COUNT(*) FROM Player WHERE PositionID = 1) as "Number of PGs"
FROM Positions
JOIN Player
on Positions.PositionID = Player.PositionID
WHERE Positions.PositionID = 1;

```
1   SELECT PositionName, Player.PLName, Player.PFName,
2   (SELECT COUNT(*) FROM Player WHERE PositionID = 1) as "Number of PGs"
3   FROM Positions
4   JOIN Player
5   on Positions.PositionID = Player.PositionID
6   WHERE Positions.PositionID = 1;
7
```

PositionName	PLName	PFName	Number of PGs
Point Guard	Johnson	Magic	7
Point Guard	Curry	Stephen	7
Point Guard	Rose	Derrick	7
Point Guard	Paul	Chris	7
Point Guard	Rubio	Ricky	7
Point Guard	Caruso	Alex	7
Point Guard	Iverson	Allen	7

6. From the players we have data on, who has the most points per game? Please list all the players in descending order by points per game. Also list they're games played, and minutes per game to give a better picture of their scoring that season. (Complex 5)

SELECT PointsPerGame, GamesPlayed, MinutesPerGame, Player.PLName, Player.PFName
FROM PlayerStats
JOIN Player
on PlayerStats.PlayerStatID = Player.PlayerStatID
ORDER BY PointsPerGame DESC

| PointsPerGame	GamesPlayed	MinutesPerGame	PLName	PFName
37.100	82	40	Jordan	Michael
35.400	80	41	Bryant	Kobe
32.000	81	39	Durant	Kevin
31.400	60	44	Iverson	Allen
30.100	79	34	Curry	Stephen
29.900	76	40	Bird	Larry
28.800	62	34	Doncic	Luka
27.400	58	35	Levine	Zach
27.000	61	33	Williamson	Zion
26.600	64	35	Booker	Devin
25.000	48	34	Ming	Yao
25.000	81	37	Rose	Derrick
23.900	76	37	Butler	Jimmy
22.800	78	39	Paul	Chris
22.300	78	34	Thompson	Klay
18.700	56	35	Oubre	Kelly
17.600	67	38	Johnson	Magic
11.100	75	33	Rubio	Ricky
9.800	82	40	Rodman	Dennis
9.200	25	21	Caruso	Alex

7. After the previous query, we see that hall of famer Dennis Rodman only had 9.8 points per game that season. Could we see his rebounds per game? (Complex 6)

SELECT TotalReboundsPerGame, Player.PLName, Player.PFName
FROM PlayerStats
JOIN Player
on PlayerStats.PlayerStatID = Player.PlayerStatID
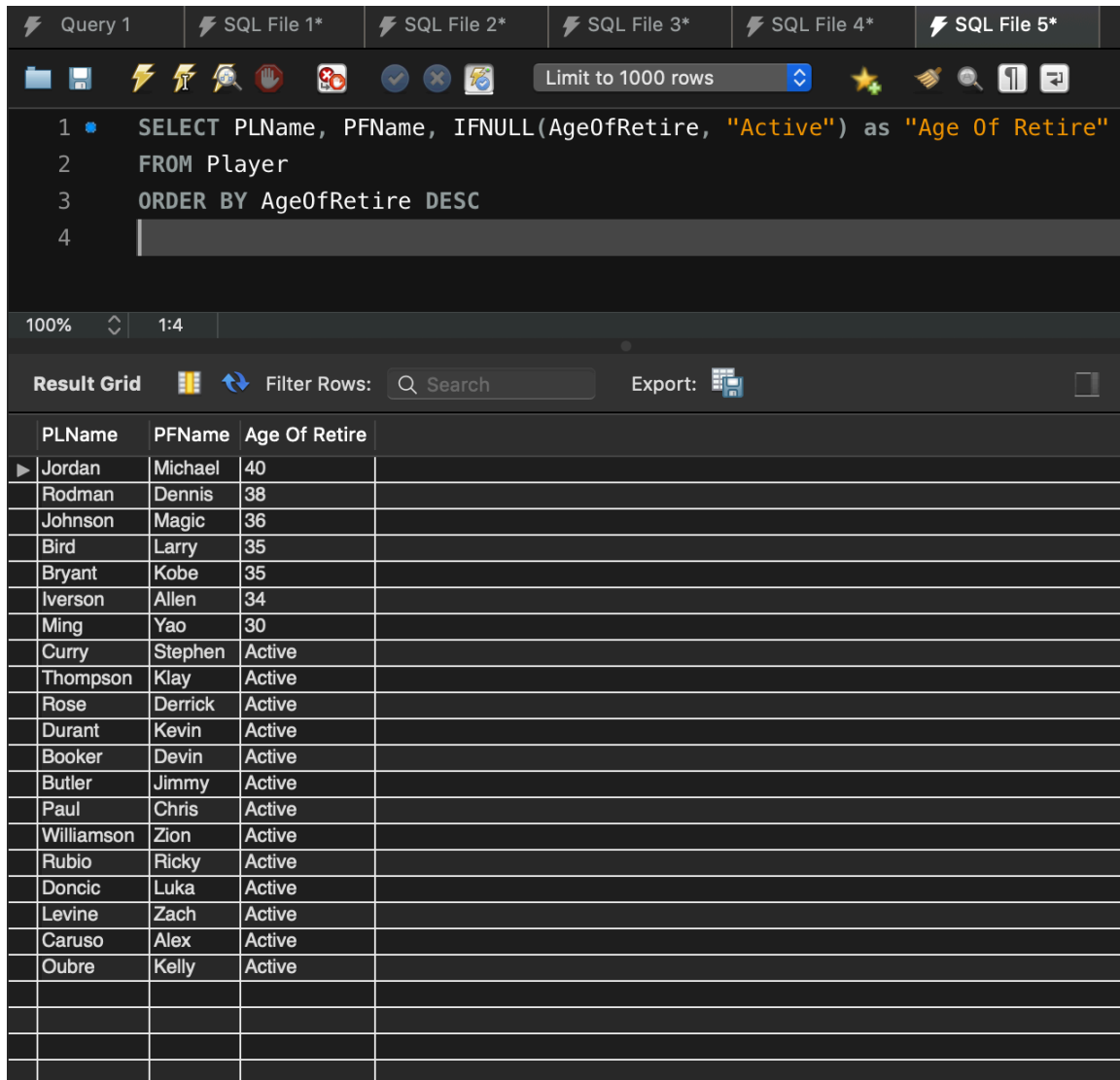WHERE PLNAME = "Rodman" AND PFNAME = "Dennis"

```
1 ●  SELECT  TotalReboundsPerGame, Player.PLName, Player.PFName
2     FROM PlayerStats
3     JOIN Player
4     on PlayerStats.PlayerStatID = Player.PlayerStatID
5     WHERE PLNAME = "Rodman" AND PFNAME = "Dennis"
6
```

100%   1:6

Result Grid   Filter Rows: Q Search   Export:

TotalReboundsPerGame	PLName	PFName
18.700	Rodman	Dennis

8. Looking at Dennis Rodman stats is very interesting. Could we see what team he played for that year and how many wins they had? (Complex 7)

SELECT TeamName, GamesWon, Player.PLName, Player.PFName
FROM Team
JOIN Player
on Team.TeamID = Player.TeamID
JOIN SeasonMetrics
on Team.MetricsID = SeasonMetrics.MetricsID
WHERE PLNAME = "Rodman" AND PFNAME = "Dennis"

```
1 •   SELECT  TeamName, GamesWon, Player.PLName, Player.PFName
2     FROM Team
3     JOIN Player
4     on Team.TeamID = Player.TeamID
5     JOIN SeasonMetrics
6     on Team.MetricsID = SeasonMetrics.MetricsID
7     WHERE PLNAME = "Rodman" AND PFNAME = "Dennis"
8
```

TeamName	GamesWon	PLName	PFName
Pistons	48	Rodman	Dennis
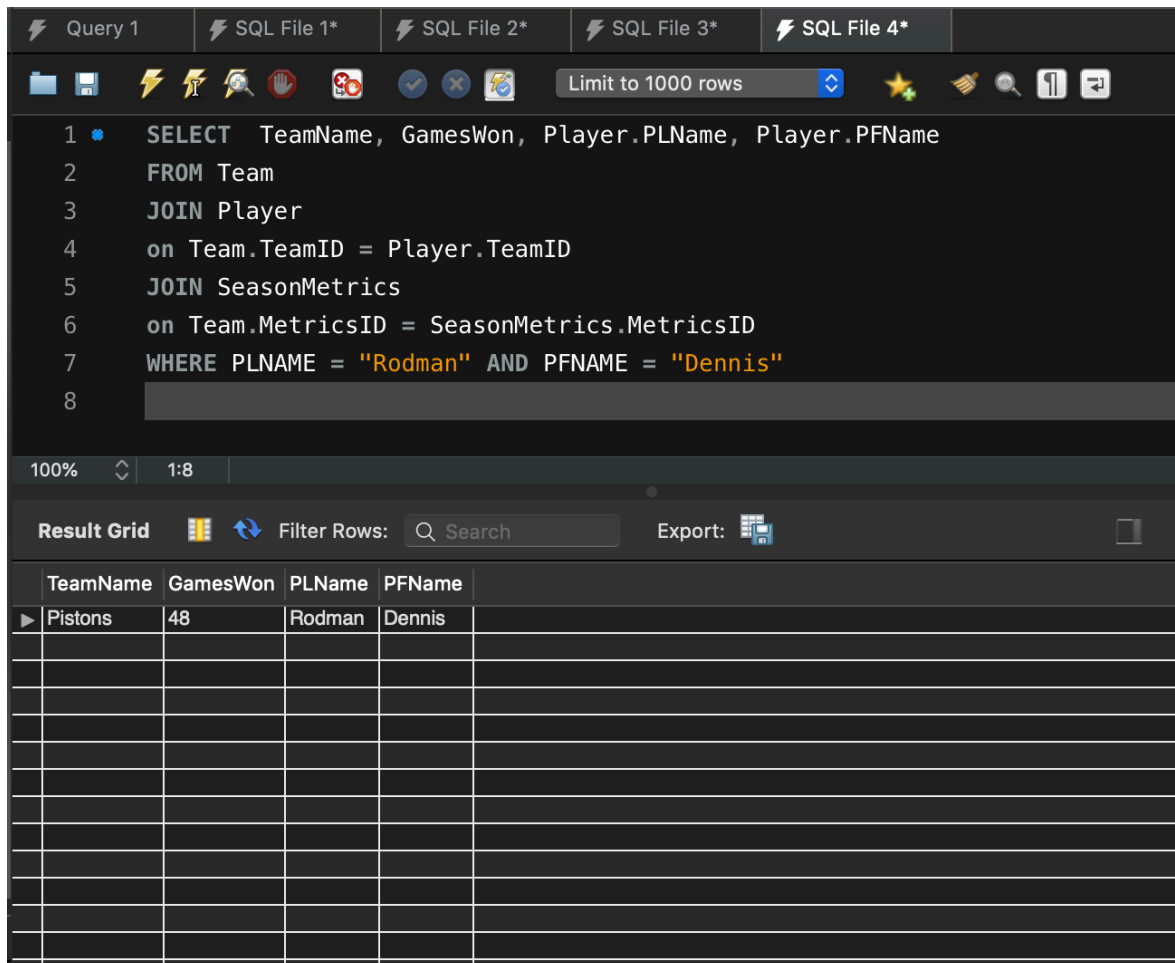
9. What age did the players we have data on retire? (Complex 8)

SELECT PLName, PFName, IFNULL(AgeOfRetire, "Active") as "Age Of Retire"
FROM Player
ORDER BY AgeOfRetire DESC
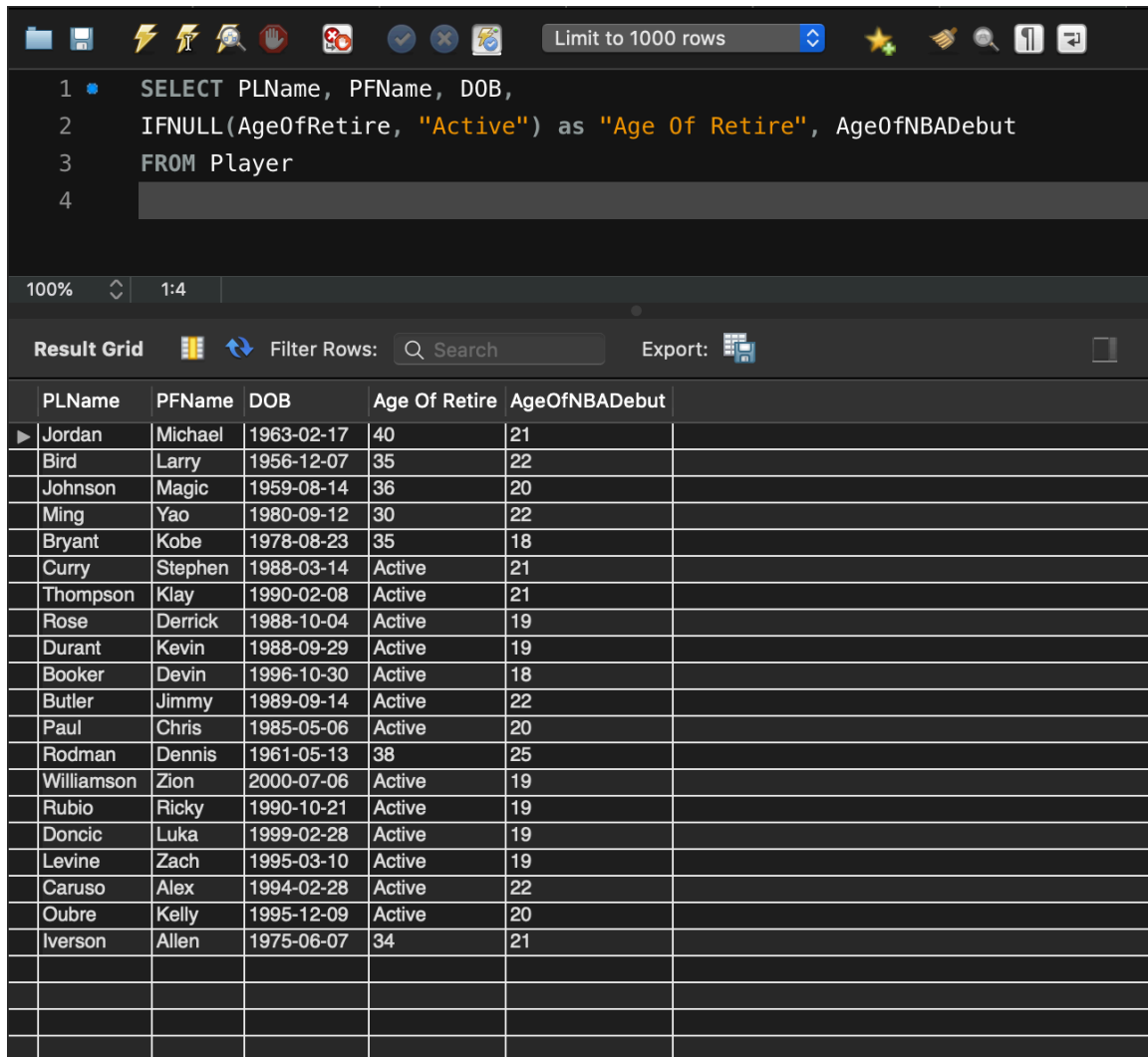
| | Query 1 | SQL File 1* | SQL File 2* | SQL File 3* | SQL File 4* | SQL File 5* |

```
1 •   SELECT PLName, PFName, IFNULL(AgeOfRetire, "Active") as "Age Of Retire"
2     FROM Player
3     ORDER BY AgeOfRetire DESC
4
```

100%   1:4

Result Grid   Filter Rows: Q Search   Export:

PLName	PFName	Age Of Retire
Jordan	Michael	40
Rodman	Dennis	38
Johnson	Magic	36
Bird	Larry	35
Bryant	Kobe	35
Iverson	Allen	34
Ming	Yao	30
Curry	Stephen	Active
Thompson	Klay	Active
Rose	Derrick	Active
Durant	Kevin	Active
Booker	Devin	Active
Butler	Jimmy	Active
Paul	Chris	Active
Williamson	Zion	Active
Rubio	Ricky	Active
Doncic	Luka	Active
Levine	Zach	Active
Caruso	Alex	Active
Oubre	Kelly	Active

10. Show us all the data we have on birthdays, age of retire, and age of debut.

SELECT PLName, PFName, DOB,
IFNULL(AgeOfRetire, "Active") as "Age Of Retire", AgeOfNBADebut
FROM Player
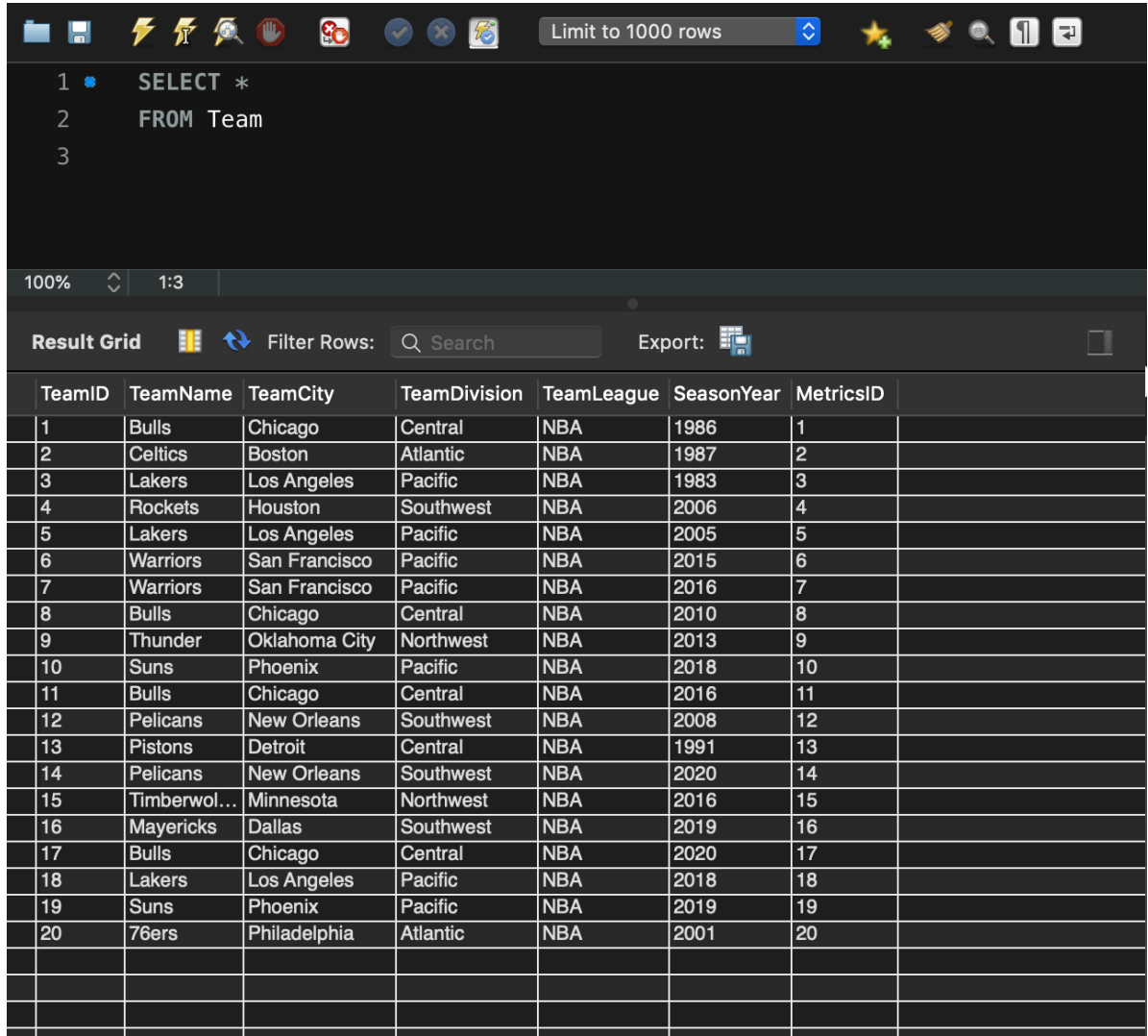
```
1 •    SELECT PLName, PFName, DOB,
2      IFNULL(AgeOfRetire, "Active") as "Age Of Retire", AgeOfNBADebut
3      FROM Player
4
```

PLName	PFName	DOB	Age Of Retire	AgeOfNBADebut
Jordan	Michael	1963-02-17	40	21
Bird	Larry	1956-12-07	35	22
Johnson	Magic	1959-08-14	36	20
Ming	Yao	1980-09-12	30	22
Bryant	Kobe	1978-08-23	35	18
Curry	Stephen	1988-03-14	Active	21
Thompson	Klay	1990-02-08	Active	21
Rose	Derrick	1988-10-04	Active	19
Durant	Kevin	1988-09-29	Active	19
Booker	Devin	1996-10-30	Active	18
Butler	Jimmy	1989-09-14	Active	22
Paul	Chris	1985-05-06	Active	20
Rodman	Dennis	1961-05-13	38	25
Williamson	Zion	2000-07-06	Active	19
Rubio	Ricky	1990-10-21	Active	19
Doncic	Luka	1999-02-28	Active	19
Levine	Zach	1995-03-10	Active	19
Caruso	Alex	1994-02-28	Active	22
Oubre	Kelly	1995-12-09	Active	20
Iverson	Allen	1975-06-07	34	21

11. Display all the team data we have.

SELECT *
FROM Team
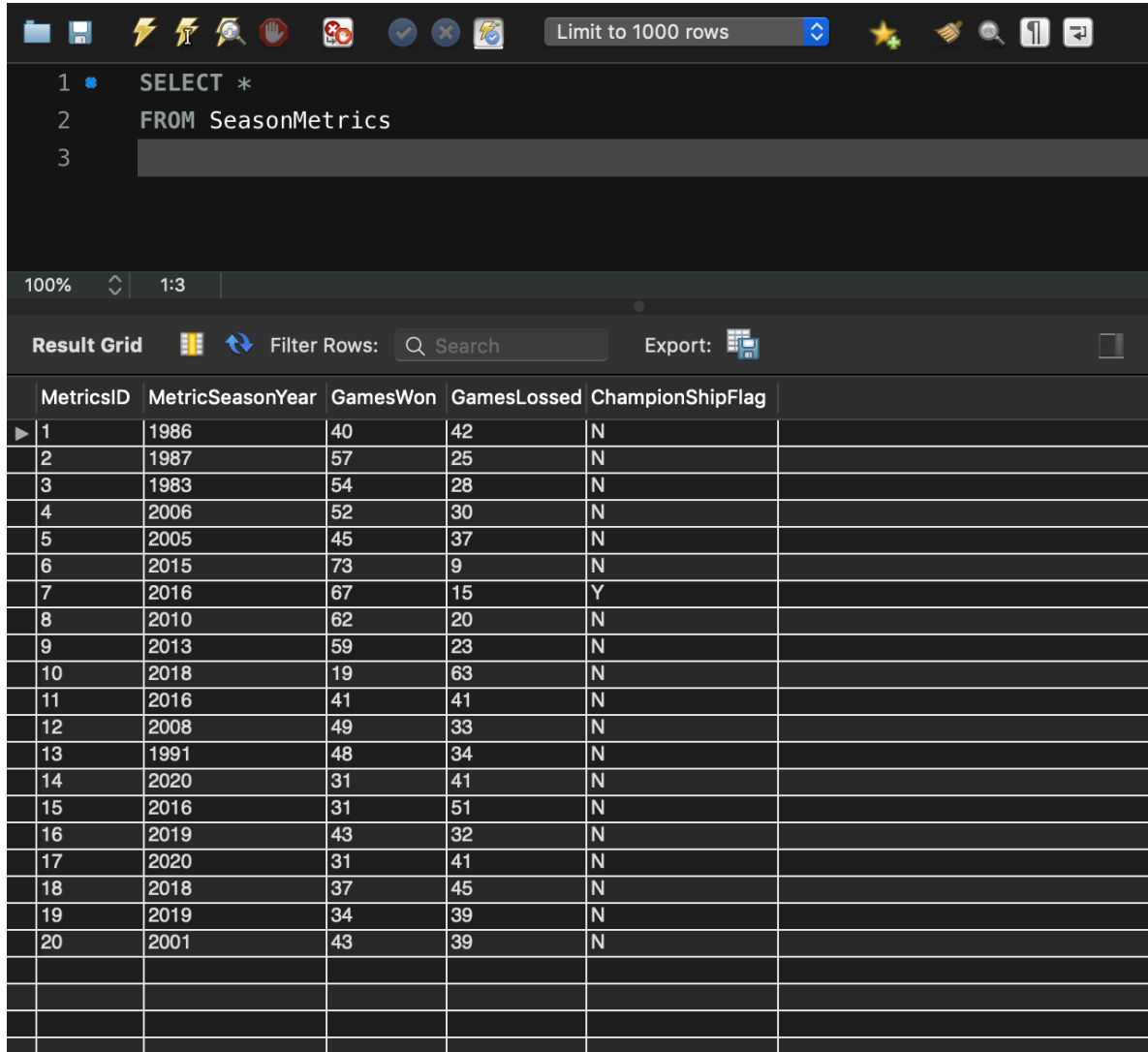
TeamID	TeamName	TeamCity	TeamDivision	TeamLeague	SeasonYear	MetricsID	
1	Bulls	Chicago	Central	NBA	1986	1	
2	Celtics	Boston	Atlantic	NBA	1987	2	
3	Lakers	Los Angeles	Pacific	NBA	1983	3	
4	Rockets	Houston	Southwest	NBA	2006	4	
5	Lakers	Los Angeles	Pacific	NBA	2005	5	
6	Warriors	San Francisco	Pacific	NBA	2015	6	
7	Warriors	San Francisco	Pacific	NBA	2016	7	
8	Bulls	Chicago	Central	NBA	2010	8	
9	Thunder	Oklahoma City	Northwest	NBA	2013	9	
10	Suns	Phoenix	Pacific	NBA	2018	10	
11	Bulls	Chicago	Central	NBA	2016	11	
12	Pelicans	New Orleans	Southwest	NBA	2008	12	
13	Pistons	Detroit	Central	NBA	1991	13	
14	Pelicans	New Orleans	Southwest	NBA	2020	14	
15	Timberwol…	Minnesota	Northwest	NBA	2016	15	
16	Mavericks	Dallas	Southwest	NBA	2019	16	
17	Bulls	Chicago	Central	NBA	2020	17	
18	Lakers	Los Angeles	Pacific	NBA	2018	18	
19	Suns	Phoenix	Pacific	NBA	2019	19	
20	76ers	Philadelphia	Atlantic	NBA	2001	20	

12. Display all the season metric data we have.

SELECT *
FROM SeasonMetrics
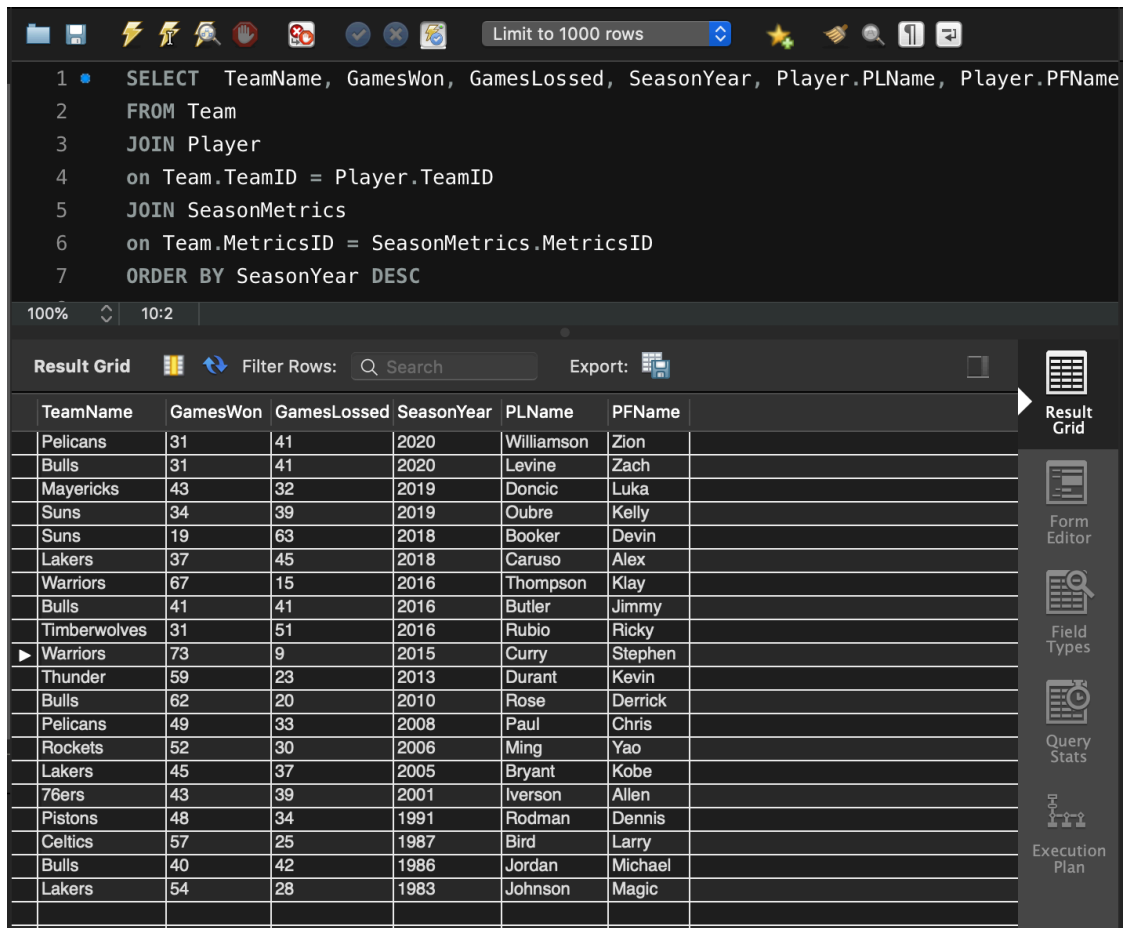
MetricsID	MetricSeasonYear	GamesWon	GamesLossed	ChampionShipFlag
1	1986	40	42	N
2	1987	57	25	N
3	1983	54	28	N
4	2006	52	30	N
5	2005	45	37	N
6	2015	73	9	N
7	2016	67	15	Y
8	2010	62	20	N
9	2013	59	23	N
10	2018	19	63	N
11	2016	41	41	N
12	2008	49	33	N
13	1991	48	34	N
14	2020	31	41	N
15	2016	31	51	N
16	2019	43	32	N
17	2020	31	41	N
18	2018	37	45	N
19	2019	34	39	N
20	2001	43	39	N

13. Show each player, the season year, and the wins and losses of their team. (Complex 9)

SELECT TeamName, GamesWon, GamesLossed, SeasonYear, Player.PLName, Player.PFName
FROM Team
JOIN Player
on Team.TeamID = Player.TeamID
JOIN SeasonMetrics
on Team.MetricsID = SeasonMetrics.MetricsID
ORDER BY SeasonYear DESC

14. Show each player, their minutes per game, and their season year. (Complex 10)

SELECT SeasonYear, PlayerStats.MinutesPerGame, Player.PLName, Player.PFName
FROM Team
JOIN Player
on Team.TeamID = Player.TeamID
JOIN PlayerStats
on Player.PlayerStatID = PlayerStats.PlayerStatID
ORDER BY SeasonYear DESC

SeasonYear	MinutesPerGame	PLName	PFName
2020	33	Williamson	Zion
2020	35	Levine	Zach
2019	34	Doncic	Luka
2019	35	Oubre	Kelly
2018	35	Booker	Devin
2018	21	Caruso	Alex
2016	34	Thompson	Klay
2016	37	Butler	Jimmy
2016	33	Rubio	Ricky
2015	34	Curry	Stephen
2013	39	Durant	Kevin
2010	37	Rose	Derrick
2008	39	Paul	Chris
2006	34	Ming	Yao
2005	41	Bryant	Kobe
2001	44	Iverson	Allen
1991	40	Rodman	Dennis
1987	40	Bird	Larry
1986	40	Jordan	Michael
1983	38	Johnson	Magic
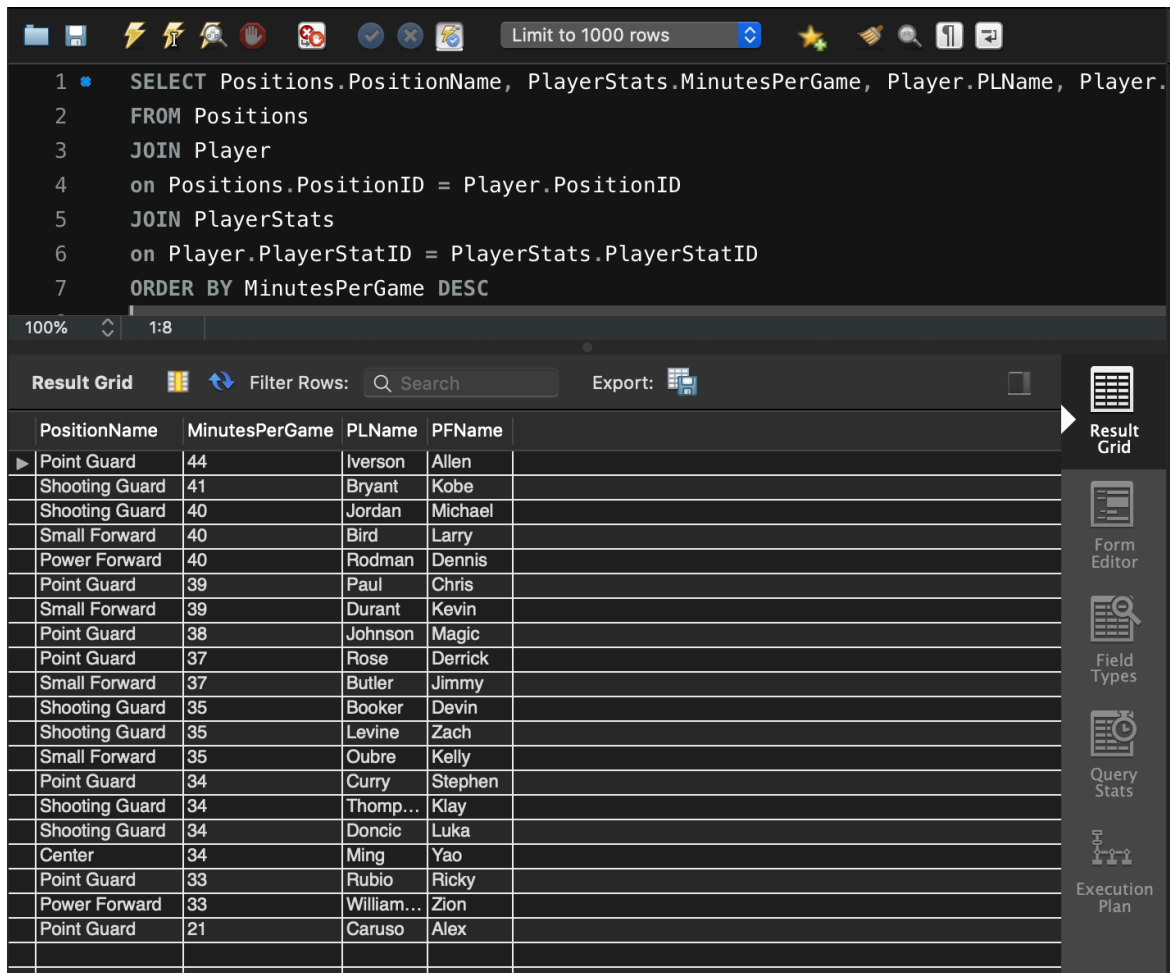
15. Show the list of players that won a championship in the given years from our data. (Complex 11)

    SELECT SeasonMetrics.ChampionShipFlag, Player.PLName, Player.PFName
    FROM Team
    JOIN Player
    on Team.TeamID = Player.TeamID
    JOIN SeasonMetrics
    on Team.MetricsID = SeasonMetrics.MetricsID
    WHERE SeasonMetrics.ChampionShipFlag = "Y"

16. Show all the players, their position name, and their minutes per game. (Complex 12)

```
SELECT Positions.PositionName, PlayerStats.MinutesPerGame, Player.PLName,
Player.PFName
FROM Positions
JOIN Player
on Positions.PositionID = Player.PositionID
JOIN PlayerStats
on Player.PlayerStatID = PlayerStats.PlayerStatID
ORDER BY MinutesPerGame DESC
```

17. Who has the highest points per game out of players in the central division? List all
    players in order by points per game. (Complex 13)

    SELECT PlayerStats.PointsPerGame, Player.PLName, Player.PFName, Team.TeamDivision
    FROM Team
    JOIN Player
    on Team.TeamID = Player.TeamID
    JOIN PlayerStats
    on PlayerStats.PlayerStatID = Player.PlayerStatID
    WHERE Team.TeamDivision = "Central"
    ORDER BY PointsPerGame DESC

```
1 • SELECT PlayerStats.PointsPerGame, Player.PLName, Player.PFName, Team.TeamDivision
2   FROM Team
3   JOIN Player
4   on Team.TeamID = Player.TeamID
5   JOIN PlayerStats
6   on PlayerStats.PlayerStatID = Player.PlayerStatID
7   WHERE Team.TeamDivision = "Central"
8   ORDER BY PointsPerGame DESC
9
```

PointsPerGame	PLName	PFName	TeamDivision
37.100	Jordan	Michael	Central
27.400	Levine	Zach	Central
25.000	Rose	Derrick	Central
23.900	Butler	Jimmy	Central
9.800	Rodman	Dennis	Central

18. Who has the highest three-point attempts out of players in the southwest division? List all players in order by three-point attempts. (Complex 14)

SELECT PlayerStats.ThreePtAttemptPerGame, Player.PLName, Player.PFName, Team.TeamDivision
FROM Team
JOIN Player
on Team.TeamID = Player.TeamID
JOIN PlayerStats
on PlayerStats.PlayerStatID = Player.PlayerStatID
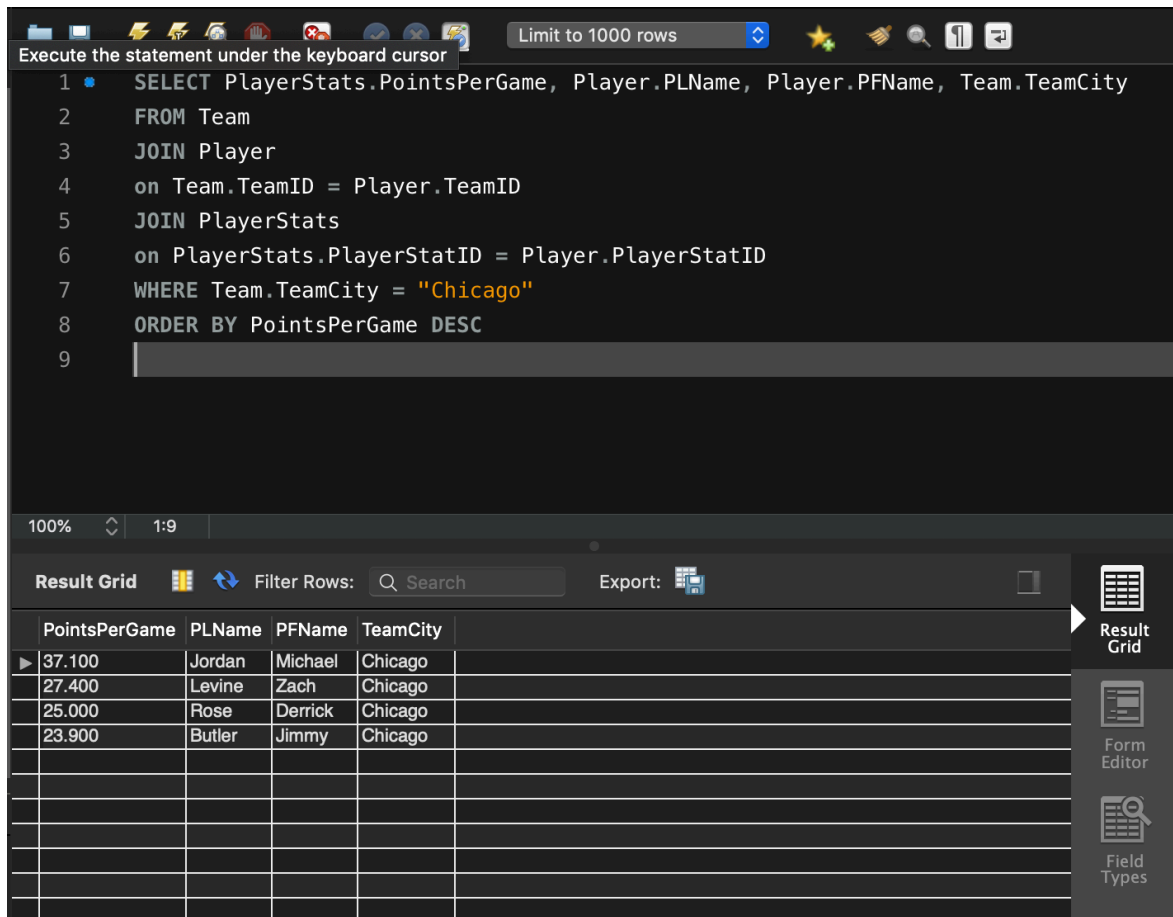WHERE Team.TeamDivision = "Southwest"
ORDER BY ThreePtAttemptPerGame DESC

19. Show the points per game of all players who played in Chicago. (Complex 15)

    SELECT PlayerStats.PointsPerGame, Player.PLName, Player.PFName, Team.TeamCity
    FROM Team
    JOIN Player
    on Team.TeamID = Player.TeamID
    JOIN PlayerStats
    on PlayerStats.PlayerStatID = Player.PlayerStatID
    WHERE Team.TeamCity = "Chicago"
    ORDER BY PointsPerGame DESC
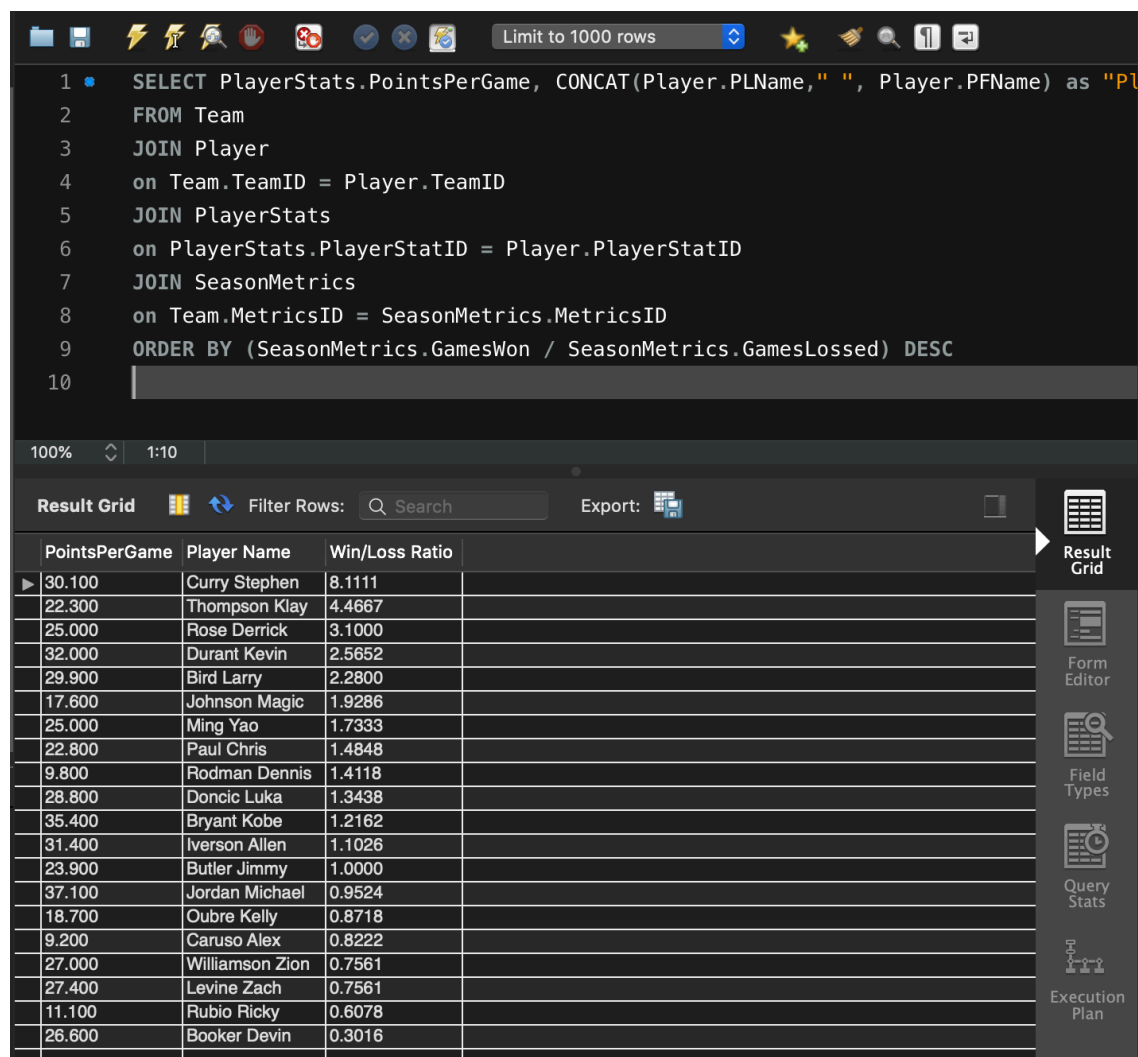
20. Show all player names, in one column, their win/loss ratio, and their points per game. (Complex 16)

    SELECT PlayerStats.PointsPerGame, CONCAT(Player.PLName," ", Player.PFName) as "Player Name", (SeasonMetrics.GamesWon / SeasonMetrics.GamesLossed) as "Win/Loss Ratio"
    FROM Team
    JOIN Player
    on Team.TeamID = Player.TeamID
    JOIN PlayerStats
    on PlayerStats.PlayerStatID = Player.PlayerStatID
    JOIN SeasonMetrics
    on Team.MetricsID = SeasonMetrics.MetricsID
    ORDER BY (SeasonMetrics.GamesWon / SeasonMetrics.GamesLossed) DESC

```
1 •  SELECT PlayerStats.PointsPerGame, CONCAT(Player.PLName," ", Player.PFName) as "Pl
2    FROM Team
3    JOIN Player
4    on Team.TeamID = Player.TeamID
5    JOIN PlayerStats
6    on PlayerStats.PlayerStatID = Player.PlayerStatID
7    JOIN SeasonMetrics
8    on Team.MetricsID = SeasonMetrics.MetricsID
9    ORDER BY (SeasonMetrics.GamesWon / SeasonMetrics.GamesLossed) DESC
10
```

PointsPerGame	Player Name	Win/Loss Ratio
30.100	Curry Stephen	8.1111
22.300	Thompson Klay	4.4667
25.000	Rose Derrick	3.1000
32.000	Durant Kevin	2.5652
29.900	Bird Larry	2.2800
17.600	Johnson Magic	1.9286
25.000	Ming Yao	1.7333
22.800	Paul Chris	1.4848
9.800	Rodman Dennis	1.4118
28.800	Doncic Luka	1.3438
35.400	Bryant Kobe	1.2162
31.400	Iverson Allen	1.1026
23.900	Butler Jimmy	1.0000
37.100	Jordan Michael	0.9524
18.700	Oubre Kelly	0.8718
9.200	Caruso Alex	0.8222
27.000	Williamson Zion	0.7561
27.400	Levine Zach	0.7561
11.100	Rubio Ricky	0.6078
26.600	Booker Devin	0.3016