Hello Jack,

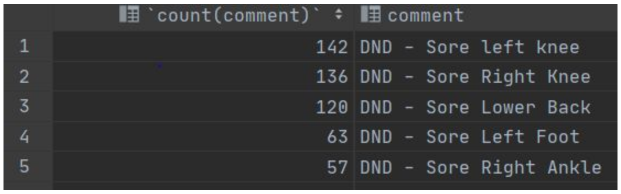
We hope this email finds you well. Thank you for giving us the opportunity to work with the NBA. As per your request and data provided following details were obtained: *(Please note that I have included the queries run for each information along with the information)*

1. The figures on the players who missed a game because of soreness are in the list below along with most recurring types of soreness the players experienced.

   QUERY:

   ```
   select count(comment), comment from player_stats WHERE comment  LIKE "%Sore%" group
   by comment  order by count(comment) desc ;
   ```

   INFORMATION:

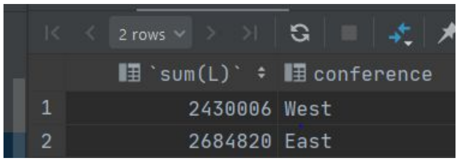
	`count(comment)`	comment
1	142	DND - Sore left knee
2	136	DND - Sore Right Knee
3	120	DND - Sore Lower Back
4	63	DND - Sore Left Foot
5	57	DND - Sore Right Ankle

2. The conference that lost the most games is as follows:

   QUERY:

   ```
   select sum(L), conference from team_performance_stats group by conference;
   ```

   INFORMATION:

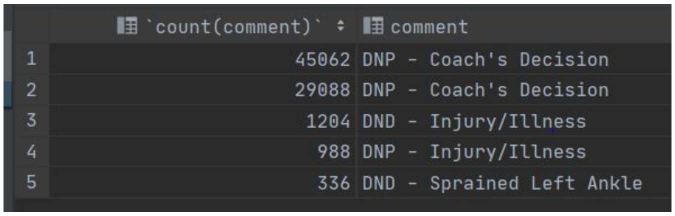
	`sum(L)`	conference
1	2430006	West
2	2684820	East

3. Top five reasons a player missed a game:

   QUERY:

   ```
   select count(comment), comment from player_stats group by comment  order by count(comment)
   DESC LIMIT 5;
   ```

   INFORMATION:



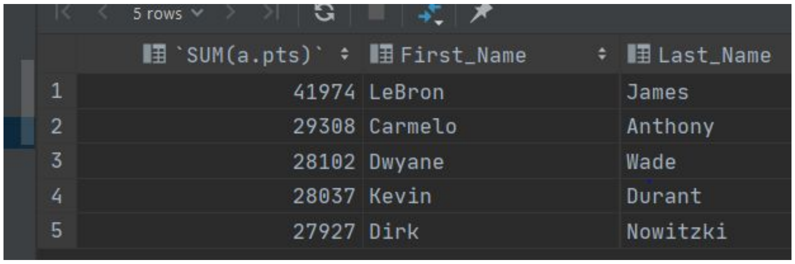
	`count(comment)`	comment
1	45062	DNP - Coach's Decision
2	29088	DNP - Coach's Decision
3	1204	DND - Injury/Illness
4	988	DNP - Injury/Illness
5	336	DND - Sprained Left Ankle

4. Top 5 scorers between 2003 and 2019:

QUERY:

```
select SUM(a.pts), b.First_Name, b.Last_Name FROM player_stats a JOIN
players_name_directory b on a.id = b.id GROUP BY b.First_Name, b.Last_Name ORDER BY
SUM(a.pts)  DESC LIMIT 5;
```

INFORMATION:



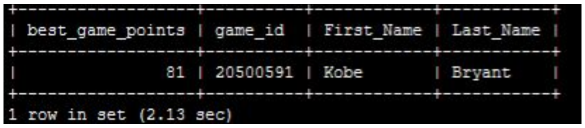
	`SUM(a.pts)`	First_Name	Last_Name
1	41974	LeBron	James
2	29308	Carmelo	Anthony
3	28102	Dwyane	Wade
4	28037	Kevin	Durant
5	27927	Dirk	Nowitzki

5. The player with most scored points with the game id of that game is:

QUERY:

select a.pts as best_game_points, b.game_id, b.First_Name, b.Last_Name FROM player_stats a JOIN players_name_directory b on a.id = b.id ORDER BY a.pts DESC LIMIT 1;

INFORMATION:



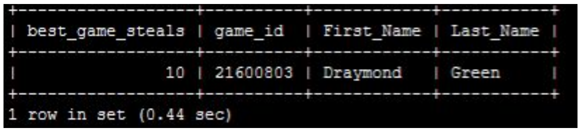
```
+------------------+----------+------------+-----------+
| best_game_points | game_id  | First_Name | Last_Name |
+------------------+----------+------------+-----------+
|               81 | 20500591 | Kobe       | Bryant    |
+------------------+----------+------------+-----------+
1 row in set (2.13 sec)
```

6. The player with most steals with the game id of that game is:

QUERY:

select a.stl as best_game_steals, b.game_id, b.First_Name, b.Last_Name FROM player_stats a JOIN players_name_directory b on a.id = b.id ORDER BY a.stl DESC LIMIT 1;

INFORMATION:



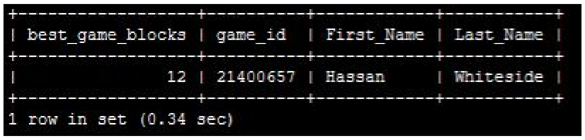
```
+------------------+----------+------------+-----------+
| best_game_steals | game_id  | First_Name | Last_Name |
+------------------+----------+------------+-----------+
|               10 | 21600803 | Draymond   | Green     |
+------------------+----------+------------+-----------+
1 row in set (0.44 sec)
```

7. The player with most blocks with the game id of that game is

QUERY:

select a.blk as best_game_blocks, b.game_id, b.First_Name, b.Last_Name FROM player_stats a JOIN players_name_directory b on a.id = b.id ORDER BY a.blk DESC LIMIT 1;

INFORMATION:



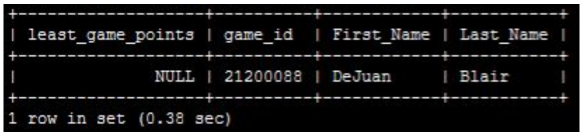
```
+------------------+----------+------------+-----------+
| best_game_blocks | game_id  | First_Name | Last_Name |
+------------------+----------+------------+-----------+
|               12 | 21400657 | Hassan     | Whiteside |
+------------------+----------+------------+-----------+
1 row in set (0.34 sec)
```

8. The player with the least scored points with the game id of that game is:

    QUERY:

    select a.pts as least_game_points, b.game_id, b.First_Name, b.Last_Name FROM player_stats a JOIN players_name_directory b on a.id = b.id ORDER BY a.pts ASC LIMIT 1;

    INFORMATION:



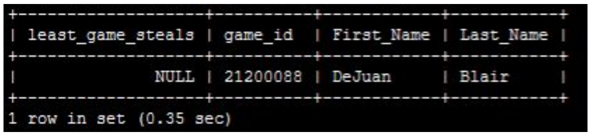
```
+-------------------+----------+------------+-----------+
| least_game_points | game_id  | First_Name | Last_Name |
+-------------------+----------+------------+-----------+
|              NULL | 21200088 | DeJuan     | Blair     |
+-------------------+----------+------------+-----------+
1 row in set (0.38 sec)
```

9. The player with the least steals with the game id of that game is:

    QUERY:

    select a.stl as least_game_steals, b.game_id, b.First_Name, b.Last_Name FROM player_stats a JOIN players_name_directory b on a.id = b.id ORDER BY a.stl ASC LIMIT 1;

    INFORMATION:



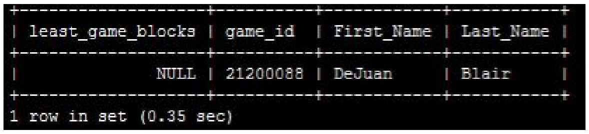
```
+-------------------+----------+------------+-----------+
| least_game_steals | game_id  | First_Name | Last_Name |
+-------------------+----------+------------+-----------+
|              NULL | 21200088 | DeJuan     | Blair     |
+-------------------+----------+------------+-----------+
1 row in set (0.35 sec)
```

10. The player with the least blocks with the game id of that game is:

    QUERY:

    select a.blk as least_game_blocks, b.game_id, b.First_Name, b.Last_Name FROM player_stats a JOIN players_name_directory b on a.id = b.id ORDER BY a.blk ASC LIMIT 1;

    INFORMATION:



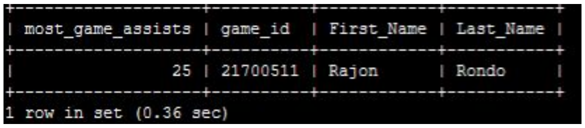
```
+-------------------+----------+------------+-----------+
| least_game_blocks | game_id  | First_Name | Last_Name |
+-------------------+----------+------------+-----------+
|              NULL | 21200088 | DeJuan     | Blair     |
+-------------------+----------+------------+-----------+
1 row in set (0.35 sec)
```

11. The player with most assists with the game id of that game is:

    QUERY:

    select a.ast as most_game_assists, b.game_id, b.First_Name, b.Last_Name FROM player_stats a JOIN players_name_directory b on a.id = b.id ORDER BY a.ast DESC LIMIT 1;

INFORMATION:



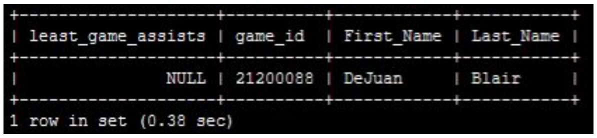
```
+--------------------+----------+------------+-----------+
| most_game_assists | game_id  | First_Name | Last_Name |
+--------------------+----------+------------+-----------+
|                 25 | 21700511 | Rajon      | Rondo     |
+--------------------+----------+------------+-----------+
1 row in set (0.36 sec)
```

12. The player with least assists with the game id of that game is:

    QUERY:

    select a.ast as least_game_assists, b.game_id, b.First_Name, b.Last_Name FROM player_stats a JOIN players_name_directory b on a.id = b.id ORDER BY a.ast ASC LIMIT 1;

    INFORMATION:



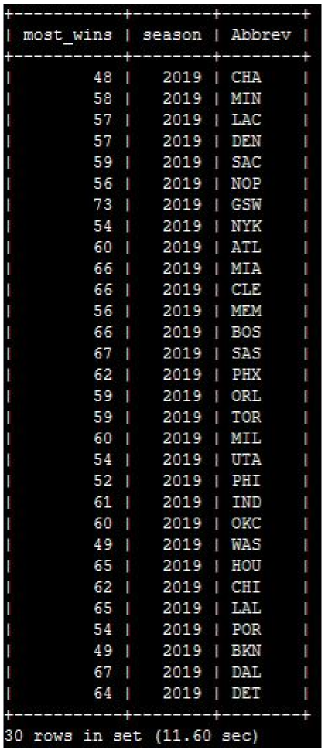
```
+--------------------+----------+------------+-----------+
| least_game_assists | game_id  | First_Name | Last_Name |
+--------------------+----------+------------+-----------+
|               NULL | 21200088 | DeJuan     | Blair     |
+--------------------+----------+------------+-----------+
1 row in set (0.38 sec)
```

13. The teams with maximum wins that played home last year are:

    QUERY:

    select MAX(a.W) as most_wins, h.season, b.Abbrev FROM team_performance_stats a JOIN team_info b on a.team_performance_id = b.team_info_id JOIN final_home_team_numbers h on h.home_team_id = b.team_info_id WHERE h.season = 2019 GROUP BY b.Abbrev;

    INFORMATION:



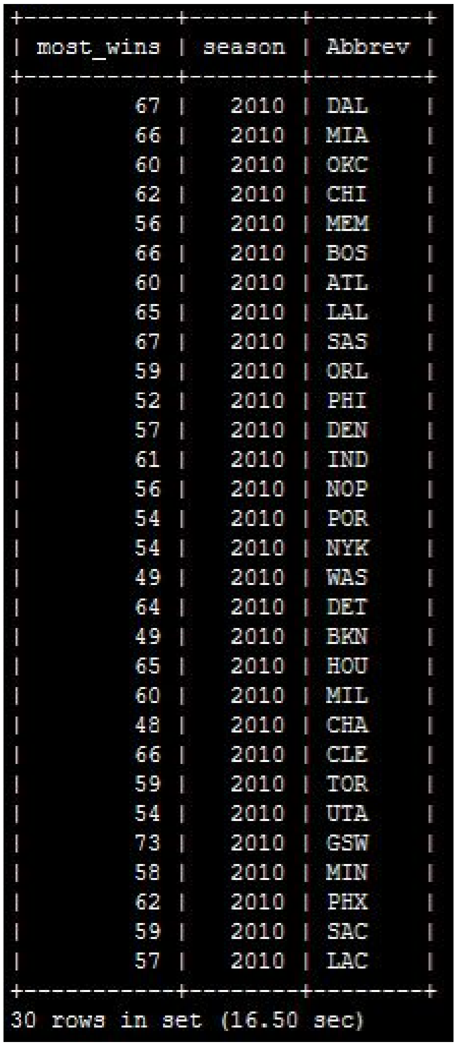
```
+-----------+--------+--------+
| most_wins | season | Abbrev |
+-----------+--------+--------+
|        48 |   2019 | CHA    |
|        58 |   2019 | MIN    |
|        57 |   2019 | LAC    |
|        57 |   2019 | DEN    |
|        59 |   2019 | SAC    |
|        56 |   2019 | NOP    |
|        73 |   2019 | GSW    |
|        54 |   2019 | NYK    |
|        60 |   2019 | ATL    |
|        66 |   2019 | MIA    |
|        66 |   2019 | CLE    |
|        56 |   2019 | MEM    |
|        66 |   2019 | BOS    |
|        67 |   2019 | SAS    |
|        62 |   2019 | PHX    |
|        59 |   2019 | ORL    |
|        59 |   2019 | TOR    |
|        60 |   2019 | MIL    |
|        54 |   2019 | UTA    |
|        52 |   2019 | PHI    |
|        61 |   2019 | IND    |
|        60 |   2019 | OKC    |
|        49 |   2019 | WAS    |
|        65 |   2019 | HOU    |
|        62 |   2019 | CHI    |
|        65 |   2019 | LAL    |
|        54 |   2019 | POR    |
|        49 |   2019 | BKN    |
|        67 |   2019 | DAL    |
|        64 |   2019 | DET    |
+-----------+--------+--------+
30 rows in set (11.60 sec)
```

14. The teams with the maximum wins that played away from home in the year 2010 are:

QUERY:

select MAX(a.W) as most_wins, h.season, b.Abbrev FROM team_performance_stats a JOIN team_info b on a.team_performance_id = b.team_info_id JOIN final_team_away_numbers h on h.visitor_team_id = b.team_info_id WHERE h.season = 2010 GROUP BY b.Abbrev;

INFORMATION:



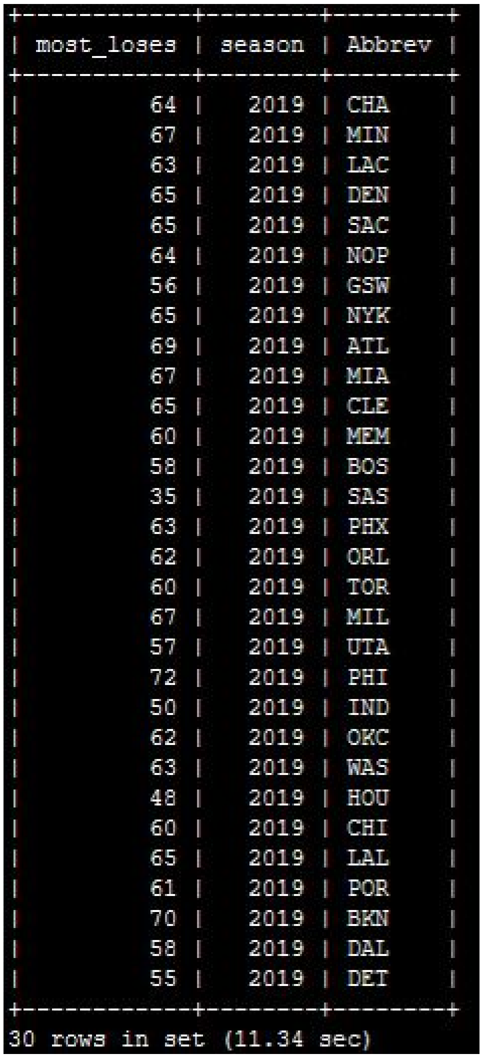
```
+-----------+--------+--------+
| most_wins | season | Abbrev |
+-----------+--------+--------+
|        67 |   2010 | DAL    |
|        66 |   2010 | MIA    |
|        60 |   2010 | OKC    |
|        62 |   2010 | CHI    |
|        56 |   2010 | MEM    |
|        66 |   2010 | BOS    |
|        60 |   2010 | ATL    |
|        65 |   2010 | LAL    |
|        67 |   2010 | SAS    |
|        59 |   2010 | ORL    |
|        52 |   2010 | PHI    |
|        57 |   2010 | DEN    |
|        61 |   2010 | IND    |
|        56 |   2010 | NOP    |
|        54 |   2010 | POR    |
|        54 |   2010 | NYK    |
|        49 |   2010 | WAS    |
|        64 |   2010 | DET    |
|        49 |   2010 | BKN    |
|        65 |   2010 | HOU    |
|        60 |   2010 | MIL    |
|        48 |   2010 | CHA    |
|        66 |   2010 | CLE    |
|        59 |   2010 | TOR    |
|        54 |   2010 | UTA    |
|        73 |   2010 | GSW    |
|        58 |   2010 | MIN    |
|        62 |   2010 | PHX    |
|        59 |   2010 | SAC    |
|        57 |   2010 | LAC    |
+-----------+--------+--------+
30 rows in set (16.50 sec)
```

15. The teams with maximum losses that played home last year are:

QUERY:

select MAX(a.L) as most_loses, h.season, b.Abbrev FROM team_performance_stats a JOIN team_info b on a.team_performance_id = b.team_info_id JOIN final_home_team_numbers h on h.home_team_id = b.team_info_id WHERE h.season = 2019 GROUP BY b.Abbrev;

INFORMATION:



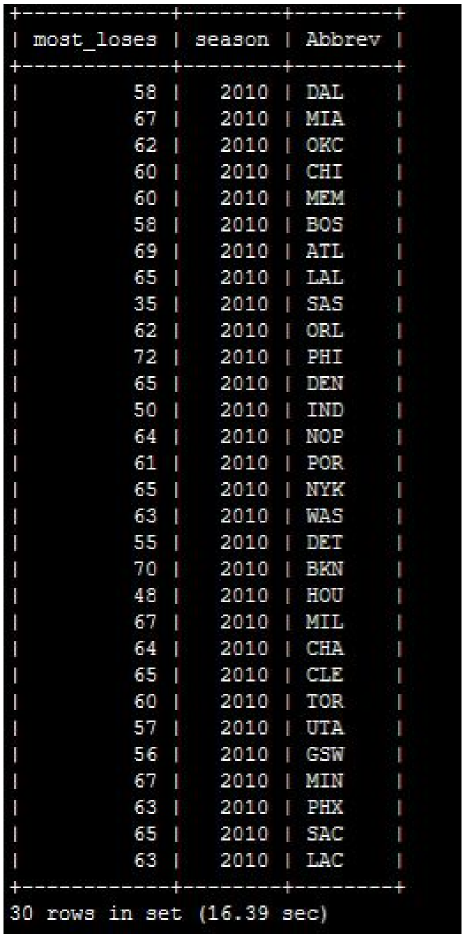
```
+------------+--------+--------+
| most_loses | season | Abbrev |
+------------+--------+--------+
|         64 |   2019 | CHA    |
|         67 |   2019 | MIN    |
|         63 |   2019 | LAC    |
|         65 |   2019 | DEN    |
|         65 |   2019 | SAC    |
|         64 |   2019 | NOP    |
|         56 |   2019 | GSW    |
|         65 |   2019 | NYK    |
|         69 |   2019 | ATL    |
|         67 |   2019 | MIA    |
|         65 |   2019 | CLE    |
|         60 |   2019 | MEM    |
|         58 |   2019 | BOS    |
|         35 |   2019 | SAS    |
|         63 |   2019 | PHX    |
|         62 |   2019 | ORL    |
|         60 |   2019 | TOR    |
|         67 |   2019 | MIL    |
|         57 |   2019 | UTA    |
|         72 |   2019 | PHI    |
|         50 |   2019 | IND    |
|         62 |   2019 | OKC    |
|         63 |   2019 | WAS    |
|         48 |   2019 | HOU    |
|         60 |   2019 | CHI    |
|         65 |   2019 | LAL    |
|         61 |   2019 | POR    |
|         70 |   2019 | BKN    |
|         58 |   2019 | DAL    |
|         55 |   2019 | DET    |
+------------+--------+--------+
30 rows in set (11.34 sec)
```

16. The teams with the maximum losses that played away from home in the year 2010 are:

    QUERY:

    select MAX(a.L) as most_loses, h.season, b.Abbrev FROM team_performance_stats a JOIN team_info b on a.team_performance_id = b.team_info_id JOIN final_team_away_numbers h on h.visitor_team_id = b.team_info_id WHERE h.season = 2010 GROUP BY b.Abbrev;

INFORMATION:



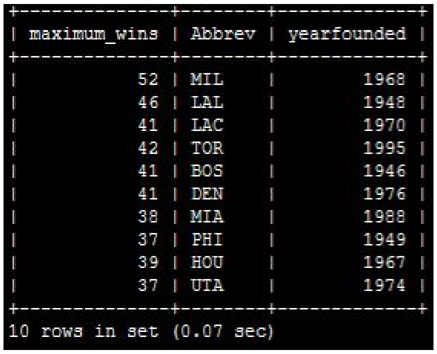
```
+------------+--------+--------+
| most_loses | season | Abbrev |
+------------+--------+--------+
|         58 |   2010 | DAL    |
|         67 |   2010 | MIA    |
|         62 |   2010 | OKC    |
|         60 |   2010 | CHI    |
|         60 |   2010 | MEM    |
|         58 |   2010 | BOS    |
|         69 |   2010 | ATL    |
|         65 |   2010 | LAL    |
|         35 |   2010 | SAS    |
|         62 |   2010 | ORL    |
|         72 |   2010 | PHI    |
|         65 |   2010 | DEN    |
|         50 |   2010 | IND    |
|         64 |   2010 | NOP    |
|         61 |   2010 | POR    |
|         65 |   2010 | NYK    |
|         63 |   2010 | WAS    |
|         55 |   2010 | DET    |
|         70 |   2010 | BKN    |
|         48 |   2010 | HOU    |
|         67 |   2010 | MIL    |
|         64 |   2010 | CHA    |
|         65 |   2010 | CLE    |
|         60 |   2010 | TOR    |
|         57 |   2010 | UTA    |
|         56 |   2010 | GSW    |
|         67 |   2010 | MIN    |
|         63 |   2010 | PHX    |
|         65 |   2010 | SAC    |
|         63 |   2010 | LAC    |
+------------+--------+--------+
30 rows in set (16.39 sec)
```

17. In the year 2019 the list of top 10 team names and their maximum wins along with their founding year is:

QUERY:

select MAX(a.W) as maximum_wins, b.Abbrev, b.yearfounded FROM team_performance_stats a JOIN team_info b on a.team_performance_id = b.team_info_id WHERE a.season = 2019 GROUP BY b.team_info_id ORDER BY SUM(a.W) DESC LIMIT 10;

INFORMATION:



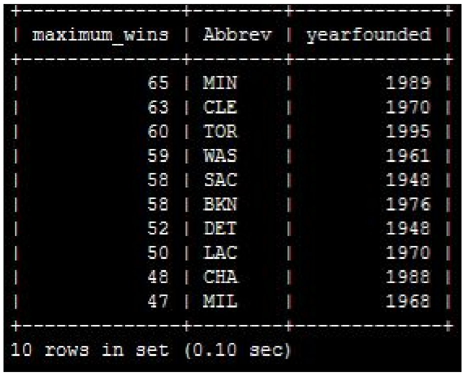
```
+--------------+--------+-------------+
| maximum_wins | Abbrev | yearfounded |
+--------------+--------+-------------+
|           52 | MIL    |        1968 |
|           46 | LAL    |        1948 |
|           41 | LAC    |        1970 |
|           42 | TOR    |        1995 |
|           41 | BOS    |        1946 |
|           41 | DEN    |        1976 |
|           38 | MIA    |        1988 |
|           37 | PHI    |        1949 |
|           39 | HOU    |        1967 |
|           37 | UTA    |        1974 |
+--------------+--------+-------------+
10 rows in set (0.07 sec)
```

18. In the year 2015 the list of top 10 team names and their maximum loses along with their founding year is:

QUERY:

select MAX(a.L) as maximum_wins, b.Abbrev, b.yearfounded FROM team_performance_stats a JOIN team_info b on a.team_performance_id = b.team_info_id   WHERE a.season = 2010 GROUP BY b.team_info_id   ORDER BY SUM(a.L) DESC LIMIT 10;

INFORMATION:



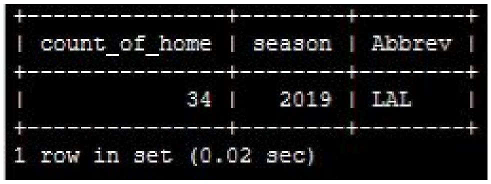
```
+--------------+--------+-------------+
| maximum_wins | Abbrev | yearfounded |
+--------------+--------+-------------+
|           65 | MIN    |        1989 |
|           63 | CLE    |        1970 |
|           60 | TOR    |        1995 |
|           59 | WAS    |        1961 |
|           58 | SAC    |        1948 |
|           58 | BKN    |        1976 |
|           52 | DET    |        1948 |
|           50 | LAC    |        1970 |
|           48 | CHA    |        1988 |
|           47 | MIL    |        1968 |
+--------------+--------+-------------+
10 rows in set (0.10 sec)
```

19. The team that played home the most in the year 2019 is the Los Angeles Lakers.

QUERY:

select COUNT(*) as count_of_home, h.season, b.Abbrev FROM team_info b JOIN final_team_away_numbers h on h.visitor_team_id = b.team_info_id WHERE h.season = 2019 GROUP BY b.Abbrev ORDER BY count_of_home DESC LIMIT 1;

INFORMATION:



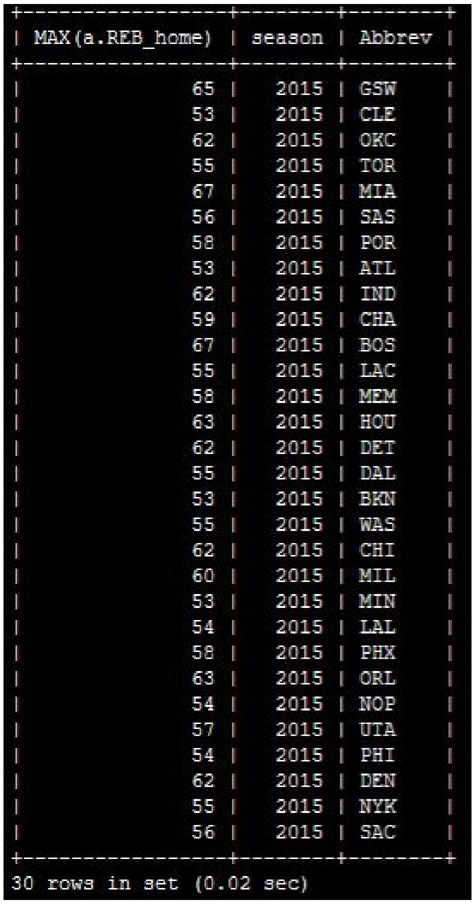
```
+---------------+--------+--------+
| count_of_home | season | Abbrev |
+---------------+--------+--------+
|            34 |   2019 | LAL    |
+---------------+--------+--------+
1 row in set (0.02 sec)
```

20. In the year 2015, the teams had the most defensive rebound while playing home are:

QUERY:

select MAX(a.REB_home), a.season, b.Abbrev FROM team_info b JOIN final_home_team_numbers a on a.home_team_id = b.team_info_id WHERE a.season = 2015 GROUP BY b.Abbrev;

INFORMATION:



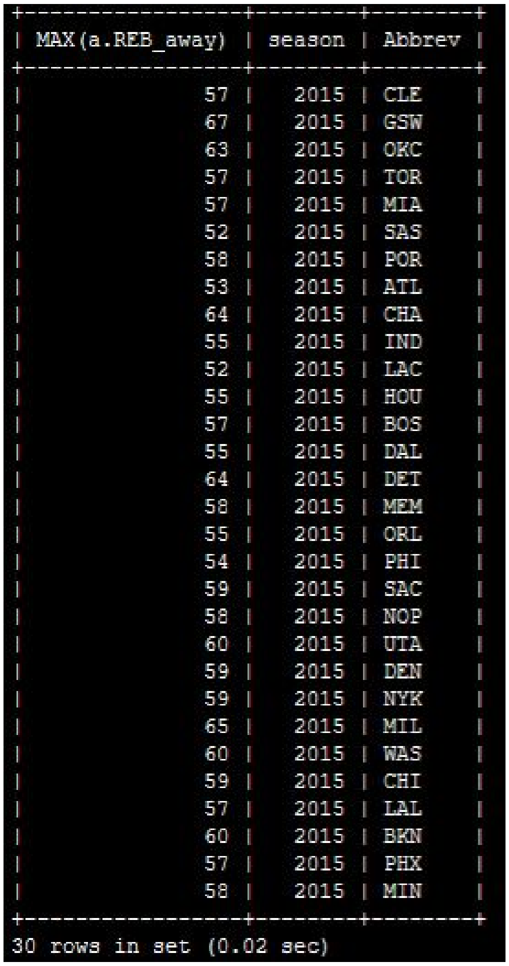
```
+-----------------+--------+--------+
| MAX(a.REB_home) | season | Abbrev |
+-----------------+--------+--------+
|              65 |   2015 | GSW    |
|              53 |   2015 | CLE    |
|              62 |   2015 | OKC    |
|              55 |   2015 | TOR    |
|              67 |   2015 | MIA    |
|              56 |   2015 | SAS    |
|              58 |   2015 | POR    |
|              53 |   2015 | ATL    |
|              62 |   2015 | IND    |
|              59 |   2015 | CHA    |
|              67 |   2015 | BOS    |
|              55 |   2015 | LAC    |
|              58 |   2015 | MEM    |
|              63 |   2015 | HOU    |
|              62 |   2015 | DET    |
|              55 |   2015 | DAL    |
|              53 |   2015 | BKN    |
|              55 |   2015 | WAS    |
|              62 |   2015 | CHI    |
|              60 |   2015 | MIL    |
|              53 |   2015 | MIN    |
|              54 |   2015 | LAL    |
|              58 |   2015 | PHX    |
|              63 |   2015 | ORL    |
|              54 |   2015 | NOP    |
|              57 |   2015 | UTA    |
|              54 |   2015 | PHI    |
|              62 |   2015 | DEN    |
|              55 |   2015 | NYK    |
|              56 |   2015 | SAC    |
+-----------------+--------+--------+
30 rows in set (0.02 sec)
```

21. In the year 2015, the teams had the most defensive rebound while playing away are:

QUERY:

select MAX(a.REB_away), a.season, b.Abbrev FROM team_info b JOIN final_team_away_numbers a on a.visitor_team_id = b.team_info_id WHERE a.season = 2015 GROUP BY b.Abbrev;

INFORMATION:



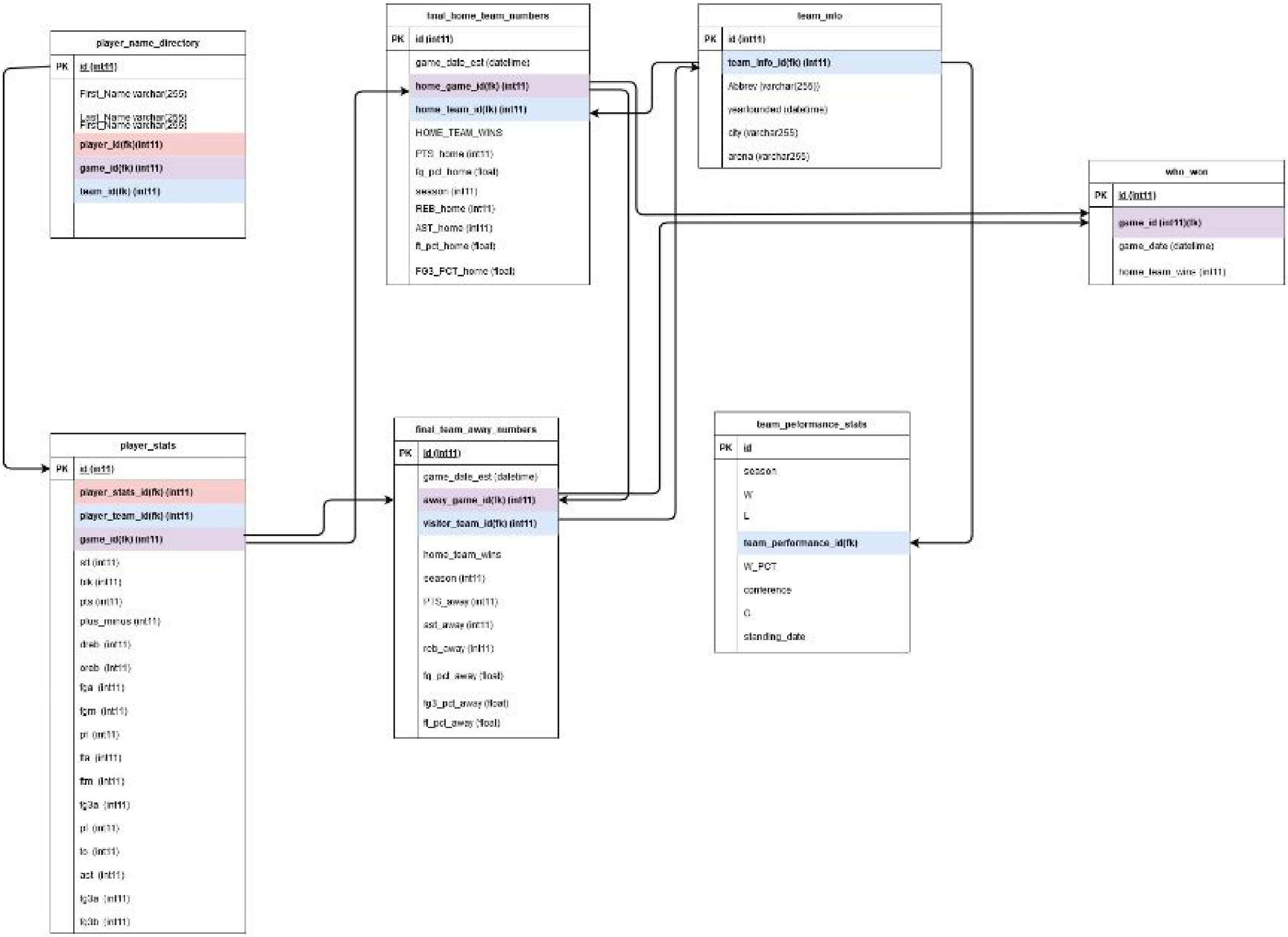
```
+-----------------+--------+--------+
| MAX(a.REB_away) | season | Abbrev |
+-----------------+--------+--------+
|              57 |   2015 | CLE    |
|              67 |   2015 | GSW    |
|              63 |   2015 | OKC    |
|              57 |   2015 | TOR    |
|              57 |   2015 | MIA    |
|              52 |   2015 | SAS    |
|              58 |   2015 | POR    |
|              53 |   2015 | ATL    |
|              64 |   2015 | CHA    |
|              55 |   2015 | IND    |
|              52 |   2015 | LAC    |
|              55 |   2015 | HOU    |
|              57 |   2015 | BOS    |
|              55 |   2015 | DAL    |
|              64 |   2015 | DET    |
|              58 |   2015 | MEM    |
|              55 |   2015 | ORL    |
|              54 |   2015 | PHI    |
|              59 |   2015 | SAC    |
|              58 |   2015 | NOP    |
|              60 |   2015 | UTA    |
|              59 |   2015 | DEN    |
|              59 |   2015 | NYK    |
|              65 |   2015 | MIL    |
|              60 |   2015 | WAS    |
|              59 |   2015 | CHI    |
|              57 |   2015 | LAL    |
|              60 |   2015 | BKN    |
|              57 |   2015 | PHX    |
|              58 |   2015 | MIN    |
+-----------------+--------+--------+
30 rows in set (0.02 sec)
```

Please find attached both the snippet and a JPEG file of the ERD diagrams of the database for your future references. Feel free to contact incase you need any further information or help. It was a pleasure working with you. Looking forward to meeting you soon.

Best Regards,

David Josue Molina

Tabassum Nisha



	player_name_directory
PK	id (int11)
	First_Name varchar(255)
	Last_Name varchar(255) First_Name varchar(255)
	player_id(fk)(int11)
	game_id(fk) (int11)
	team_id(fk) (int11)

	final_home_team_numbers
PK	id (int11)
	game_date_est (datetime)
	home_game_id(fk) (int11)
	home_team_id(fk) (int11)
	HOME_TEAM_WINS
	PTS_home (int11)
	fg_pct_home (float)
	season (int11)
	REB_home (int11)
	AST_home (int11)
	ft_pct_home (float)
	FG3_PCT_home (float)

	team_info
PK	id (int11)
	team_info_id(fk) (int11)
	Abbrev (varchar(256))
	yearfounded (datetime)
	city (varchar255)
	arena (varchar255)

	who_won
PK	id (int11)
	game_id (int11)(fk)
	game_date (datetime)
	home_team_wins (int11)

	player_stats
PK	id (int11)
	player_stats_id(fk) (int11)
	player_team_id(fk) (int11)
	game_id(fk) (int11)
	stl (int11)
	blk (int11)
	pts (int11)
	plus_minus (int11)
	dreb (int11)
	oreb (int11)
	fga (int11)
	fgm (int11)
	pf (int11)
	fta (int11)
	ftm (int11)
	fg3a (int11)
	pf (int11)
	to (int11)
	ast (int11)
	fg3a (int11)
	fg3b (int11)

	final_team_away_numbers
PK	id (int11)
	game_date_est (datetime)
	away_game_id(fk) (int11)
	visitor_team_id(fk) (int11)
	home_team_wins
	season (int11)
	PTS_away (int11)
	ast_away (int11)
	reb_away (int11)
	fg_pct_away (float)
	fg3_pct_away (float)
	ft_pct_away (float)

	team_performance_stats
PK	id
	season
	W
	L
	team_performance_id(fk)
	W_PCT
	conference
	G
	standing_date