SQL Query:

select games players in lpl league whose position is mid in a descending order of name

```
select * from Players where League = 'LPL' and Position = 'mid' order by Name
DESC ;
```

select all different League names from Players

```
select distinct League from Players;
```

ranks the number of player in different leagues in descending order

```
select League, count(*) as players_number
from Players
group by League
order by players_number DESC;
```

count the number of players in every position in every league

```
SELECT
    League,
    SUM(CASE WHEN Position = 'top' THEN 1 ELSE 0 END) AS top,
    SUM(CASE WHEN Position = 'bot' THEN 1 ELSE 0 END) AS bot,
    SUM(CASE WHEN Position = 'jng' THEN 1 ELSE 0 END) AS jng,
    SUM(CASE WHEN Position = 'sup' THEN 1 ELSE 0 END) AS sup,
    SUM(CASE WHEN Position = 'mid' THEN 1 ELSE 0 END) AS mid
FROM Players
GROUP BY League;
```

get the number of players that belong to the same team

```
select Teamname, League, count(*) as players_number
from Players
group by TeamId
order by players_number DESC;
```

calculate the winning rate of red side and blue side

```
SELECT
    win_side,
    COUNT(*) / (SELECT COUNT(*) FROM Matches) * 100 AS win_percentage
FROM Matches
GROUP BY win_side;
```

//get team win rate of different side

```
select T.teamid, T.name, T.league, winrate.side, winrate.win_rate from
Team T
join
(select side, Teamid, Teamname,
 CASE
```

```sql
    WHEN COUNT(*) < 3 THEN NULL
    ELSE CAST(SUM(result) AS FLOAT) / COUNT(*)
 END AS win_rate
from TeamPerformance
Group by  side, Teamid, Teamname) winrate
on T.TeamID = winrate.Teamid
order by T.league, T.name, winrate.side;
```

//get team win rate

```sql
select T.teamid, T.name, T.league, winrate.win_rate from
Team T
join
(select Teamid, Teamname,
 CASE
   WHEN COUNT(*) < 3 THEN NULL
   ELSE CAST(SUM(result) AS FLOAT) / COUNT(*)
 END AS win_rate
from TeamPerformance
Group by  Teamid, Teamname) winrate
on T.TeamID = winrate.Teamid
order by T.league,winrate.win_rate,T.name;
```

//get player win rate and Number of wins and loses

```sql
select P.name, P.league, winrate.win_rate, winrate.Numberofwins,
winrate.NumberofLoses from
Players P
join
(select *,
 CASE
   WHEN COUNT(*) < 6 THEN NULL
   ELSE CAST(SUM(result) AS FLOAT) / COUNT(*)
 END AS win_rate,
 sum(result) as Numberofwins,
 count(*)-sum(result) as NumberofLoses
from
(select playername,
 CASE WHEN pp.Side = M.Win_side THEN 1 ELSE 0 END as result
from PlayerPerformance pp
join Matches M
on M.MatchID = pp.MatchID
join Players Ps
on Ps.Name = pp.playername
where Ps.League = M.League) resulttable
Group by  playername) winrate
on P.name = winrate.playername
order by P.league,winrate.win_rate,P.name;
```

//get team win rate in different season splits(eg. 2021 summer, 2021 Spring)

```sql
select T.teamid, T.name, T.league,  winrate.win_rate, winrate.year,
winrate.Split
from
Team T
join

(select Teamid, Teamname, YEAR(M.Match_date) as year,M.Split,
 CASE
    WHEN COUNT(*) < 3 THEN NULL
    ELSE CAST(SUM(result) AS FLOAT) / COUNT(*)
 END AS win_rate

from TeamPerformance
    join (
        SELECT * FROM Matches
        WHERE Split = 'Spring' or Split = 'Summer'
    ) M
    on TeamPerformance.MatchID = M.MatchID

Group by  Teamid, Teamname, YEAR(M.Match_date),M.Split) winrate
on T.TeamID = winrate.Teamid
order by T.league,T.name, winrate.year, winrate.Split;
```

The query ranks all the players who are in LPL, play more than 5 matches, play game patch over 13 and take one position in the game, for example top, in the descending order of their damage per match.

```sql
SELECT P.Playername, P.Position, M.League, SUM(P.damagetochampions) as
total_damage, AVG(P.damagetochampions) as damage_permatch

FROM PlayerPerformance P

JOIN (select *

FROM Matches

where Patch > 13 and league = "LPL") M on P.MatchID = M.MatchID

where P.Position = "top"

group by P.Playername, P.Position

HAVING count(*) > 5

order by damage_permatch DESC;
```

Database Credential:

Host: database-project-1.cbueggp9avkq.us-east-1.rds.amazonaws.com
User: admin
Password: 550project