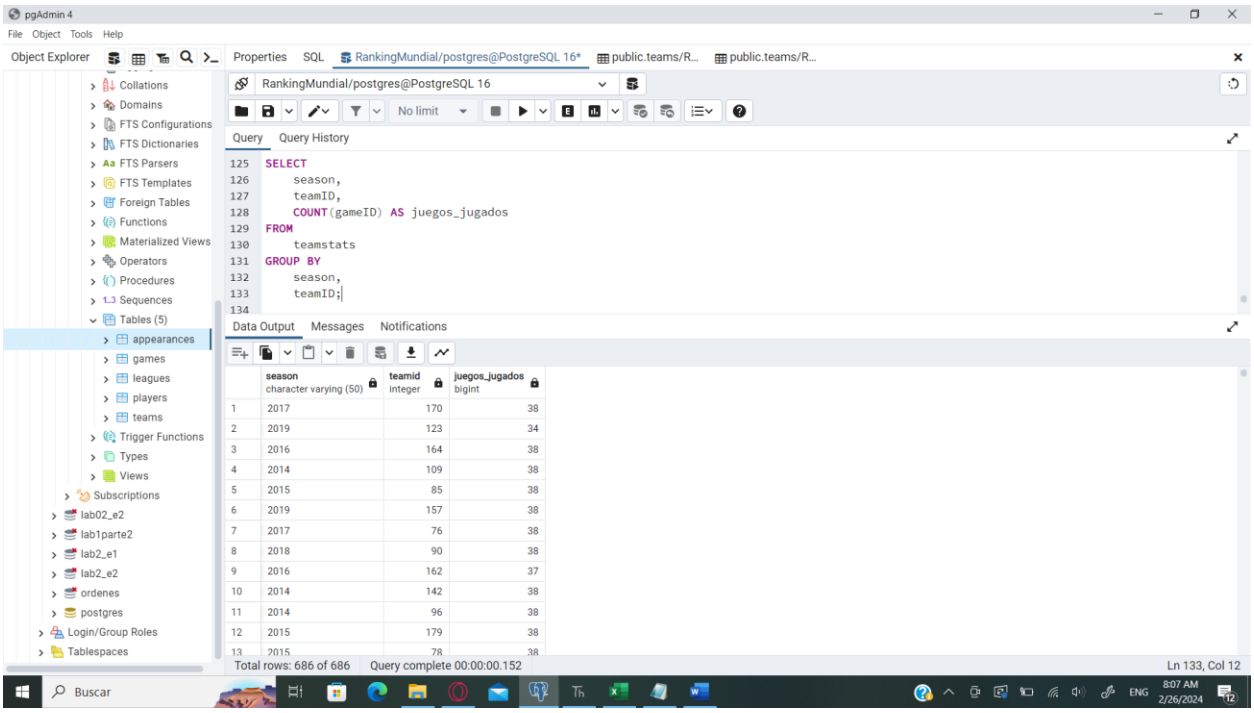
1. La cantidad de juegos jugados en cada temporada por cada equipo, de cada liga (tome en cuenta que cada equipo puede jugar como visitante o como anfitrión.

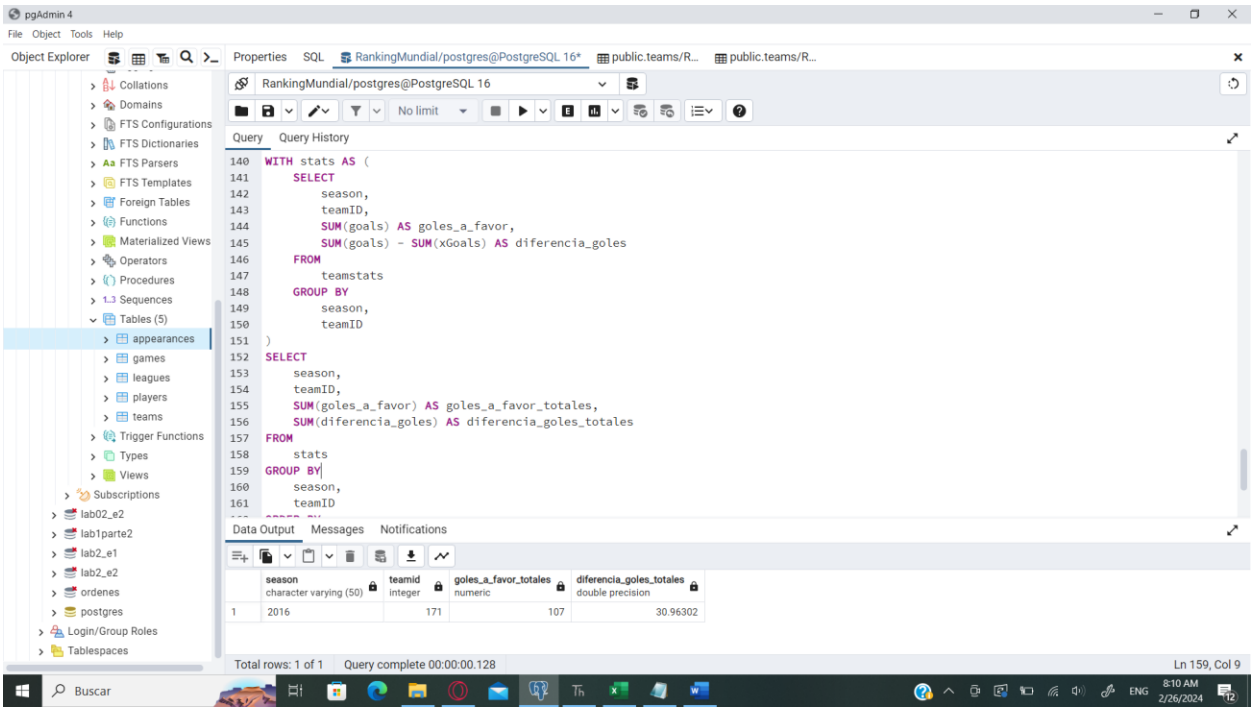
```
SELECT
    season,
    teamID,
    COUNT(gameID) AS juegos_jugados
FROM
    teamstats
GROUP BY
    season,
    teamID;
```



2. ¿Quién es el mejor equipo de todas las ligas y de todas las temporadas según las estadísticas de diferencia de goles?

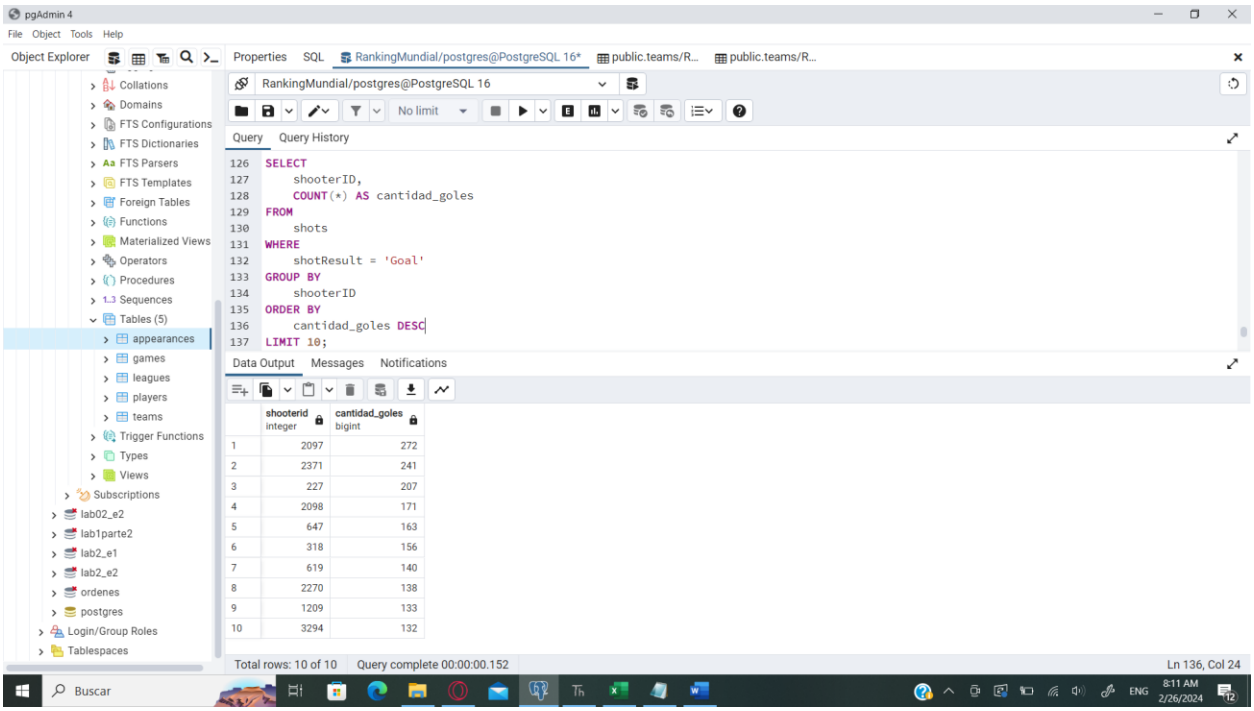
```
WITH stats AS (
    SELECT
        season,
        teamID,
```

```
        SUM(goals) AS goles_a_favor,
        SUM(goals) - SUM(xGoals) AS diferencia_goles
    FROM
        teamstats
    GROUP BY
        season,
        teamID
)
SELECT
    season,
    teamID,
    SUM(goles_a_favor) AS goles_a_favor_totales,
    SUM(diferencia_goles) AS diferencia_goles_totales
FROM
    stats
GROUP BY
    season,
    teamID
ORDER BY
    diferencia_goles_totales DESC
LIMIT 1;
```



3. ¿Quiénes son los jugadores que han realizado mayor cantidad de goles a través de todas las temporadas? ¿Cuáles son los jugadores con mayor cantidad de pases izquierdos y pases derechos que han hecho goles? (Compare contra los resultados del inciso 2 y determine de manera textual si dichos jugadores pertenecen a los equipos del inciso anterior).

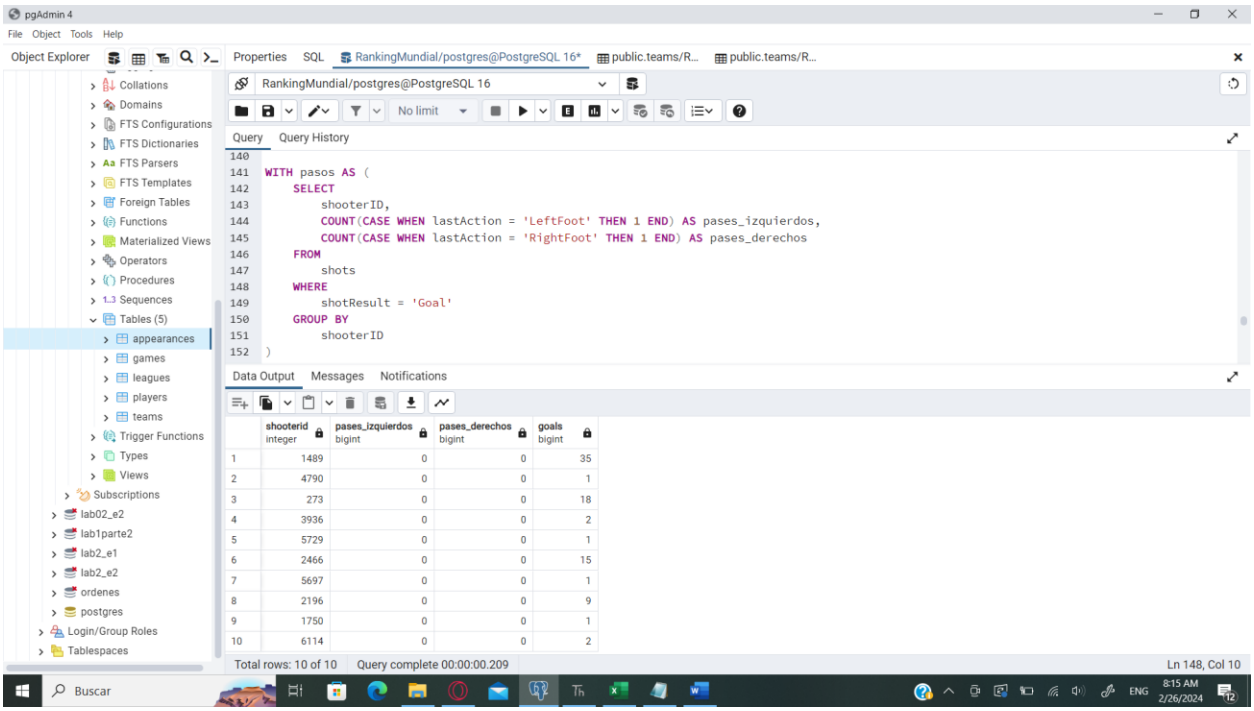
```
SELECT
    shooterID,
    COUNT(*) AS cantidad_goles
FROM
    shots
WHERE
    shotResult = 'Goal'
GROUP BY
    shooterID
ORDER BY
    cantidad_goles DESC
LIMIT 10;
```



4. Realice un comparativo de las probabilidades de todas las casas de apuesta por temporada, liga y equipo, eliminando aquellos equipos que no tienen estadísticas en ninguna casa de apuesta.

```
WITH pasos AS (
    SELECT
        shooterID,
        COUNT(CASE WHEN lastAction = 'LeftFoot' THEN 1 END) AS pases_izquierdos,
        COUNT(CASE WHEN lastAction = 'RightFoot' THEN 1 END) AS pases_derechos
    FROM
        shots
    WHERE
        shotResult = 'Goal'
    GROUP BY
        shooterID
)
SELECT
    p.shooterID,
    p.pases_izquierdos,
```

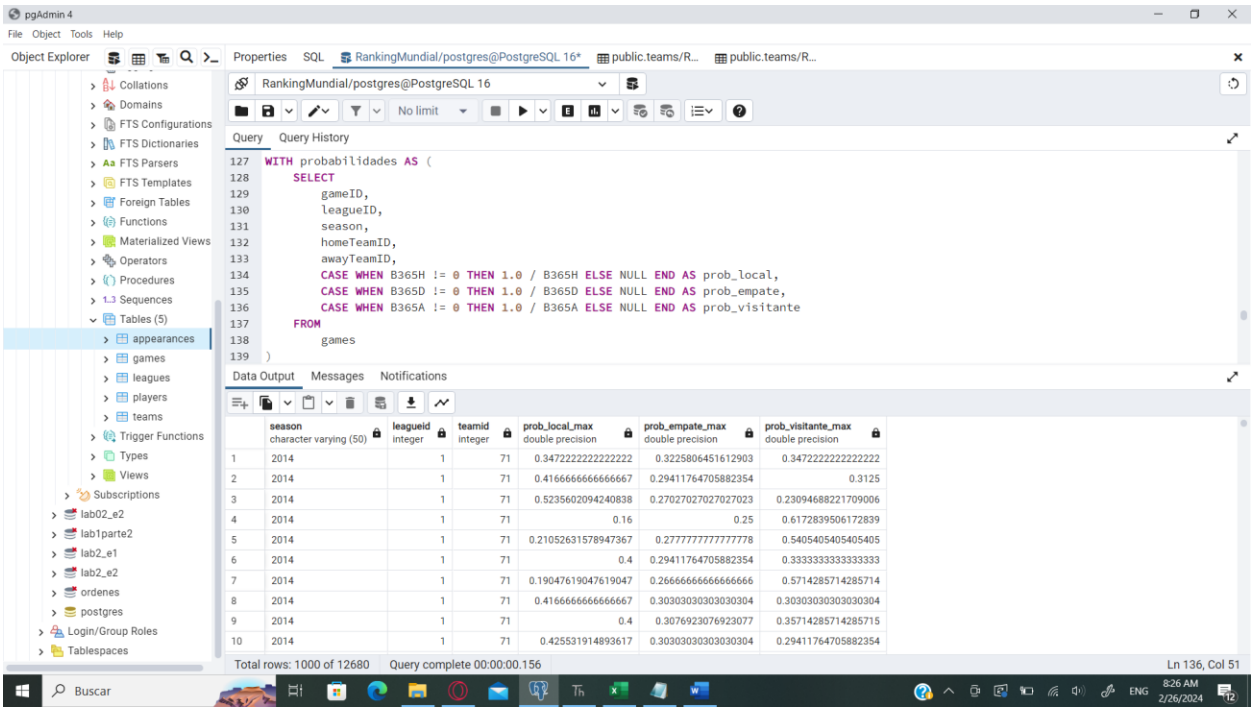
```
    p.pases_derechos,
    s.goals
FROM
    pasos p
INNER JOIN
    (
    SELECT
        shooterID,
        COUNT(*) AS goals
    FROM
        shots
    WHERE
        shotResult = 'Goal'
    GROUP BY
        shooterID
    ) s ON p.shooterID = s.shooterID
ORDER BY
    (p.pases_izquierdos + p.pases_derechos) DESC
LIMIT 10;
```



5. ¿Cuál es el mejor equipo de todas las ligas y de todas las temporadas según las apuestas?

```
WITH probabilidades AS (
    SELECT
        gameID,
        leagueID,
        season,
        homeTeamID,
        awayTeamID,
        CASE WHEN B365H != 0 THEN 1.0 / B365H ELSE NULL END AS prob_local,
        CASE WHEN B365D != 0 THEN 1.0 / B365D ELSE NULL END AS prob_empate,
        CASE WHEN B365A != 0 THEN 1.0 / B365A ELSE NULL END AS prob_visitante
    FROM
        games
)
SELECT
    season,
    leagueID,
```

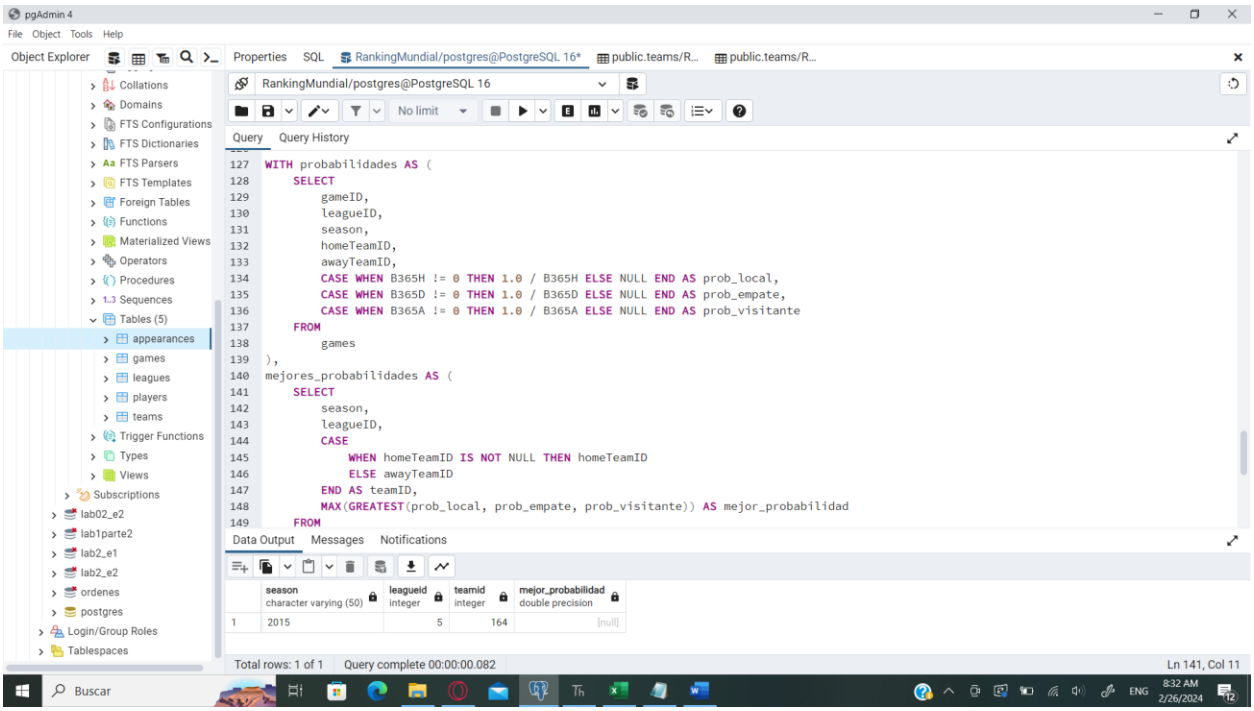
```
    CASE
        WHEN homeTeamID IS NOT NULL THEN homeTeamID
        ELSE awayTeamID
    END AS teamID,
    MAX(prob_local) AS prob_local_max,
    MAX(prob_empate) AS prob_empate_max,
    MAX(prob_visitante) AS prob_visitante_max
FROM
    probabilidades
GROUP BY
    season,
    leagueID,
    homeTeamID,
    awayTeamID
ORDER BY
    season,
    leagueID,
    teamID;
```



5. ¿Cuál es el mejor equipo de todas las ligas y de todas las temporadas según las apuestas?

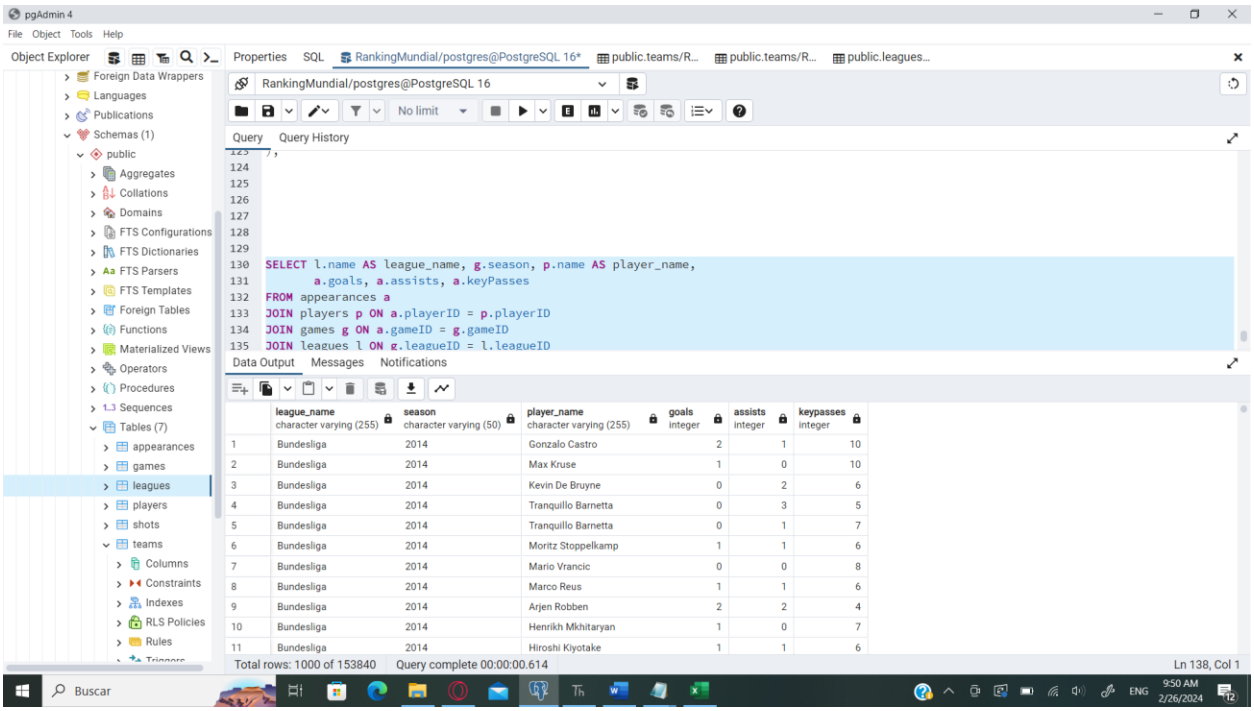
```
WITH probabilidades AS (
    SELECT
        gameID,
        leagueID,
        season,
        homeTeamID,
        awayTeamID,
        CASE WHEN B365H != 0 THEN 1.0 / B365H ELSE NULL END AS prob_local,
        CASE WHEN B365D != 0 THEN 1.0 / B365D ELSE NULL END AS prob_empate,
        CASE WHEN B365A != 0 THEN 1.0 / B365A ELSE NULL END AS prob_visitante
    FROM
        games
),
mejores_probabilidades AS (
    SELECT
```

```
        season,
        leagueID,
        CASE
            WHEN homeTeamID IS NOT NULL THEN homeTeamID
            ELSE awayTeamID
        END AS teamID,
        MAX(GREATEST(prob_local, prob_empate, prob_visitante)) AS mejor_probabilidad
    FROM
        probabilidades
    GROUP BY
        season,
        leagueID,
        homeTeamID,
        awayTeamID
)
SELECT
    season,
    leagueID,
    teamID,
    mejor_probabilidad
FROM
    mejores_probabilidades
ORDER BY
    mejor_probabilidad DESC
LIMIT 1;
```



6. ¿Quiénes son los jugadores de cada liga y cada temporada que tienen los mejores atributos – características de juego -pases, goles, etc.? ¿De acuerdo a este inciso, y comparándolo con el inciso 2 y 5 anteriores, alguno de los jugadores más valiosos se encuentra dentro del mejor equipo?

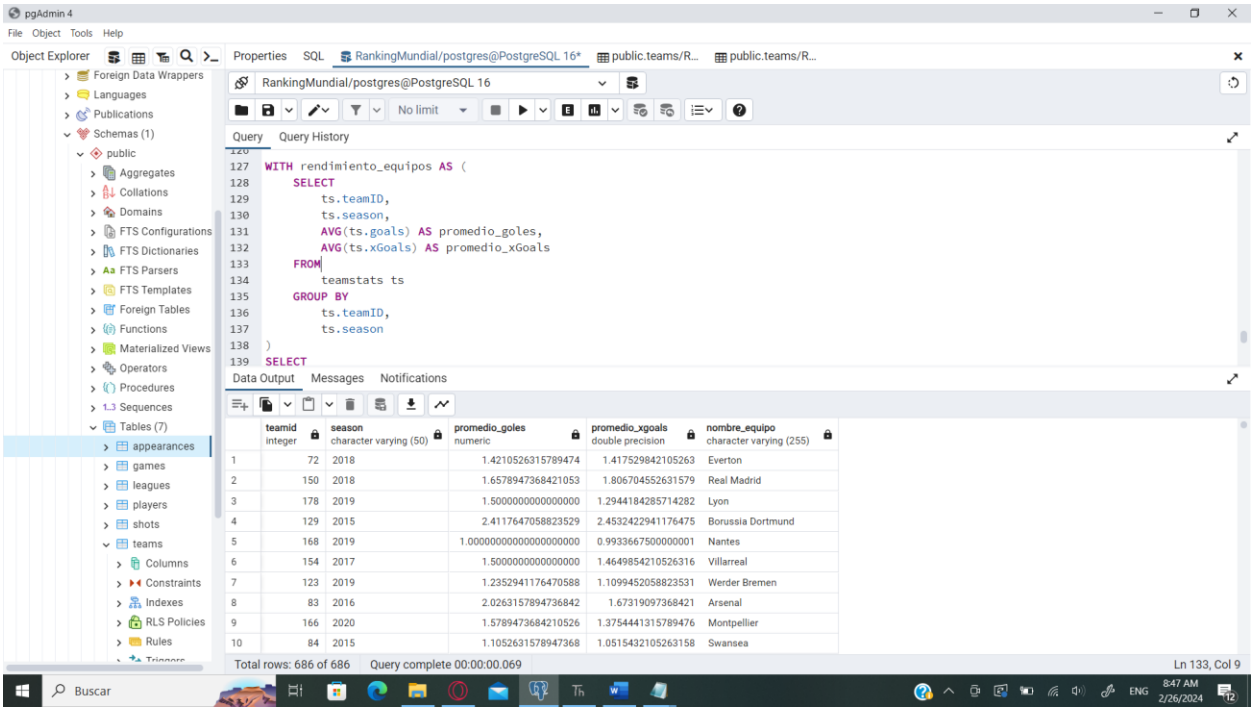
```
SELECT l.name AS league_name, g.season, p.name AS player_name,
    a.goals, a.assists, a.keyPasses
FROM appearances a
JOIN players p ON a.playerID = p.playerID
JOIN games g ON a.gameID = g.gameID
JOIN leagues l ON g.leagueID = l.leagueID
WHERE (a.goals > 0 OR a.assists > 0 OR a.keyPasses > 0)
ORDER BY league_name, g.season, (a.goals + a.assists + a.keyPasses) DESC;
```



7. Obtenga el rendimiento de los equipos en promedio, comparando goles metidos contra la expectativa de goles, determinando qué equipo era quien tenía más expectativa de goles contra quien fue en realidad el que acertó más goles (goals vs expected goals, xgoals) en general, pero también es necesario que lo muestre si dichos equipos jugaron como locales o como extranjeros.

```
WITH rendimiento_equipos AS (
    SELECT
        ts.teamID,
        ts.season,
        AVG(ts.goals) AS promedio_goles,
        AVG(ts.xGoals) AS promedio_xGoals
    FROM
        teamstats ts
    GROUP BY
        ts.teamID,
        ts.season
)
SELECT
    re.teamID,
```

```
    re.season,
    re.promedio_goles,
    re.promedio_xGoals,
    t.name AS nombre_equipo
FROM
    rendimiento_equipos re
INNER JOIN
    teams t ON re.teamID = t.teamID;
```

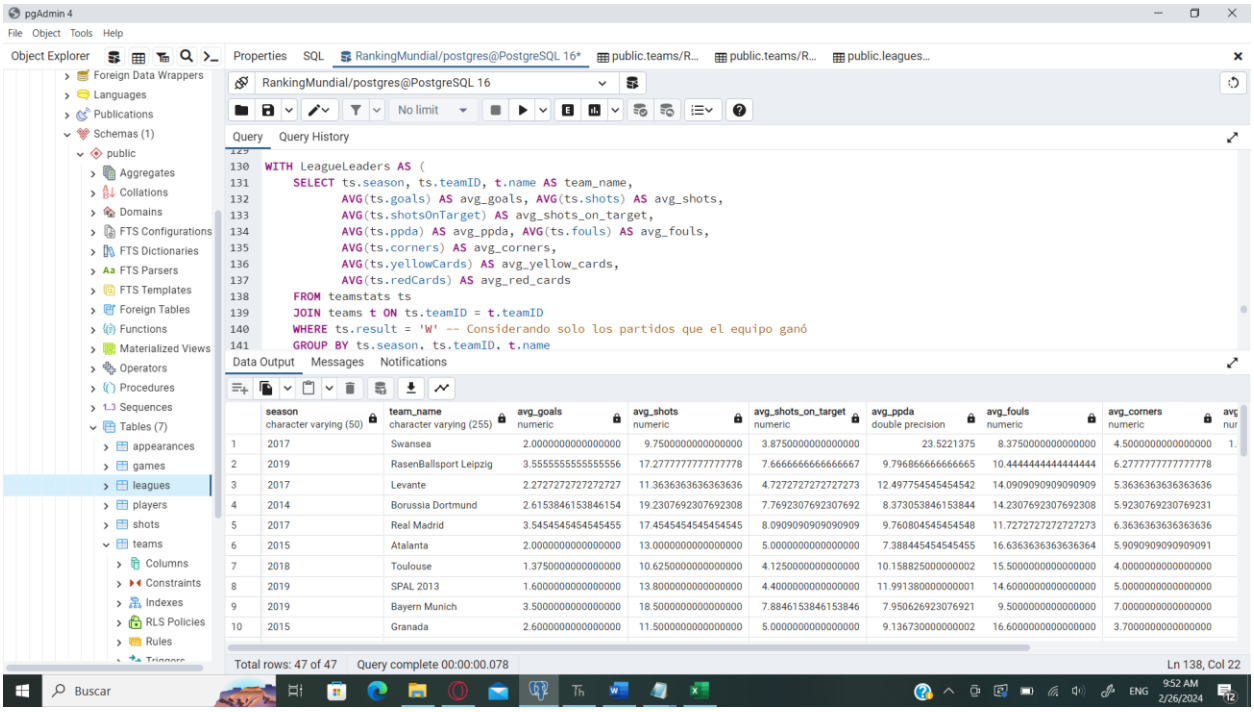


8. ¿Cuáles son las características/atributos de los equipos que han sido los líderes de sus ligas en las distintas temporadas? ¿Sus comportamientos son similares?

```
WITH LeagueLeaders AS (
    SELECT ts.season, ts.teamID, t.name AS team_name,
        AVG(ts.goals) AS avg_goals, AVG(ts.shots) AS avg_shots,
        AVG(ts.shotsOnTarget) AS avg_shots_on_target,
        AVG(ts.ppda) AS avg_ppda, AVG(ts.fouls) AS avg_fouls,
        AVG(ts.corners) AS avg_corners,
        AVG(ts.yellowCards) AS avg_yellow_cards,
```

```
        AVG(ts.redCards) AS avg_red_cards
    FROM teamstats ts
    JOIN teams t ON ts.teamID = t.teamID
    WHERE ts.result = 'W' -- Considerando solo los partidos que el equipo ganó
    GROUP BY ts.season, ts.teamID, t.name
)
SELECT ll.season, ll.team_name, ll.avg_goals, ll.avg_shots,
       ll.avg_shots_on_target, ll.avg_ppda, ll.avg_fouls,
       ll.avg_corners, ll.avg_yellow_cards, ll.avg_red_cards
FROM LeagueLeaders ll
JOIN (
    SELECT season, MAX(avg_goals) AS max_avg_goals,
           MAX(avg_shots) AS max_avg_shots,
           MAX(avg_shots_on_target) AS max_avg_shots_on_target,
           MAX(avg_ppda) AS max_avg_ppda,
           MAX(avg_fouls) AS max_avg_fouls,
           MAX(avg_corners) AS max_avg_corners,
           MAX(avg_yellow_cards) AS max_avg_yellow_cards,
           MAX(avg_red_cards) AS max_avg_red_cards
    FROM LeagueLeaders
    GROUP BY season
) AS MaxValues ON ll.season = MaxValues.season
    AND (ll.avg_goals = MaxValues.max_avg_goals
        OR ll.avg_shots = MaxValues.max_avg_shots
        OR ll.avg_shots_on_target = MaxValues.max_avg_shots_on_target
        OR ll.avg_ppda = MaxValues.max_avg_ppda
        OR ll.avg_fouls = MaxValues.max_avg_fouls
        OR ll.avg_corners = MaxValues.max_avg_corners
        OR ll.avg_yellow_cards = MaxValues.max_avg_yellow_cards
```

OR ll.avg_red_cards = MaxValues.max_avg_red_cards);



9. ¿Según la casa de apuesta Beat365 (tome la mejor probabilidad de las 3 medidas), cuales deberían de ser los equipos que tenían la mayor probabilidad de ganar en cada una de las temporadas (seasons)?

SELECT g.season, t.name AS team_name, g.B365H AS probability_to_win

FROM games g

JOIN teams t ON g.homeTeamID = t.teamID

WHERE g.B365H = (SELECT MAX(B365H) FROM games WHERE season = g.season)

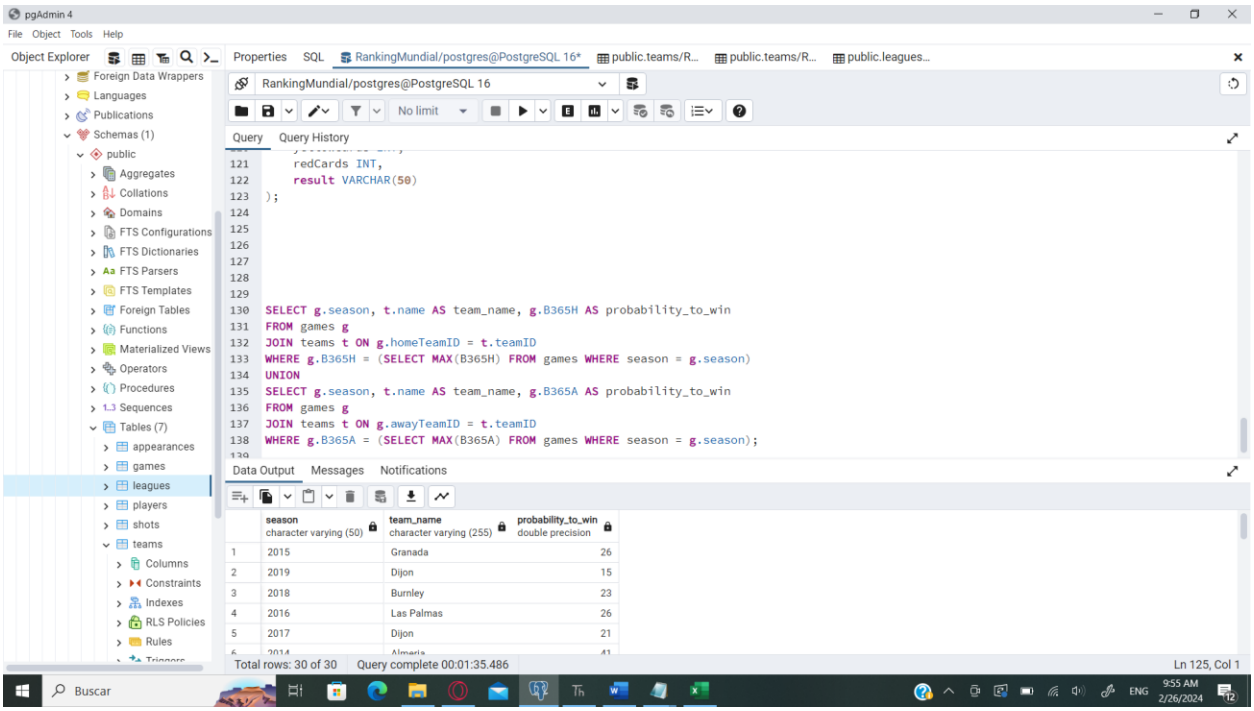
UNION

SELECT g.season, t.name AS team_name, g.B365A AS probability_to_win

FROM games g

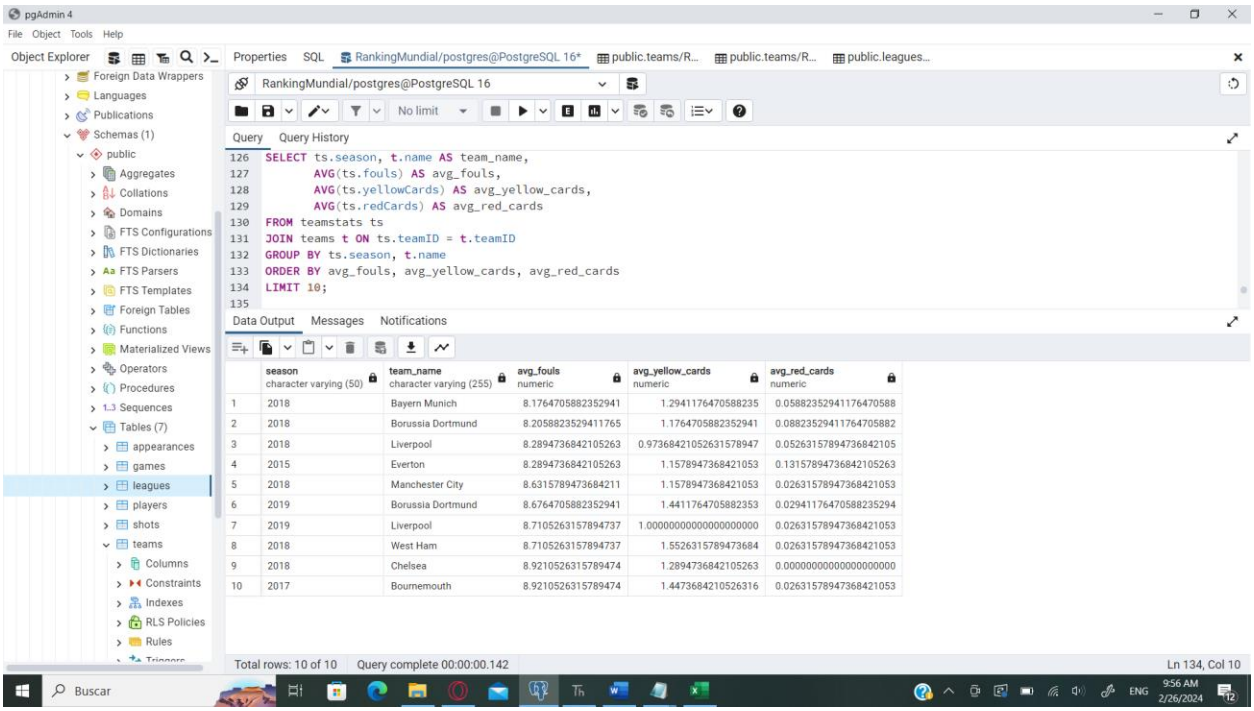
JOIN teams t ON g.awayTeamID = t.teamID

WHERE g.B365A = (SELECT MAX(B365A) FROM games WHERE season = g.season);

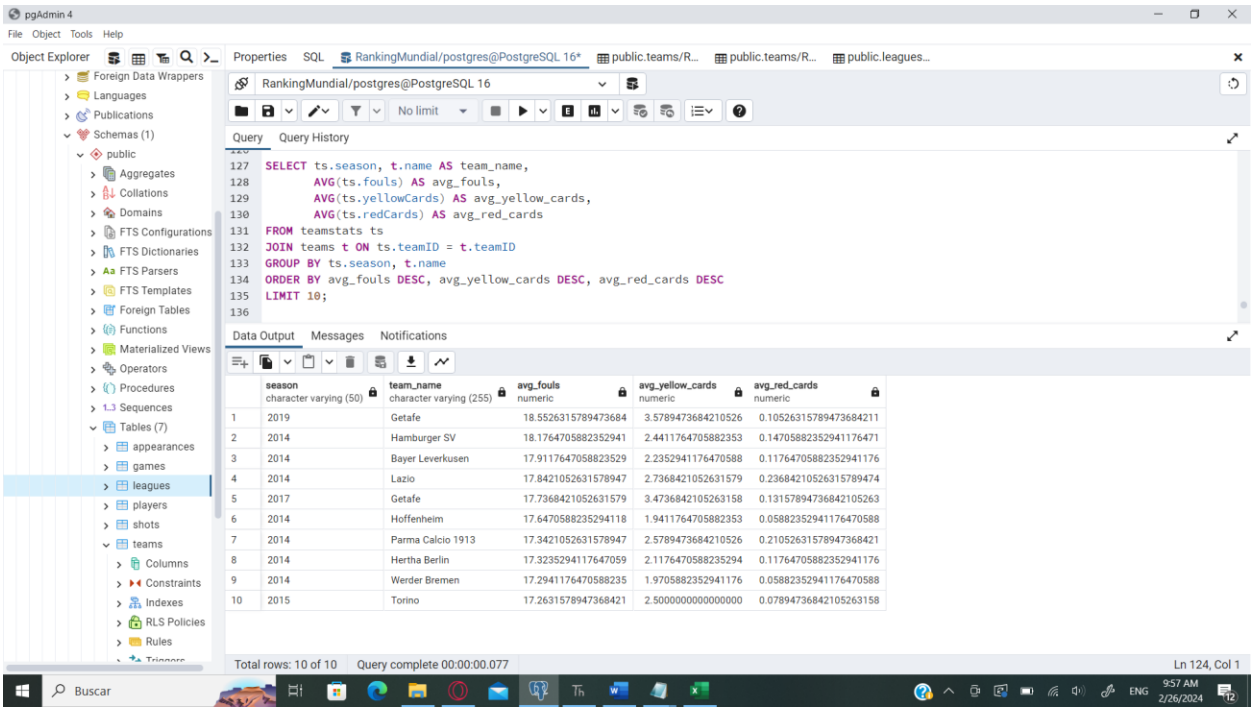


10. Obtenga el top 10 de estadísticas de los equipos más limpios en jugar (mejor faltas, menos tarjetas amarillas, menos tarjetas rojas) y también el top 10 de los equipos más sucios.

```
SELECT ts.season, t.name AS team_name,
    AVG(ts.fouls) AS avg_fouls,
    AVG(ts.yellowCards) AS avg_yellow_cards,
    AVG(ts.redCards) AS avg_red_cards
FROM teamstats ts
JOIN teams t ON ts.teamID = t.teamID
GROUP BY ts.season, t.name
ORDER BY avg_fouls, avg_yellow_cards, avg_red_cards
LIMIT 10;
```




```
SELECT ts.season, t.name AS team_name,
    AVG(ts.fouls) AS avg_fouls,
    AVG(ts.yellowCards) AS avg_yellow_cards,
    AVG(ts.redCards) AS avg_red_cards
FROM teamstats ts
JOIN teams t ON ts.teamID = t.teamID
GROUP BY ts.season, t.name
ORDER BY avg_fouls DESC, avg_yellow_cards DESC, avg_red_cards DESC
LIMIT 10;
```


pgAdmin 4
File Object Tools Help
Object Explorer
Properties SQL RankingMundial/postgres@PostgreSQL 16* public.teams/R... public.teams/R... public.leagues...
RankingMundial/postgres@PostgreSQL 16
No limit
Query Query History
SELECT ts.season, t.name AS team_name,
AVG(ts.fouls) AS avg_fouls,
AVG(ts.yellowCards) AS avg_yellow_cards,
AVG(ts.redCards) AS avg_red_cards
FROM teamstats ts
JOIN teams t ON ts.teamID = t.teamID
GROUP BY ts.season, t.name
ORDER BY avg_fouls DESC, avg_yellow_cards DESC, avg_red_cards DESC
LIMIT 10;
Data Output Messages Notifications
season character varying (50)
team_name character varying (255)
avg_fouls numeric
avg_yellow_cards numeric
avg_red_cards numeric
1 2019 Getafe 18.5526315789473684 3.5789473684210526 0.10526315789473684211
2 2014 Hamburger SV 18.1764705882352941 2.4411764705882353 0.14705882352941176471
3 2014 Bayer Leverkusen 17.9117647058823529 2.2352941176470588 0.11764705882352941176
4 2014 Lazio 17.8421052631578947 2.7368421052631579 0.23684210526315789474
5 2017 Getafe 17.7368421052631579 3.4736842105263158 0.13157894736842105263
6 2014 Hoffenheim 17.6470588235294118 1.9411764705882353 0.05882352941176470588
7 2014 Parma Calcio 1913 17.3421052631578947 2.5789473684210526 0.21052631578947368421
8 2014 Hertha Berlin 17.3235294117647059 2.1176470588235294 0.11764705882352941176
9 2014 Werder Bremen 17.2941176470588235 1.9705882352941176 0.05882352941176470588
10 2015 Torino 17.2631578947368421 2.5000000000000000 0.07894736842105263158
Total rows: 10 of 10
Query complete 00:00:00.077
Ln 124, Col 1
Buscar
ENG
9:57 AM
2/26/2024