

UNIVERSIDAD DEL VALLE DE GUATEMALA

CC3088 - Base de Datos

Sección 11



Proyecto

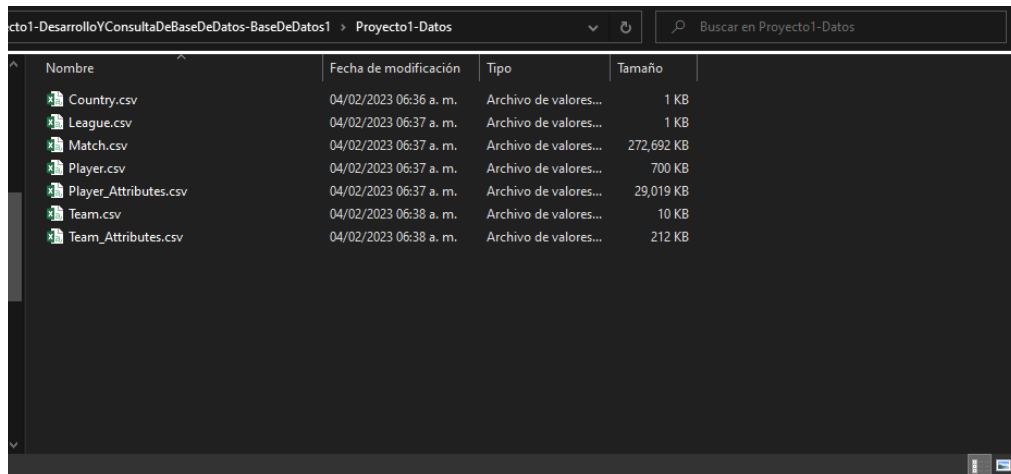
Cristopher Jose Rodolfo Barrios Solis - 18207

GUATEMALA, 6 de marzo de 2023

Etapas 1

En la etapa 1 se encargará de procesar los archivos CSV proporcionados y levantarlos en una base de datos PostgreSQL donde pueda ejecutar sus queries para análisis. Para esto deberá:

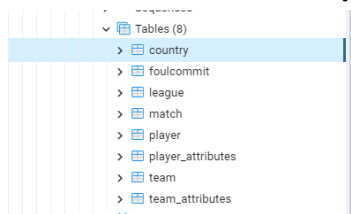
1. Descargar los archivos CSV y verificar qué información se incluye en cada uno



A screenshot of a file explorer window titled 'Proyecto1-Datos'. It shows a list of CSV files with columns for 'Nombre', 'Fecha de modificación', 'Tipo', and 'Tamaño'. The files are: Country.csv (1 KB), League.csv (1 KB), Match.csv (272,692 KB), Player.csv (700 KB), Player_Attributes.csv (29,019 KB), Team.csv (10 KB), and Team_Attributes.csv (212 KB). All files were modified on 04/02/2023 at 06:37 a.m. except for Team.csv and Team_Attributes.csv which were modified at 06:38 a.m.

Nombre	Fecha de modificación	Tipo	Tamaño
Country.csv	04/02/2023 06:36 a. m.	Archivo de valores...	1 KB
League.csv	04/02/2023 06:37 a. m.	Archivo de valores...	1 KB
Match.csv	04/02/2023 06:37 a. m.	Archivo de valores...	272,692 KB
Player.csv	04/02/2023 06:37 a. m.	Archivo de valores...	700 KB
Player_Attributes.csv	04/02/2023 06:37 a. m.	Archivo de valores...	29,019 KB
Team.csv	04/02/2023 06:38 a. m.	Archivo de valores...	10 KB
Team_Attributes.csv	04/02/2023 06:38 a. m.	Archivo de valores...	212 KB

2. Crear la base de datos y las tablas en donde almacenará los datos



```
CREATE TABLE country (
    id INT PRIMARY KEY,
    name VARCHAR(50)
);

CREATE TABLE league (
    id INT PRIMARY KEY,
    country_id INT,
    name VARCHAR(50),
    FOREIGN KEY (country_id) REFERENCES country(id)
);

CREATE TABLE match (
    id INT PRIMARY KEY,
    country_id INT,
    league_id INT,
    season VARCHAR(50),
    stage INT,
    date DATE,
    match_api_id INT,
```

```
home_team_api_id INT,  
away_team_api_id INT,  
home_team_goal INT,  
away_team_goal INT,  
home_player_X1 INT,  
home_player_X2 INT,  
home_player_X3 INT,  
home_player_X4 INT,  
home_player_X5 INT,  
home_player_X6 INT,  
home_player_X7 INT,  
home_player_X8 INT,  
home_player_X9 INT,  
home_player_X10 INT,  
home_player_X11 INT,  
away_player_X1 INT,  
away_player_X2 INT,  
away_player_X3 INT,  
away_player_X4 INT,  
away_player_X5 INT,  
away_player_X6 INT,  
away_player_X7 INT,  
away_player_X8 INT,  
away_player_X9 INT,  
away_player_X10 INT,  
away_player_X11 INT,  
home_player_Y1 INT,  
home_player_Y2 INT,  
home_player_Y3 INT,  
home_player_Y4 INT,  
home_player_Y5 INT,  
home_player_Y6 INT,  
home_player_Y7 INT,  
home_player_Y8 INT,  
home_player_Y9 INT,  
home_player_Y10 INT,  
home_player_Y11 INT,  
away_player_Y1 INT,  
away_player_Y2 INT,  
away_player_Y3 INT,  
away_player_Y4 INT,  
away_player_Y5 INT,  
away_player_Y6 INT,
```

```
away_player_Y7 INT,  
away_player_Y8 INT,  
away_player_Y9 INT,  
away_player_Y10 INT,  
away_player_Y11 INT,  
home_player_1 INT,  
home_player_2 INT,  
home_player_3 INT,  
home_player_4 INT,  
home_player_5 INT,  
home_player_6 INT,  
home_player_7 INT,  
home_player_8 INT,  
home_player_9 INT,  
home_player_10 INT,  
home_player_11 INT,  
away_player_1 INT,  
away_player_2 INT,  
away_player_3 INT,  
away_player_4 INT,  
away_player_5 INT,  
away_player_6 INT,  
away_player_7 INT,  
away_player_8 INT,  
away_player_9 INT,  
away_player_10 INT,  
away_player_11 INT,  
goal TEXT,  
shoton TEXT,  
shotoff TEXT,  
foulcommit TEXT,  
card TEXT,  
"cross" TEXT,  
corner TEXT,  
possession TEXT,  
B365H FLOAT,  
B365D FLOAT,  
B365A FLOAT,  
BWH FLOAT,  
BWD FLOAT,  
BWA FLOAT,  
IWH FLOAT,  
IWD FLOAT,
```

```
IWA FLOAT,  
LBH FLOAT,  
LBD FLOAT,  
LBA FLOAT,  
PSH FLOAT,  
PSD FLOAT,  
PSA FLOAT,  
WHH FLOAT,  
WHD FLOAT,  
WHA FLOAT,  
SJH FLOAT,  
SJD FLOAT,  
SJA FLOAT,  
VCH FLOAT,  
VCD FLOAT,  
VCA FLOAT,  
GBH FLOAT,  
GBD FLOAT,  
GBA FLOAT,  
BSH FLOAT,  
BSD FLOAT,  
BSA FLOAT,  
FOREIGN KEY (country_id) REFERENCES country(id),  
FOREIGN KEY (league_id) REFERENCES league(id)  
);
```

```
CREATE TABLE player_attributes (  
    id INT PRIMARY KEY,  
    player_fifa_api_id INT,  
    player_api_id INT,  
    date DATE,  
    overall_rating INT,  
    potential INT,  
    preferred_foot VARCHAR(50),  
    attacking_work_rate VARCHAR(50),  
    defensive_work_rate VARCHAR(50),  
    crossing INT,  
    finishing INT,  
    heading_accuracy INT,  
    short_passing INT,  
    volleys INT,  
    dribbling INT,  
    curve INT,
```

```
    free_kick_accuracy INT,
    long_passing INT,
    ball_control INT,
    acceleration INT,
    sprint_speed INT,
    agility INT,
    reactions INT,
    balance INT,
    shot_power INT,
    jumping INT,
    stamina INT,
    strength INT,
    long_shots INT,
    aggression INT,
    interceptions INT,
    positioning INT,
    vision INT,
    penalties INT,
    marking INT,
    standing_tackle INT,
    sliding_tackle INT,
    gk_diving INT,
    gk_handling INT,
    gk_kicking INT,
    gk_positioning INT,
    gk_reflexes INT
);

CREATE TABLE player (
    id INT PRIMARY KEY,
    player_api_id INT,
    player_name VARCHAR(50),
    player_fifa_api_id INT,
    birthday DATE,
    height FLOAT,
    weight INT
);

CREATE TABLE team_attributes (
    id INT PRIMARY KEY,
    team_fifa_api_id INT,
    team_api_id INT,
    date DATE,
```

```
buildUpPlaySpeed INT,  
buildUpPlaySpeedClass VARCHAR(50),  
buildUpPlayDribbling INT,  
buildUpPlayDribblingClass VARCHAR(50),  
buildUpPlayPassing INT,  
buildUpPlayPassingClass VARCHAR(50),  
buildUpPlayPositioningClass VARCHAR(50),  
chanceCreationPassing INT,  
chanceCreationPassingClass VARCHAR(50),  
chanceCreationCrossing INT,  
chanceCreationCrossingClass VARCHAR(50),  
chanceCreationShooting INT,  
chanceCreationShootingClass VARCHAR(50),  
chanceCreationPositioningClass VARCHAR(50),  
defencePressure INT,  
defencePressureClass VARCHAR(50),  
defenceAggression INT,  
defenceAggressionClass VARCHAR(50),  
defenceTeamWidth INT,  
defenceTeamWidthClass VARCHAR(50),  
defenceDefenderLineClass VARCHAR(50)
```

```
);
```

```
CREATE TABLE team (  
    id INT PRIMARY KEY,  
    team_api_id INT,  
    team_fifa_api_id INT,  
    team_long_name VARCHAR(50),  
    team_short_name VARCHAR(50)
```

```
);
```

```
-----  
-----NUEVAS-TABLAS-----  
-----
```

```
CREATE TABLE foulcommit (  
    id INT,  
    foulscommitted INT,  
    event_incident_typefk INT,  
    elapsed INT,  
    player2 INT,  
    subtype TEXT,  
    player1 INT,
```

```
sortorder INT,  
team INT,  
n INT,  
type TEXT  
);
```

3. Desarrollar un script de Python (o lenguaje a su elección) que pueda leer la información de los archivos CSV, conectarse a su base de datos y alimentar la información en las tablas creadas.

```
def csvToPostgre():  
    '''Funcion que convierte los datos que estan en .csv a la base de  
    datos llamada proyecto1 en postgree,  
    Toma los datos que estan en la primera fila con el fin de  
    insertarlos en sus respectivas columnas,  
    La tabla tiene que estar ya creada o de lo contrario hbra un error  
    '''  
    FileName = input("\n\n\tEnter DATA File Name: ")  
    print("\n\n\tStart loading File: " + FileName + ".csv")  
  
    filePath = "Proyecto1-Datos/" + FileName + ".csv"#ubicacion de los  
csv  
    df = pd.read_csv(filePath)# lee el csv  
    df = df.replace({pd.np.nan: None})#manejo correcto de lo valores  
nulos  
  
    # coneccion con postgre  
    conn = psycopg2.connect(  
        database = 'proyecto1', user='postgres', password='1234567',  
host='127.0.0.1', port='5432'  
    )  
    print(len(list(df.columns)))  
  
    #Agrupamos las columnas y los valores a insertar  
    indices = ""  
    valu = ""  
    for a in df.columns:  
        if a == "cross":#uno de los nombres de las columnas coincide  
con la programacion en sql y genera error, esto es para evitarlo  
            a = "'" + a + "'"   
            indices += " " + a + ", "#las columnas a insertar  
            valu += "%s,"#cantidad de la valores a insertar  
  
    indices=indices[:-1]
```



```
valu=valu[:-1]

cursor = conn.cursor()

cursor.execute("select version()")
count = 0

for row in df.itertuples(index=False):
    count = count+1
    print(str(count)+" ==> "+str(row))

columnas = list(row)
if FileName == "Match":
    if columnas[80] != None:
        foulcommit = columnas[80]
        # print("-----")
        #print(foulcommit)
        valFoucommit(foulcommit)
        #print("-----")
    new_insert = (columnas)#valores del csv que se quieren insertar
    cursor.execute("INSERT INTO public."+FileName+"("+indices+")
VALUES ('+valu+');", new_insert)#usamos sql

conn.commit()
conn.close()#cerramos la base de datos
```

Etapas 2

En la etapa 2 usted ejecutará algunas queries que le permitan familiarizarse con el modelo de datos presentado.

Para esto deberá obtener lo siguiente:

Según estadísticas:

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).

Query:

```

1 SELECT name as liga, season, team_long_name, COUNT(*) as cantidad
2 FROM (
3   SELECT league_id, season, home_team_api_id
4   FROM match
5   UNION ALL
6   SELECT league_id, season, away_team_api_id
7   FROM match) as equipo_partido
8 inner join team
9 on equipo_partido.home_team_api_id = team.team_api_id
10 inner join league
11 on equipo_partido.league_id = league.id
12 GROUP BY name, season, team_long_name;

```

liga	season	team_long_name	cantidad_juegos	
1	Belgium Jupiler League	2008/2009	Beerschot AC	34
2	Belgium Jupiler League	2008/2009	Club Brugge KV	34
3	Belgium Jupiler League	2008/2009	FCV Dender EH	34
4	Belgium Jupiler League	2008/2009	KAA Gent	34
5	Belgium Jupiler League	2008/2009	KRC Genk	34
6	Belgium Jupiler League	2008/2009	KSV Cercle Brugge	34
7	Belgium Jupiler League	2008/2009	KSV Roeselare	34
8	Belgium Jupiler League	2008/2009	KV Kortrijk	34
9	Belgium Jupiler League	2008/2009	KV Mechelen	34
10	Belgium Jupiler League	2008/2009	KVC Westerlo	34
11	Belgium Jupiler League	2008/2009	RAEC Mons	34
12	Belgium Jupiler League	2008/2009	Royal Excel Mouscron	34
13	Belgium Jupiler League	2008/2009	RSC Anderlecht	34
14	Belgium Jupiler League	2008/2009	Sporting Charleroi	34
15	Belgium Jupiler League	2008/2009	Sporting Lokeren	34
16	Belgium Jupiler League	2008/2009	Standard de Liège	34
17	Belgium Jupiler League	2008/2009	SV Zulte-Waregem	34
18	Belgium Jupiler League	2008/2009	Tubize	34

Total rows: 1000 of 1478 Query complete 00:00:00.490 Ln 12, Col 39

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

Hint: Obtenga la cantidad de goles a favor, goles en contra y la diferencia entre las dos anteriores, esto por cada temporada y por cada equipo de cada liga.

Query:

```

1 SELECT name as liga, season, equipo, team_long_name,
2 SUM(goles_favor) AS goles_favor, SUM(goles_contra) AS goles_contra, SUM(goles_favor) - SUM(goles_contra) AS diferencia
3 FROM (
4   SELECT league_id, season, home_team_api_id AS equipo, home_team_goal AS goles_favor, away_team_goal AS goles_contra
5   FROM match
6   UNION ALL
7   SELECT league_id, season, away_team_api_id AS equipo, away_team_goal AS goles_favor, home_team_goal AS goles_contra
8   FROM match
9 ) as equipo_partido
10 inner join team
11 on equipo_partido.equipo = team.team_api_id
12 inner join league
13 on equipo_partido.league_id = league.id
14 GROUP BY liga, season, equipo, team_long_name
15 ORDER BY diferencia DESC
16 LIMIT 1;

```

liga	season	equipo	team_long_name	goles_favor	goles_contra	diferencia	
1	Spain LIGA BBVA	2011/2012	8633	Real Madrid CF	121	32	89

Utilizando este mismo query, obtenga el ranking de los equipos por temporada y por liga, ordenados por ese ranking de manera descendente por diferencia (utilice la función Rank () over patition), para obtener el equipo ganador (la respuesta es obvia).

```

1 SELECT name as liga, season, equipo, team.team_long_name,
2 SUM(goles_favor) AS goles_favor, SUM(goles_contra) AS goles_contra,
3 SUM(goles_favor) - SUM(goles_contra) AS diferencia,
4 RANK() OVER (PARTITION BY name, season ORDER BY SUM(goles_favor) - SUM(goles_contra) DESC) AS ranking
5 FROM (
6 SELECT league_id, season, home_team_api_id AS equipo, home_team_goal AS goles_favor, away_team_goal AS goles_contra
7 FROM match
8 UNION ALL
9 SELECT league_id, season, away_team_api_id AS equipo, away_team_goal AS goles_favor, home_team_goal AS goles_contra
10 FROM match
11 ) as equipo_partido
12 inner join team
13 on equipo_partido.equipo = team.team_api_id
14 inner join league
15 on equipo_partido.league_id = league.id
16 GROUP BY liga, season, equipo, team.team_long_name
17 ORDER BY liga, season, ranking;

```

liga	season	equipo	team_long_name	goles_favor	goles_contra	diferencia	ranking
Belgium Jupiler League	2008/2009	8635	RSC Anderlecht	75	30	45	1
Belgium Jupiler League	2008/2009	9985	Standard de Liège	66	26	40	2
Belgium Jupiler League	2008/2009	9991	KAA Gent	67	42	25	3
Belgium Jupiler League	2008/2009	10000	SV Zulte-Waregem	55	36	19	4
Belgium Jupiler League	2008/2009	8342	Club Brugge KV	59	50	9	5
Belgium Jupiler League	2008/2009	9994	Sporting Lokeren	40	32	8	6
Belgium Jupiler League	2008/2009	10001	KVC Westerlo	42	38	4	7
Belgium Jupiler League	2008/2009	9993	Beerschot AC	44	42	2	8
Belgium Jupiler League	2008/2009	9987	KRC Genk	48	51	-3	9
Belgium Jupiler League	2008/2009	9986	Sporting Charleroi	43	48	-5	10
Belgium Jupiler League	2008/2009	9984	KSV Cercle Brugge	48	53	-5	10
Belgium Jupiler League	2008/2009	8203	KV Mechelen	46	52	-6	12
Belgium Jupiler League	2008/2009	9996	Royal Excel Mouscron	42	49	-7	13
Belgium Jupiler League	2008/2009	7947	FCV Dender EH	44	58	-14	14
Belgium Jupiler League	2008/2009	8571	KV Kortrijk	37	55	-18	15
Belgium Jupiler League	2008/2009	9998	RAEC Mons	31	57	-26	16
Belgium Jupiler League	2008/2009	9999	KSV Roeselare	33	59	-26	16
Belgium Jupiler League	2008/2009	4049	Tubize	35	77	-42	18

Según apuestas:

3. Realice un promedio de las probabilidades de todas las casas de apuesta por temporada, liga y equipo (elimine aquellos equipos que no tienen estadísticas en ninguna casa de apuesta (casas de apuesta como B36, IW, LB, PSH, etc)).

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Query Query History

```
1 SELECT match.season, league.name, team.team_long_name,  
2 AVG(B365H) AS avg_B365H, AVG(B365D) AS avg_B365D, AVG(B365A) AS avg_B365A,  
3 AVG(BWH) AS avg_BWH, AVG(BWD) AS avg_BWD, AVG(BWA) AS avg_BWA,  
4 AVG(IWH) AS avg_IWH, AVG(IWD) AS avg_IWD, AVG(IWA) AS avg_IWA,  
5 AVG(LBH) AS avg_LBH, AVG(LBD) AS avg_LBD, AVG(LBA) AS avg_LBA,  
6 AVG(PSH) AS avg_PSH, AVG(PSD) AS avg_PSD, AVG(PSA) AS avg_PSA,  
7 AVG(WHH) AS avg_WHH, AVG(WHD) AS avg_WHD, AVG(WHA) AS avg_WHA,  
8 AVG(SJH) AS avg_SJH, AVG(SJD) AS avg_SJD, AVG(SJA) AS avg_SJA,  
9 AVG(VCH) AS avg_VCH, AVG(VCD) AS avg_VCD, AVG(VCA) AS avg_VCA,  
10 AVG(GBH) AS avg_GBH, AVG(GBD) AS avg_GBD, AVG(GBA) AS avg_GBA,  
11 AVG(BSH) AS avg_BSH, AVG(BSD) AS avg_BSD, AVG(BSA) AS avg_BSA  
12 FROM match  
13 JOIN league ON match.league_id = league.id  
14 JOIN team ON match.home_team_api_id = team.team_api_id  
15 LEFT JOIN (  
16 SELECT DISTINCT home_team_api_id  
17 FROM match  
18 WHERE B365H IS NOT NULL  
19 UNION  
20 SELECT DISTINCT away_team_api_id  
21 FROM match  
22 WHERE B365H IS NOT NULL  
23 ) AS teams_with_odds ON team.team_api_id = teams_with_odds.home_team_api_id  
24 WHERE teams_with_odds.home_team_api_id IS NOT NULL  
25 GROUP BY match.season, league.name, team.team_long_name  
26 ORDER BY match.season, league.name, team.team_long_name;
```

pgAdmin 4

Dashboard Properties SQL Statistics Dependencies Dependents Processes project1/postgres@PostgreSQL 15*

Query Query History ... Scratch Pad Data Output Messages Notifications

		season	name	team_long_name	avg_b365h	avg_b365d	avg_b365a	avg_bwh
		character varying (50)	character varying (50)	character varying (50)	double precision	double precision	double precision	double precision
1	AVG(B365H)	1	2008/2009	Belgium Jupiler League	Beerschot AC	2.218125	3.4187499999999997	3.740625
2	AVG(BWH)	2	2008/2009	Belgium Jupiler League	Club Brugge KV	1.58	4.158823529411765	6.651176470588235
3	AVG(IWH)	3	2008/2009	Belgium Jupiler League	FCV Dender EH	3.058235294117647	3.4264705882352935	2.7952941176470585
4	AVG(LBH)	4	2008/2009	Belgium Jupiler League	KAA Gent	1.8694117647058823	3.8588235294117647	5.589411764705883
5	AVG(PSH)	5	2008/2009	Belgium Jupiler League	KRC Genk	2.0882352941176467	3.9458823529411764	5.737647058823531
6	AVG(WHH)	6	2008/2009	Belgium Jupiler League	KSV Cercle Brugge	1.9606250000000003	3.59875	4.68125
7	AVG(SJH)	7	2008/2009	Belgium Jupiler League	KSV Roeselare	3.2370588235294124	3.43235294117647	2.5888235294117647
8	AVG(VCH)	8	2008/2009	Belgium Jupiler League	KV Kortrijk	2.777647058823529	3.4088235294117646	2.979411764705882
9	AVG(GBH)	9	2008/2009	Belgium Jupiler League	KV Mechelen	2.6005882352941176	3.379411764705882	3.181176470588235
10	AVG(BSH)	10	2008/2009	Belgium Jupiler League	KVC Westerlo	2.250588235294118	3.432352941176471	3.690588235294118
11	WHERE B365H IS	11	2008/2009	Belgium Jupiler League	RAEC Mons	3.0674999999999994	3.353125	2.7075
12	UNION	12	2008/2009	Belgium Jupiler League	Royal Excel Mouscron	2.6652941176470586	3.3852941176470583	3.3052941176470587
13	SELECT DISTINCT	13	2008/2009	Belgium Jupiler League	RSC Anderlecht	1.4235294117647057	4.684705882352941	8.823529411764707
14	FROM match	14	2008/2009	Belgium Jupiler League	Sporting Charleroi	2.371764705882353	3.4547058823529406	3.7399999999999998
15	WHERE B365H IS	15	2008/2009	Belgium Jupiler League	Sporting Lokeren	2.3652941176470588	3.3323529411764707	3.3676470588235294
16	AS teams_with_od	16	2008/2009	Belgium Jupiler League	Standard de Liège	1.3682352941176472	4.821176470588235	9.052941176470588
17	WHERE teams_with_o	17	2008/2009	Belgium Jupiler League	SV Zulte-Waregem	2.374117647058824	3.437058823529412	3.8470588235294123
18	GROUP BY match.sea	18	2008/2009	Belgium Jupiler League	Tubize	4.408235294117647	3.576411764705882	7.077647058823529
19	ORDER BY match.sea	19	2008/2009	Belgium Jupiler League	Tubize	4.408235294117647	3.576411764705882	7.077647058823529

Total rows: 1000 of 1273 Query complete 00:00:00.731 Ln 1, Col 8

pgAdmin 4

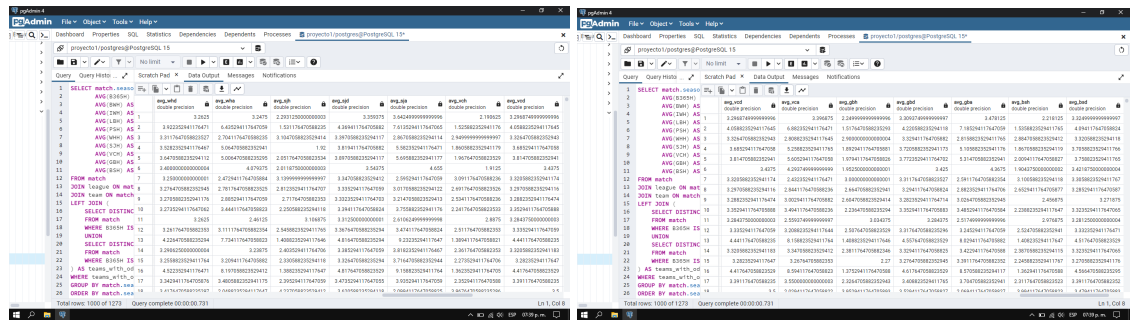
Dashboard Properties SQL Statistics Dependencies Dependents Processes project1/postgres@PostgreSQL 15*

Query Query History ... Scratch Pad Data Output Messages Notifications

		avg_b365h	avg_b365d	avg_b365a	avg_bwh	avg_iwh	avg_lbh	avg_psh	avg_wbh	avg_sjh	avg_vch	avg_gbh	avg_bsh
		double precision	double precision	double precision	double precision	double precision	double precision	double precision	double precision	double precision	double precision	double precision	double precision
1	AVG(B365H)	2.218125	3.4187499999999997	3.740625	6.651176470588235	2.7952941176470585	5.589411764705883	1.8576470588235294	1.9888235294117647	3.058235294117647	3.4264705882352935	2.979411764705882	3.181176470588235
2	AVG(BWH)	1.58	4.158823529411765	6.651176470588235	1.5035294117647059	2.964705882352941	1.8576470588235294	1.9888235294117647	3.058235294117647	3.4264705882352935	2.979411764705882	3.181176470588235	3.3052941176470587
3	AVG(IWH)	3.058235294117647	3.4264705882352935	2.7952941176470585	5.589411764705883	1.8576470588235294	1.9888235294117647	3.058235294117647	3.4264705882352935	2.979411764705882	3.181176470588235	3.3052941176470587	3.432352941176471
4	AVG(LBH)	1.8694117647058823	3.8588235294117647	5.589411764705883	1.8576470588235294	1.9888235294117647	3.058235294117647	3.4264705882352935	2.979411764705882	3.181176470588235	3.3052941176470587	3.432352941176471	3.690588235294118
5	AVG(PSH)	2.0882352941176467	3.9458823529411764	5.737647058823531	1.9888235294117647	3.058235294117647	3.4264705882352935	2.979411764705882	3.181176470588235	3.3052941176470587	3.432352941176471	3.690588235294118	2.2264705882352941
6	AVG(WHH)	1.9606250000000003	3.59875	4.68125	2.5264705882352941	2.7075	3.0749999999999998	2.3294117647058823	2.979411764705882	3.181176470588235	3.3052941176470587	3.432352941176471	3.690588235294118
7	AVG(SJH)	3.2370588235294124	3.43235294117647	2.5888235294117647	3.0656250000000003	2.6823529411764706	2.6823529411764706	2.6823529411764706	2.6823529411764706	2.6823529411764706	2.6823529411764706	2.6823529411764706	2.6823529411764706
8	AVG(VCH)	2.777647058823529	3.4088235294117646	2.979411764705882	3.181176470588235	3.3052941176470587	3.432352941176471	3.690588235294118	2.2264705882352941	2.2264705882352941	2.2264705882352941	2.2264705882352941	2.2264705882352941
9	AVG(GBH)	2.0882352941176467	3.9458823529411764	5.737647058823531	1.9888235294117647	3.058235294117647	3.4264705882352935	2.979411764705882	3.181176470588235	3.3052941176470587	3.432352941176471	3.690588235294118	2.2264705882352941
10	AVG(BSH)	1.9606250000000003	3.59875	4.68125	2.5264705882352941	2.7075	3.0749999999999998	2.3294117647058823	2.979411764705882	3.181176470588235	3.3052941176470587	3.432352941176471	3.690588235294118
11	WHERE B365H IS	3.0674999999999994	3.353125	2.7075	3.0749999999999998	2.3294117647058823	2.979411764705882	3.181176470588235	3.3052941176470587	3.432352941176471	3.690588235294118	2.2264705882352941	2.2264705882352941
12	UNION	2.6652941176470586	3.3852941176470583	3.3052941176470587	3.432352941176471	3.690588235294118	2.2264705882352941	2.2264705882352941	2.2264705882352941	2.2264705882352941	2.2264705882352941	2.2264705882352941	2.2264705882352941
13	SELECT DISTINCT	1.4235294117647057	4.684705882352941	8.823529411764707	1.3805882352941176	1.3805882352941176	1.3805882352941176	1.3805882352941176	1.3805882352941176	1.3805882352941176	1.3805882352941176	1.3805882352941176	1.3805882352941176
14	FROM match	2.371764705882353	3.4547058823529406	3.7399999999999998	2.3294117647058823	2.3294117647058823	2.3294117647058823	2.3294117647058823	2.3294117647058823	2.3294117647058823	2.3294117647058823	2.3294117647058823	2.3294117647058823
15	WHERE B365H IS	2.3652941176470588	3.3323529411764707	3.3676470588235294	2.2900000000000002	2.2900000000000002	2.2900000000000002	2.2900000000000002	2.2900000000000002	2.2900000000000002	2.2900000000000002	2.2900000000000002	2.2900000000000002
16	AS teams_with_od	1.3682352941176472	4.821176470588235	9.052941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588
17	WHERE teams_with_o	2.374117647058824	3.437058823529412	3.8470588235294123	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588
18	GROUP BY match.sea	2.374117647058824	3.437058823529412	3.8470588235294123	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588
19	ORDER BY match.sea	2.374117647058824	3.437058823529412	3.8470588235294123	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588	1.3652941176470588

Total rows: 1000 of 1273 Query complete 00:00:00.731 Ln 1, Col 8

Cristopher Jose Rodolfo Barrios Solis - 18207



The left screenshot shows a SQL query in pgAdmin 4. The query is as follows:

```
1 SELECT match.season,
2       league.name,
3       team.team_long_name,
4       100 / AVG(B365D + B365D + B365A + BWH + BWD + BWA +
5       IWH + IWD + IWA + LBH + LBD + LBA +
6       PSH + PSD + PSA + WHH + WHD + WHA +
7       SJH + SJD + SJA + VCH + VCD + VCA +
8       GBH + GBD + GBA + BSH + BSD + BSA) AS avg_odds
9
10 FROM match
11
12 JOIN
13   league ON match.league_id = league.id
14
15 JOIN
16   team ON match.home_team_api_id = team.team_api_id
17
18 GROUP BY
19   match.season,
20   league.name,
21   team.team_long_name
22
23 HAVING 100 / AVG(B365H + B365D + B365A + BWH + BWD + BWA +
24   IWH + IWD + IWA + LBH + LBD + LBA +
25   PSH + PSD + PSA + WHH + WHD + WHA +
26   SJH + SJD + SJA + VCH + VCD + VCA +
27   GBH + GBD + GBA + BSH + BSD + BSA) IS NOT NULL
28
29 ORDER BY
30   avg_odds DESC
```

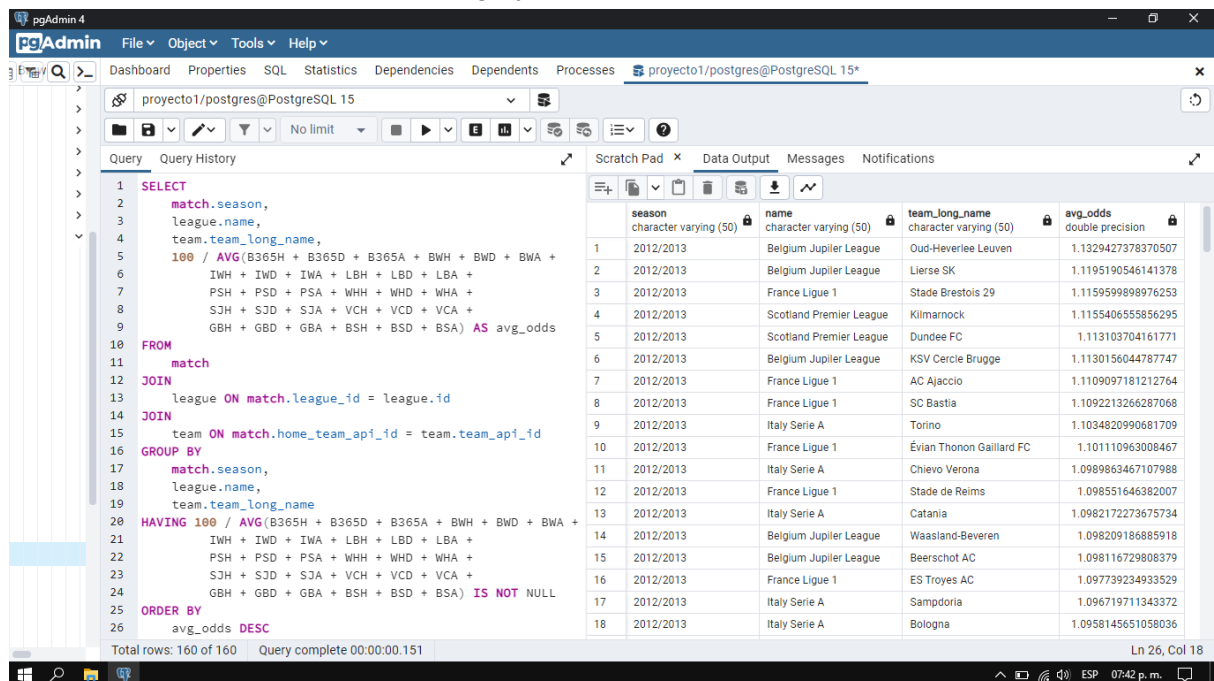
The right screenshot shows the results of the query. The columns are: season, league, team, and avg_odds. The results are sorted by avg_odds in descending order.

avg_odds
double precision
3.47125
6.629411764705882
2.71
5.216747058823529
5.165888235294118
4.369375
2.46
2.828823529411765
3.096625
3.485294117647058
2.499375
3.2023529411764704
7.769411764705882
3.3911764705882357
3.2947058823529415
8.476470588235294
3.647058823529412
7.916754117647058

4. ¿Quién es el mejor equipo de todas las ligas y de todas las temporadas según las apuestas? Observe la información dada en la siguientes páginas para poder interpretar las cuotas promedio para obtener las probabilidades:

- <https://www.apuestas-deportivas.es/calculadora-probabilidades-apuestas-deportivas/>
- <https://www.pasionamarilla.com/ud-laspalmas-noticias/como-se-calculan-las-probabilidades-en-las-apuestas-deportivas/>

Hint: Obtenga el promedio de todas las casas de apuesta por partido, y luego obtenga el promedio de estas por temporada, liga y equipo.



The screenshot shows the same SQL query as before, but with the results displayed in a table. The columns are: season, league, team, and avg_odds. The results are sorted by avg_odds in descending order.

season	league	team	avg_odds
2012/2013	Belgium Jupiler League	Oud-Heverlee Leuven	1.1329427378370507
2012/2013	Belgium Jupiler League	Lierse SK	1.1195190546141378
2012/2013	France Ligue 1	Stade Brestois 29	1.1159599899976253
2012/2013	Scotland Premier League	Kilmarnock	1.115540655856295
2012/2013	Scotland Premier League	Dundee FC	1.113103704161771
2012/2013	Belgium Jupiler League	KSV Cercle Brugge	1.1130156044787747
2012/2013	France Ligue 1	AC Ajaccio	1.1109097181212764
2012/2013	France Ligue 1	SC Bastia	1.1092213266287068
2012/2013	Italy Serie A	Torino	1.1034820990681709
2012/2013	France Ligue 1	Évian Thonon Gaillard FC	1.101110963008467
2012/2013	Italy Serie A	Chievo Verona	1.0989863467107988
2012/2013	France Ligue 1	Stade de Reims	1.098551646382007
2012/2013	Italy Serie A	Catania	1.0982172273675734
2012/2013	Belgium Jupiler League	Waasland-Beveren	1.098209186885918
2012/2013	Belgium Jupiler League	Beerschot AC	1.098116729808379
2012/2013	France Ligue 1	ES Troyes AC	1.097739234933529
2012/2013	Italy Serie A	Sampdoria	1.096719711343372
2012/2013	Italy Serie A	Bologna	1.0958145651058036

Otros:

5. ¿Quiénes son los jugadores de cada liga y cada temporada que tienen los mejores atributos – características de juego? ¿De acuerdo a este inciso y comparándolo con el inciso 2 y 4 anteriores, alguno de los jugadores más valiosos se encuentra dentro del mejor equipo?

The screenshot shows the pgAdmin 4 interface with a SQL query executed. The query selects player names and overall ratings for home and away players across different seasons and leagues. The results pane on the right shows a table with columns 'season' and 'rating', displaying data for seasons 2012/2013 and 2013/2013.

```

1 select m.season as temporada, l.name as liga,
2 m.home_player_1, hp1.player_name as name_home_player_1, pa1.overall_rating as home_player_1_rating,
3 m.home_player_2, hp2.player_name as name_home_player_2, pa2.overall_rating as home_player_2_rating,
4 m.home_player_3, hp3.player_name as name_home_player_3, pa3.overall_rating as home_player_3_rating,
5 m.home_player_4, hp4.player_name as name_home_player_4, pa4.overall_rating as home_player_4_rating,
6 m.home_player_5, hp5.player_name as name_home_player_5, pa5.overall_rating as home_player_5_rating,
7 m.home_player_6, hp6.player_name as name_home_player_6, pa6.overall_rating as home_player_6_rating,
8 m.home_player_7, hp7.player_name as name_home_player_7, pa7.overall_rating as home_player_7_rating,
9 m.home_player_8, hp8.player_name as name_home_player_8, pa8.overall_rating as home_player_8_rating,
10 m.home_player_9, hp9.player_name as name_home_player_9, pa9.overall_rating as home_player_9_rating,
11 m.home_player_10, hp10.player_name as name_home_player_10, pa10.overall_rating as home_player_10_rating,
12 m.home_player_11, hp11.player_name as name_home_player_11, pa11.overall_rating as home_player_11_rating,
13
14 m.away_player_1, ap1.player_name as name_away_player_1, apa1.overall_rating as away_player_1_rating,
15 m.away_player_2, ap2.player_name as name_away_player_2, apa2.overall_rating as away_player_2_rating,
16 m.away_player_3, ap3.player_name as name_away_player_3, apa3.overall_rating as away_player_3_rating,
17 m.away_player_4, ap4.player_name as name_away_player_4, apa4.overall_rating as away_player_4_rating,
18 m.away_player_5, ap5.player_name as name_away_player_5, apa5.overall_rating as away_player_5_rating,
19 m.away_player_6, ap6.player_name as name_away_player_6, apa6.overall_rating as away_player_6_rating,
20 m.away_player_7, ap7.player_name as name_away_player_7, apa7.overall_rating as away_player_7_rating,
21 m.away_player_8, ap8.player_name as name_away_player_8, apa8.overall_rating as away_player_8_rating,
22 m.away_player_9, ap9.player_name as name_away_player_9, apa9.overall_rating as away_player_9_rating,
23 m.away_player_10, ap10.player_name as name_away_player_10, apa10.overall_rating as away_player_10_rating,
24 m.away_player_11, ap11.player_name as name_away_player_11, apa11.overall_rating as away_player_11_rating
25
26 from match m

```

Total rows: 160 of 160 Waiting for the query to complete... 00:01:05.627 Ln 147, Col 28

The screenshot shows the pgAdmin 4 interface with a SQL query executed. The query joins player attributes with match data using LEFT JOINs. The results pane on the right shows a table with columns 'season' and 'rating', displaying data for seasons 2012/2013 and 2013/2013.

```

26 from match m
27 inner join league l
28 on m.league_id = l.id
29
30 LEFT JOIN player_attributes pa1 ON m.home_player_1 = pa1.player_api_id
31 LEFT JOIN player_attributes pa2 ON m.home_player_2 = pa2.player_api_id
32 LEFT JOIN player_attributes pa3 ON m.home_player_3 = pa3.player_api_id
33 LEFT JOIN player_attributes pa4 ON m.home_player_4 = pa4.player_api_id
34 LEFT JOIN player_attributes pa5 ON m.home_player_5 = pa5.player_api_id
35 LEFT JOIN player_attributes pa6 ON m.home_player_6 = pa6.player_api_id
36 LEFT JOIN player_attributes pa7 ON m.home_player_7 = pa7.player_api_id
37 LEFT JOIN player_attributes pa8 ON m.home_player_8 = pa8.player_api_id
38 LEFT JOIN player_attributes pa9 ON m.home_player_9 = pa9.player_api_id
39 LEFT JOIN player_attributes pa10 ON m.home_player_10 = pa10.player_api_id
40 LEFT JOIN player_attributes pa11 ON m.home_player_11 = pa11.player_api_id
41
42 LEFT JOIN player_attributes apa1 ON m.away_player_1 = apa1.player_api_id
43 LEFT JOIN player_attributes apa2 ON m.away_player_2 = apa2.player_api_id
44 LEFT JOIN player_attributes apa3 ON m.away_player_3 = apa3.player_api_id
45 LEFT JOIN player_attributes apa4 ON m.away_player_4 = apa4.player_api_id
46 LEFT JOIN player_attributes apa5 ON m.away_player_5 = apa5.player_api_id
47 LEFT JOIN player_attributes apa6 ON m.away_player_6 = apa6.player_api_id
48 LEFT JOIN player_attributes apa7 ON m.away_player_7 = apa7.player_api_id
49 LEFT JOIN player_attributes apa8 ON m.away_player_8 = apa8.player_api_id
50 LEFT JOIN player_attributes apa9 ON m.away_player_9 = apa9.player_api_id
51 LEFT JOIN player_attributes apa10 ON m.away_player_10 = apa10.player_api_id

```

Total rows: 160 of 160 Waiting for the query to complete... 00:01:24.034 Ln 147, Col 28

pgAdmin 4 interface showing a SQL query in the Query editor. The query is a complex JOIN statement involving player attributes and home/away players. The Data Output pane on the right displays the results of the query, showing a table with 18 rows and 2 columns: 'temporada' and 'character varying (50)'. The status bar indicates 'Total rows: 1000 of 10742672' and 'Query complete 00:01:41.992'.

```
51 LEFT JOIN player_attributes apa10 ON m.away_player_10 = apa10.player_api_id
52 LEFT JOIN player_attributes apa11 ON m.away_player_11 = apa11.player_api_id
53
54 left join player hp1
55 on m.home_player_1 = hp1.player_api_id
56 left join player hp2
57 on m.home_player_2 = hp2.player_api_id
58 left join player hp3
59 on m.home_player_3 = hp3.player_api_id
60 left join player hp4
61 on m.home_player_4 = hp4.player_api_id
62 left join player hp5
63 on m.home_player_5 = hp5.player_api_id
64 left join player hp6
65 on m.home_player_6 = hp6.player_api_id
66 left join player hp7
67 on m.home_player_7 = hp7.player_api_id
68 left join player hp8
69 on m.home_player_8 = hp8.player_api_id
70 left join player hp9
71 on m.home_player_9 = hp9.player_api_id
72 left join player hp10
73 on m.home_player_10 = hp10.player_api_id
74 left join player hp11
75 on m.home_player_11 = hp11.player_api_id
76
```

temporada	character varying (50)
1	2012/2013
2	2012/2013
3	2012/2013
4	2012/2013
5	2012/2013
6	2012/2013
7	2012/2013
8	2012/2013
9	2012/2013
10	2012/2013
11	2012/2013
12	2012/2013
13	2012/2013
14	2012/2013
15	2012/2013
16	2012/2013
17	2012/2013
18	2012/2013

Total rows: 1000 of 10742672 Query complete 00:01:41.992 Ln 147, Col 28

pgAdmin 4 interface showing a SQL query in the Query editor. The query is a complex JOIN statement involving player attributes and away players, followed by a WHERE clause filtering by overall rating. The Data Output pane on the right displays the results of the query, showing a table with 18 rows and 2 columns: 'temporada' and 'character varying (50)'. The status bar indicates 'Total rows: 1000 of 10742672' and 'Query complete 00:01:41.992'.

```
76
77 left join player ap1
78 on m.away_player_1 = ap1.player_api_id
79 left join player ap2
80 on m.away_player_2 = ap2.player_api_id
81 left join player ap3
82 on m.away_player_3 = ap3.player_api_id
83 left join player ap4
84 on m.away_player_4 = ap4.player_api_id
85 left join player ap5
86 on m.away_player_5 = ap5.player_api_id
87 left join player ap6
88 on m.away_player_6 = ap6.player_api_id
89 left join player ap7
90 on m.away_player_7 = ap7.player_api_id
91 left join player ap8
92 on m.away_player_8 = ap8.player_api_id
93 left join player ap9
94 on m.away_player_9 = ap9.player_api_id
95 left join player ap10
96 on m.away_player_10 = ap10.player_api_id
97 left join player ap11
98 on m.away_player_11 = ap11.player_api_id
99
100 where pa1.overall_rating is not null
101 and pa2.overall_rating IS NOT NULL
```

temporada	character varying (50)
1	2012/2013
2	2012/2013
3	2012/2013
4	2012/2013
5	2012/2013
6	2012/2013
7	2012/2013
8	2012/2013
9	2012/2013
10	2012/2013
11	2012/2013
12	2012/2013
13	2012/2013
14	2012/2013
15	2012/2013
16	2012/2013
17	2012/2013
18	2012/2013

Total rows: 1000 of 10742672 Query complete 00:01:41.992 Ln 147, Col 28

pgAdmin 4

File Object Tools Help

projecto1/postgres@PostgreSQL 15

Query

```
99
100 where pa1.overall_rating is not null
101 and pa2.overall_rating IS NOT NULL
102 and pa3.overall_rating IS NOT NULL
103 and pa4.overall_rating IS NOT NULL
104 and pa5.overall_rating IS NOT NULL
105 and pa6.overall_rating IS NOT NULL
106 and pa7.overall_rating IS NOT NULL
107 and pa8.overall_rating IS NOT NULL
108 and pa9.overall_rating IS NOT NULL
109 and pa10.overall_rating IS NOT NULL
110 and pa11.overall_rating IS NOT NULL
111
112 and apa1.overall_rating is not null
113 and apa2.overall_rating IS NOT NULL
114 and apa3.overall_rating IS NOT NULL
115 and apa4.overall_rating IS NOT NULL
116 and apa5.overall_rating IS NOT NULL
117 and apa6.overall_rating IS NOT NULL
118 and apa7.overall_rating IS NOT NULL
119 and apa8.overall_rating IS NOT NULL
120 and apa9.overall_rating IS NOT NULL
121 and apa10.overall_rating IS NOT NULL
122 and apa11.overall_rating IS NOT NULL
123
124 ORDER BY
```

Data Output

	temporada character varying (50)
1	2012/2013
2	2012/2013
3	2012/2013
4	2012/2013
5	2012/2013
6	2012/2013
7	2012/2013
8	2012/2013
9	2012/2013
10	2012/2013
11	2012/2013
12	2012/2013
13	2012/2013
14	2012/2013
15	2012/2013
16	2012/2013
17	2012/2013
18	2012/2013

Total rows: 1000 of 10742672 Query complete 00:01:41.992 Ln 147, Col 28

pgAdmin 4

File Object Tools Help

projecto1/postgres@PostgreSQL 15

Query

```
122 and apa11.overall_rating IS NOT NULL
123
124 ORDER BY
125     home_player_1_rating DESC,
126     home_player_2_rating DESC,
127     home_player_3_rating DESC,
128     home_player_4_rating DESC,
129     home_player_5_rating DESC,
130     home_player_6_rating DESC,
131     home_player_7_rating DESC,
132     home_player_8_rating DESC,
133     home_player_9_rating DESC,
134     home_player_10_rating DESC,
135     home_player_11_rating DESC,
136
137     away_player_1_rating DESC,
138     away_player_2_rating DESC,
139     away_player_3_rating DESC,
140     away_player_4_rating DESC,
141     away_player_5_rating DESC,
142     away_player_6_rating DESC,
143     away_player_7_rating DESC,
144     away_player_8_rating DESC,
145     away_player_9_rating DESC,
146     away_player_10_rating DESC,
147     away_player_11_rating DESC
```

Data Output

	temporada character varying (50)
1	2012/2013
2	2012/2013
3	2012/2013
4	2012/2013
5	2012/2013
6	2012/2013
7	2012/2013
8	2012/2013
9	2012/2013
10	2012/2013
11	2012/2013
12	2012/2013
13	2012/2013
14	2012/2013
15	2012/2013
16	2012/2013
17	2012/2013
18	2012/2013

Total rows: 1000 of 10742672 Query complete 00:01:41.992 Ln 147, Col 28

The screenshot shows the pgAdmin 4 interface with a query result table. The table has 11 columns: `home_player_1`, `home_player_2`, `temporada`, `liga`, `home_player`, `name_home_player`, `home_player`, `home_player_2`, `name_home_player_2`, and `home_player_2_rating`. The data is sorted by `home_player_1` in ascending order. The first 10 rows represent home players, and the next 8 rows represent away players. The status bar indicates 1000 rows out of 10742672 and a query completion time of 00:01:41.992.

	home_player_1	home_player_2	temporada	liga	home_player	name_home_player	home_player	home_player_2	name_home_player_2	home_player_2_rating
122	home_player_1	1	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	39774	Lucio	89
123	home_player_2	2	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	39774	Lucio	88
124	home_player_3	3	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	39774	Lucio	87
125	home_player_4	4	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	39774	Lucio	86
126	home_player_5	5	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
127	home_player_6	6	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
128	home_player_7	7	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
129	home_player_8	8	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
130	home_player_9	9	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
131	home_player_10	10	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
132	away_player_1	11	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
133	away_player_2	12	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
134	away_player_3	13	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
135	away_player_4	14	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
136	away_player_5	15	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
137	away_player_6	16	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85
138	away_player_7	17	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	39774	Lucio	85
139	away_player_8	18	2012/2013	Italy Serie A	30717	Gianluigi Buffon	93	30902	Andrea Barzagli	85

6. Muestre el top 10 de los jugadores más veloces de las ligas europeas en todas las temporadas (esta pregunta fue cambiada a la pregunta original, que pasó a ser de puntos extras)

The screenshot shows the pgAdmin 4 interface with a query result table. The table has 4 columns: `player_apiLid`, `player_name`, and `avg_sprint_speed`. The data is sorted by `avg_sprint_speed` in descending order. The first 10 rows represent the top 10 fastest players. The status bar indicates 10 rows out of 10742672 and a query completion time of 00:01:41.992.

	player_apiLid	player_name	avg_sprint_speed
1	31013	Theo Walcott	95.69696969696970
2	38243	David Odonkor	94.3750000000000000
3	172644	Victor Ibarbo	94.2619047619047619
4	30893	Cristiano Ronaldo	93.7600000000000000
5	245422	Ryo Miyaichi	93.6800000000000000
6	120428	Mathis Bolly	93.5000000000000000
7	150565	Pierre-Emerick Aubameyang	93.4418604651162791
8	423024	Jhon Murillo	93.0000000000000000
9	40686	Jonathan Biabiany	92.5172413793103448
10	37799	Obafemi Martins	92.1702127659574468

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

pgAdmin 4

File Object Tools Help

Dashboard Properties SQL Statistics Dependencies Dependents Processes proyecto1/postgres@PostgreSQL 15*

proyecto1/postgres@PostgreSQL 15

Query Query History

```

1 SELECT equipo_partido.season as temporada, l.name as liga, t1.team_long_name, goles_favor, tal.date,
2     tal.buildupplayspeed,
3     tal.buildUpPlaysSpeed,
4     tal.buildUpPlaysSpeedClass,
5     tal.buildUpPlayDribbling,
6     tal.buildUpPlayDribblingClass,
7     tal.buildUpPlayPassing,
8     tal.buildUpPlayPassingClass,
9     tal.buildUpPlayPositioningClass,
10    tal.chanceCreationPassing,
11    tal.chanceCreationPassingClass,
12    tal.chanceCreationCrossing,
13    tal.chanceCreationCrossingClass,
14    tal.chanceCreationShooting,
15    tal.chanceCreationShootingClass,
16    tal.chanceCreationPositioningClass,
17    tal.defencePressure,
18    tal.defencePressureClass,
19    tal.defenceAggression,
20    tal.defenceAggressionClass,
21    tal.defenceTeamWidth,
22    tal.defenceTeamWidthClass,
23    tal.defenceDefenderLineClass
24
25
26 FROM /

```

Total rows: 1000 of 41269 Query complete 00:00:02.549

Ln 66, Col 26

temporada	character varying (50)
1	2010/2011
2	2010/2011
3	2010/2011
4	2010/2011
5	2010/2011
6	2010/2011
7	2015/2016
8	2015/2016
9	2015/2016
10	2015/2016
11	2015/2016
12	2015/2016
13	2009/2010
14	2009/2010
15	2009/2010
16	2009/2010
17	2009/2010
18	2009/2010

pgAdmin 4

File Object Tools Help

Dashboard Properties SQL Statistics Dependencies Dependents Processes proyecto1/postgres@PostgreSQL 15*

proyecto1/postgres@PostgreSQL 15

Query Query History

```

26 FROM (
27     SELECT league_id, season, date, home_team_api_id AS equipo, home_team_goal AS goles_favor, away_team_goal AS goles_cc
28     FROM match
29     UNION ALL
30     SELECT league_id, season, date, away_team_api_id AS equipo, away_team_goal AS goles_favor, home_team_goal AS goles_cc
31     FROM match
32 ) as equipo_partido
33
34 INNER JOIN league l
35 ON equipo_partido.league_id = l.id
36
37 LEFT JOIN team_attributes tal ON equipo_partido.equipo = tal.team_api_id
38
39
40 LEFT JOIN team t1
41 ON equipo_partido.equipo = t1.team_api_id
42
43 GROUP BY equipo_partido.season, l.name, t1.team_long_name, goles_favor, tal.date,
44     tal.buildupplayspeed,
45     tal.buildUpPlaysSpeed,
46     tal.buildUpPlaysSpeedClass,
47     tal.buildUpPlayDribbling,
48     tal.buildUpPlayDribblingClass,
49     tal.buildUpPlayPassing,
50     tal.buildUpPlayPassingClass,
51     tal.buildUpPlayPositioningClass,

```

Total rows: 1000 of 41269 Query complete 00:00:02.549

Ln 66, Col 26

temporada	character varying (50)
1	2010/2011
2	2010/2011
3	2010/2011
4	2010/2011
5	2010/2011
6	2010/2011
7	2015/2016
8	2015/2016
9	2015/2016
10	2015/2016
11	2015/2016
12	2015/2016
13	2009/2010
14	2009/2010
15	2009/2010
16	2009/2010
17	2009/2010
18	2009/2010

pgAdmin 4

File Object Tools Help

Dashboard Properties SQL Statistics Dependencies Dependents Processes proyecto1/postgres@PostgreSQL 15*

proyecto1/postgres@PostgreSQL 15

Query Query History

```

42
43 GROUP BY equipo_partido.season, l.name, t1.team_long_name, goles_favor, tal.date,
44     tal.buildupplayspeed,
45     tal.buildupPlaySpeed,
46     tal.buildupPlaySpeedClass,
47     tal.buildupPlayDribbling,
48     tal.buildupPlayDribblingClass,
49     tal.buildupPlayPassing,
50     tal.buildupPlayPassingClass,
51     tal.buildupPlayPositioningClass,
52     tal.chanceCreationPassing,
53     tal.chanceCreationPassingClass,
54     tal.chanceCreationCrossing,
55     tal.chanceCreationCrossingClass,
56     tal.chanceCreationShooting,
57     tal.chanceCreationShootingClass,
58     tal.chanceCreationPositioningClass,
59     tal.defencePressure,
60     tal.defencePressureClass,
61     tal.defenceAggression,
62     tal.defenceAggressionClass,
63     tal.defenceTeamWidth,
64     tal.defenceTeamWidthClass,
65     tal.defenceDefenderLineClass
66 ORDER BY goles_favor desc

```

Data Output

temporada	character varying (50)
1	2010/2011
2	2010/2011
3	2010/2011
4	2010/2011
5	2010/2011
6	2010/2011
7	2015/2016
8	2015/2016
9	2015/2016
10	2015/2016
11	2015/2016
12	2015/2016
13	2009/2010
14	2009/2010
15	2009/2010
16	2009/2010
17	2009/2010
18	2009/2010

Total rows: 1000 of 41269 Query complete 00:00:02.549 Ln 66, Col 26

pgAdmin 4

File Object Tools Help

Dashboard Properties SQL Statistics Dependencies Dependents Processes proyecto1/postgres@PostgreSQL 15*

proyecto1/postgres@PostgreSQL 15

Query Query History Scratch Pad Data Output Messages Notifications

```

42
43 GROUP BY equipo_partido.season, l.name, t1.team_long_name, goles_favor, tal.date,
44     tal.buildupplayspeed,
45     tal.buildupPlaySpeed,
46     tal.buildupPlaySpeedClass,
47     tal.buildupPlayDribbling,
48     tal.buildupPlayDribblingClass,
49     tal.buildupPlayPassing,
50     tal.buildupPlayPassingClass,
51     tal.buildupPlayPositioningClass,
52     tal.chanceCreationPassing,
53     tal.chanceCreationPassingClass,
54     tal.chanceCreationCrossing,
55     tal.chanceCreationCrossingClass,
56     tal.chanceCreationShooting,
57     tal.chanceCreationShootingClass,
58     tal.chanceCreationPositioningClass,
59     tal.defencePressure,
60     tal.defencePressureClass,
61     tal.defenceAggression,
62     tal.defenceAggressionClass,
63     tal.defenceTeamWidth,
64     tal.defenceTeamWidthClass,
65     tal.defenceDefenderLineClass
66 ORDER BY goles_favor desc

```

Data Output

temporada	liga	team_long_name	goles_favor	date	buildupplays	buildupplays	buildupplays	buildupplaydr	buildupplaydr	buildupplaydr
character vary	character varying (50)	character varying (50)	integer	date	integer	integer	character var	integer	character var	integer
1	2010/2011	Netherlands Eredivisie	PSV	10	2010-02-22	30	30	Slow	[null]	Little
2	2010/2011	Netherlands Eredivisie	PSV	10	2011-02-22	63	63	Balanced	[null]	Little
3	2010/2011	Netherlands Eredivisie	PSV	10	2012-02-22	33	33	Slow	[null]	Little
4	2010/2011	Netherlands Eredivisie	PSV	10	2013-09-20	54	54	Balanced	[null]	Little
5	2010/2011	Netherlands Eredivisie	PSV	10	2014-09-19	67	67	Fast	35	Normal
6	2010/2011	Netherlands Eredivisie	PSV	10	2015-09-10	67	67	Fast	43	Normal
7	2015/2016	Spain LIGA BBVA	Real Madrid CF	10	2010-02-22	55	55	Balanced	[null]	Little
8	2015/2016	Spain LIGA BBVA	Real Madrid CF	10	2011-02-22	54	54	Balanced	[null]	Little
9	2015/2016	Spain LIGA BBVA	Real Madrid CF	10	2012-02-22	45	45	Balanced	[null]	Little
10	2015/2016	Spain LIGA BBVA	Real Madrid CF	10	2013-09-20	50	50	Balanced	[null]	Little
11	2015/2016	Spain LIGA BBVA	Real Madrid CF	10	2014-09-19	50	50	Balanced	54	Normal
12	2015/2016	Spain LIGA BBVA	Real Madrid CF	10	2015-09-10	50	50	Balanced	57	Normal
13	2009/2010	England Premier League	Tottenham Hotspur	9	2010-02-22	70	70	Fast	[null]	Little
14	2009/2010	England Premier League	Tottenham Hotspur	9	2011-02-22	60	60	Balanced	[null]	Little
15	2009/2010	England Premier League	Tottenham Hotspur	9	2012-02-22	44	44	Balanced	[null]	Little
16	2009/2010	England Premier League	Tottenham Hotspur	9	2013-09-20	42	42	Balanced	[null]	Little
17	2009/2010	England Premier League	Tottenham Hotspur	9	2014-09-19	41	41	Balanced	35	Normal
18	2009/2010	England Premier League	Tottenham Hotspur	9	2015-09-10	47	47	Balanced	46	Normal

Total rows: 41269 of 41269 Query complete 00:00:02.550 Ln 66, Col 26

The screenshot shows the PgAdmin 4 interface. At the top, there's a menu bar with 'PgAdmin 4', 'File', 'Object', 'Tools', and 'Help'. Below it is a toolbar with various icons. The main window is titled 'project01/postgres@PostgreSQL 15*'. It contains a 'Query' tab with a SQL query and a 'Data Output' tab showing the results of the query. The query is a complex SQL statement with multiple JOINs and a GROUP BY clause. The results are displayed in a table with 14 columns. The first column is 'GROUP BY' and the rest are various attributes. The table has 14 rows of data. The status bar at the bottom indicates 'Total rows: 41269 of 41269' and 'Query complete 00:00:02.550'. The system tray at the bottom right shows the date and time as 'Ln 66, Col 26' and '07:50 p.m.'.

SQL Query:

```

GROUP BY equipo_pa
tal.buildUpPla
tal.buildUpPla
tal.buildUpPla
tal.buildUpPla
tal.buildUpPla
tal.chanceCrea
tal.chanceCrea
tal.chanceCrea
tal.chanceCrea
tal.chanceCrea
tal.chanceCrea
tal.chanceCrea
tal.chanceCrea
tal.defencePre
tal.defencePre
tal.defenceAgg
tal.defenceAgg
tal.defenceTea
tal.defenceTea
tal.defenceDef
ORDER BY goles_fav

```

Table Headers:

GROUP BY	equipo_pa	creati	chancecreati	chancecreati	chancecreati	chancecreati	chancecreati	chancecreati	defencepress	defencepress	defenceaggr	defenceaggr	defenceteam	defenceteam	defencedefer
----------	-----------	--------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	--------------	-------------	-------------	-------------	-------------	--------------

Table Data:

1	52	Normal	70	Lots	Organised	30	Deep	30	Contain	30	Narrow	Cover
2	65	Normal	68	Lots	Free Form	57	Medium	37	Press	64	Normal	Offside Tr...
3	55	Normal	48	Normal	Organised	43	Medium	30	Contain	48	Normal	Cover
4	58	Normal	55	Normal	Organised	43	Medium	50	Press	48	Normal	Cover
5	53	Normal	55	Normal	Organised	50	Medium	62	Press	55	Normal	Cover
6	44	Normal	28	Little	Organised	40	Medium	40	Press	48	Normal	Cover
7	60	Normal	70	Lots	Free Form	65	Medium	40	Press	65	Normal	Offside Tr...
8	60	Normal	67	Lots	Free Form	68	High	55	Press	55	Normal	Cover
9	54	Normal	73	Lots	Free Form	49	Medium	60	Press	68	Wide	Cover
10	54	Normal	72	Lots	Free Form	39	Medium	49	Press	65	Normal	Cover
11	54	Normal	69	Lots	Free Form	39	Medium	49	Press	65	Normal	Cover
12	41	Normal	63	Normal	Free Form	52	Medium	60	Press	63	Normal	Cover
13	65	Normal	50	Normal	Organised	50	Medium	50	Press	50	Normal	Cover
14	70	Lots	70	Lots	Organised	30	Deep	40	Press	60	Normal	Cover
15	63	Normal	61	Normal	Organised	43	Medium	44	Press	51	Normal	Cover
16	58	Normal	68	Lots	Organised	63	Medium	61	Press	57	Normal	Cover
17	59	Normal	62	Normal	Organised	58	Medium	51	Press	56	Normal	Cover
18	41	Normal	63	Normal	Organised	63	Medium	54	Press	56	Normal	Cover

Status: Total rows: 41269 of 41269. Query complete 00:00:02.550. Ln 66, Col 26. 07:50 p.m.

8. ¿Quiénes son los 3 países líderes según apuestas y según estadísticas?

–apuestas

The screenshot shows the pgAdmin 4 interface with a SQL query executed. The query calculates the average odds for the top 3 countries based on betting odds. The results are displayed in a table on the right.

```

2 SELECT c.name, AVG(m.B365H + m.B365D + m.B365A
3       + m.BWH + m.BWD + m.BWA
4       + m.IWH + m.IWD + m.IWA
5       + m.LBH + m.LBD + m.LBA
6       + m.PSH + m.PSD + m.PSA
7       + m.WHH + m.WHD + m.WHA
8       + m.SJH + m.SJD + m.SJA
9       + m.VCH + m.VCD + m.VCA
10      + m.GBH + m.GBD + m.GBA
11      + m.BSH + m.BSD + m.BSA) AS avg_odds
12 FROM match m
13 JOIN league l ON m.league_id = l.id
14 JOIN country c ON l.country_id = c.id
15 GROUP BY c.name
16 HAVING AVG(m.B365H + m.B365D + m.B365A
17       + m.BWH + m.BWD + m.BWA
18       + m.IWH + m.IWD + m.IWA
19       + m.LBH + m.LBD + m.LBA
20       + m.PSH + m.PSD + m.PSA
21       + m.WHH + m.WHD + m.WHA
22       + m.SJH + m.SJD + m.SJA
23       + m.VCH + m.VCD + m.VCA
24       + m.GBH + m.GBD + m.GBA
25       + m.BSH + m.BSD + m.BSA) IS NOT NULL
26 ORDER BY avg_odds DESC
27 LIMIT 3;
    
```

	name character varying (50)	avg_odds double precision
1	Spain	117.01082620320855
2	England	109.5400264550265
3	Netherlands	109.30205

–Estadísticas

The screenshot shows the pgAdmin 4 interface with a SQL query executed. The query calculates the total home wins for the top 3 countries based on the number of home team goals. The results are displayed in a table on the right.

```

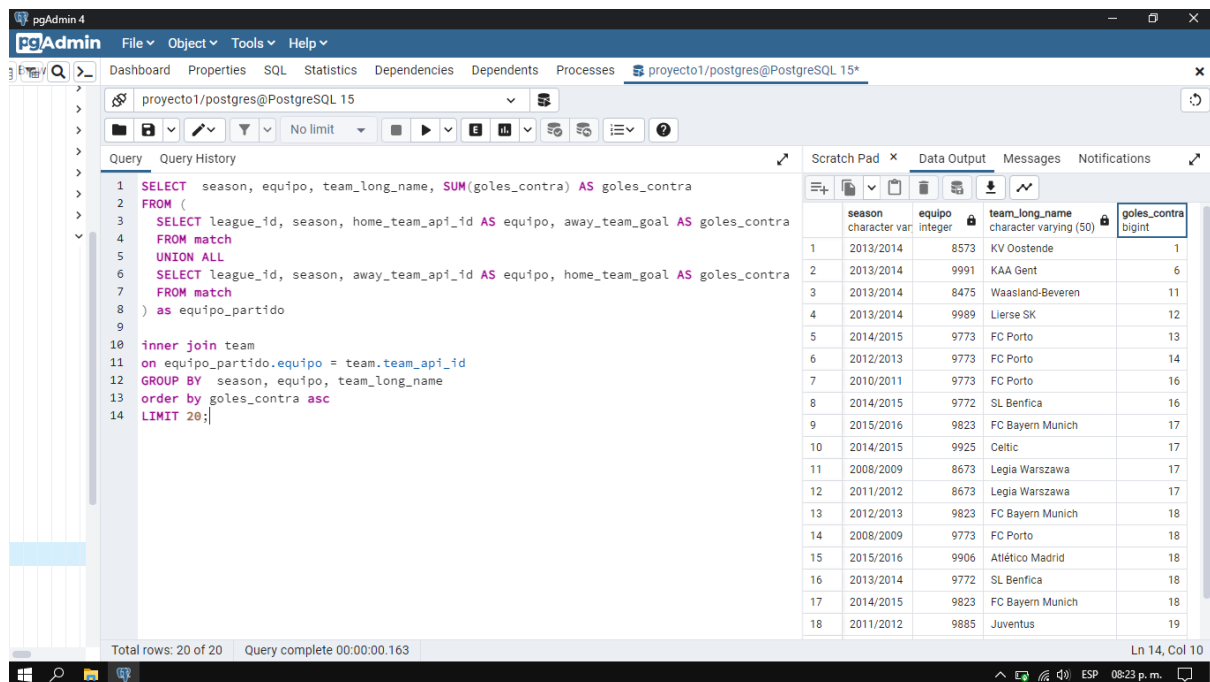
1 -- Estadísticas
2
3 SELECT c.name, SUM(CASE
4       WHEN m.home_team_goal > m.away_team_goal THEN 1
5       ELSE 0
6       END) AS total_home_wins
7 FROM match m
8 JOIN league l
9 ON m.league_id = l.id
10 JOIN country c
11 ON l.country_id = c.id
12 GROUP BY c.name
13 ORDER BY total_home_wins DESC
14 LIMIT 3;
    
```

	name character varying (50)	total_home_wins bigint
1	Spain	1485
2	Italy	1407
3	England	1390

Etap 3

A continuación, debe plantear sus propias preguntas que le permitan justificar la decisión que tomará acerca de en qué equipo invertirá. Todas sus conclusiones deben estar basadas en el resultado de consultas SQL. Por ejemplo (sugerencias):

- Podría plantearse apostar en el equipo que sea más consistente en la cantidad de partidos que gana por temporada
 - Podría plantearse apostar en el equipo que haya mejorado en las últimas tres temporadas
 - Podría plantearse invertir en el equipo tienen características de ser más que son más creativos y que tienen una alta presión sobre la defensa, o a lo mejor los que tienen un juego rápido y un juego más agresivo.
 - Etc.
- ¿Cuales son los 20 equipos que tienen mejor defensa en términos de goles recibidos por temporada?



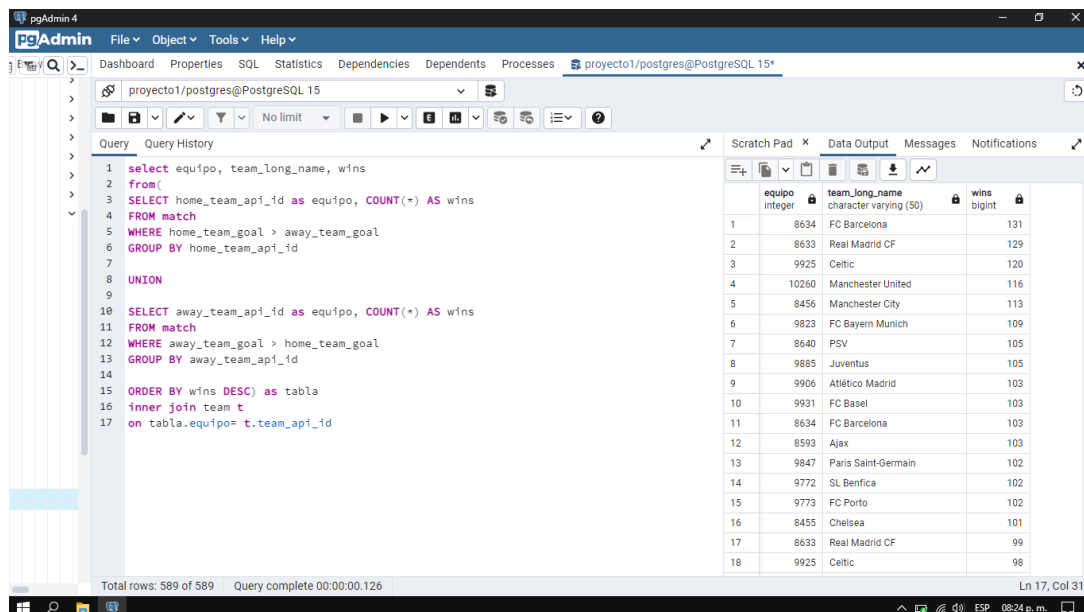
Query:

```
1 SELECT season, equipo, team_long_name, SUM(goles_contra) AS goles_contra
2 FROM (
3   SELECT league_id, season, home_team_api_id AS equipo, away_team_goal AS goles_contra
4   FROM match
5   UNION ALL
6   SELECT league_id, season, away_team_api_id AS equipo, home_team_goal AS goles_contra
7   FROM match
8 ) AS equipo_partido
9
10 inner join team
11 on equipo_partido.equipo = team.team_api_id
12 GROUP BY season, equipo, team_long_name
13 order by goles_contra asc
14 LIMIT 20;
```

Results:

season	equipo	team_long_name	goles_contra
2013/2014	8573	KV Oostende	1
2013/2014	9991	KAA Gent	6
2013/2014	8475	Waasland-Beveren	11
2013/2014	9989	Lierse SK	12
2014/2015	9773	FC Porto	13
2012/2013	9773	FC Porto	14
2010/2011	9773	FC Porto	16
2014/2015	9772	SL Benfica	16
2015/2016	9823	FC Bayern Munich	17
2014/2015	9925	Celtic	17
2008/2009	8673	Legia Warszawa	17
2011/2012	8673	Legia Warszawa	17
2012/2013	9823	FC Bayern Munich	18
2008/2009	9773	FC Porto	18
2015/2016	9906	Atlético Madrid	18
2013/2014	9772	SL Benfica	18
2014/2015	9823	FC Bayern Munich	18
2011/2012	9885	Juventus	19

- ¿Cual es el equipo más consistente en la cantidad de partidos que gana por temporada?



Query:

```
1 select equipo, team_long_name, wins
2 from(
3   SELECT home_team_api_id as equipo, COUNT(*) AS wins
4   FROM match
5   WHERE home_team_goal > away_team_goal
6   GROUP BY home_team_api_id
7
8   UNION
9
10  SELECT away_team_api_id as equipo, COUNT(*) AS wins
11  FROM match
12  WHERE away_team_goal > home_team_goal
13  GROUP BY away_team_api_id
14
15  ORDER BY wins DESC) as tabla
16 inner join team t
17 on tabla.equipo= t.team_api_id
```

Results:

equipo	team_long_name	wins
8634	FC Barcelona	131
8633	Real Madrid CF	129
9925	Celtic	120
10260	Manchester United	116
8456	Manchester City	113
9823	FC Bayern Munich	109
8640	PSV	105
9885	Juventus	105
9906	Atlético Madrid	103
9931	FC Basel	103
8634	FC Barcelona	103
8593	Ajax	103
9847	Paris Saint-Germain	102
9772	SL Benfica	102
9773	FC Porto	102
8455	Chelsea	101
8633	Real Madrid CF	99
9925	Celtic	98

- ¿Cuáles son los 20 equipos más organizados y su manejo en pases?

The screenshot shows the pgAdmin 4 interface. The left pane displays the database structure, and the central pane shows a SQL query. The right pane displays the results of the query in a table format.

```
1 select team_long_name, buildupplaypositioningclass, chanceCreationCrossing
2 from team t
3 inner join team_attributes ta
4 on t.team_api_id = ta.team_api_id
5 where buildupplaypositioningclass = 'Organised'
6 group by team_long_name, buildupplaypositioningclass, chanceCreationCrossing
7 ORDER BY chanceCreationCrossing DESC
8 LIMIT 20;
```

	team_long_name	buildupplaypositioningclass	chanceCreationCrossing
1	LOSC Lille	Organised	80
2	Lazio	Organised	80
3	Athletic Club de Bilbao	Organised	78
4	Udinese	Organised	78
5	SV Darmstadt 98	Organised	77
6	Juventus	Organised	77
7	Olympique de Marseille	Organised	77
8	Valenciennes FC	Organised	76
9	Norwich City	Organised	76
10	CS Marítimo	Organised	76
11	Granada CF	Organised	76
12	Roma	Organised	75
13	SC Heerenveen	Organised	75
14	West Ham United	Organised	74
15	AZ	Organised	74
16	Reggio Calabria	Organised	74
17	KAA Gent	Organised	74
18	Liverpool	Organised	73

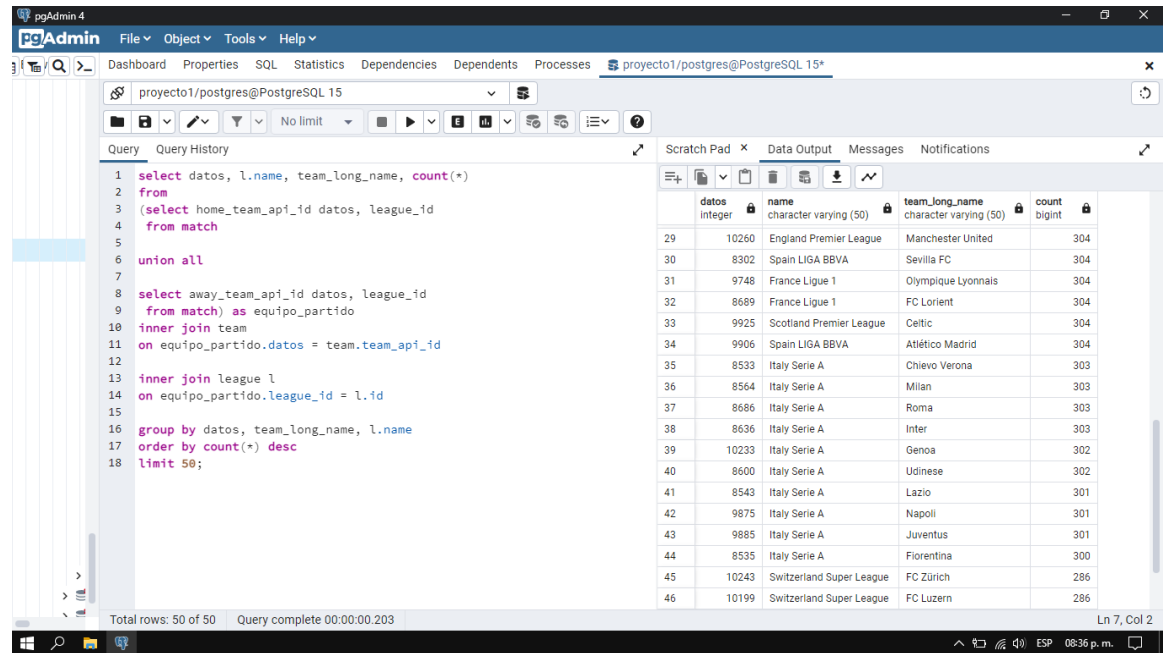
- ¿Cuales son los jugadores que más aciertan a los penaltys?

The screenshot shows the pgAdmin 4 interface. The left pane displays the database structure, and the central pane shows a SQL query. The right pane displays the results of the query in a table format.

```
1 select p.player_api_id, player_name, penalties
2 from player p
3 inner join player_attributes pa
4 on p.player_api_id = pa.player_api_id
5 where penalties is not null
6 group by player_name, penalties, p.player_api_id
7 order by penalties desc
8 limit 20;
```

	player_api_id	player_name	penalties
1	39225	Rickie Lambert	96
2	30731	Andrea Pirlo	95
3	108808	Mario Balotelli	95
4	30373	Paul Scholes	95
5	39225	Rickie Lambert	95
6	39854	Xavi Hernandez	95
7	39311	Adrian Mutu	94
8	30731	Andrea Pirlo	94
9	30613	Cesc Fabregas	94
10	30728	David Trezeguet	94
11	34520	Fabio Cannavaro	94
12	30657	Iker Casillas	94
13	26099	Paolo Maldini	94
14	39225	Rickie Lambert	94
15	30592	Roy Makaay	94
16	30881	Alberto Gilardino	93
17	34102	Alexander Frei	93
18	32748	Antonio Cassano	93

- ¿Cuáles son los 50 países que más partidos han jugado y sus ligas?



Query

```
1 select datos, l.name, team_long_name, count(*)
2 from
3 (select home_team_api_id datos, league_id
4  from match
5
6  union all
7
8  select away_team_api_id datos, league_id
9   from match) as equipo_partido
10 inner join team
11 on equipo_partido.datos = team.team_api_id
12
13 inner join league l
14 on equipo_partido.league_id = l.id
15
16 group by datos, team_long_name, l.name
17 order by count(*) desc
18 limit 50;
```

Data Output

	datos	name	team_long_name	count
	integer	character varying (50)	character varying (50)	bigint
29	10260	England Premier League	Manchester United	304
30	8302	Spain LIGA BBVA	Sevilla FC	304
31	9748	France Ligue 1	Olympique Lyonnais	304
32	8689	France Ligue 1	FC Lorient	304
33	9925	Scotland Premier League	Celtic	304
34	9906	Spain LIGA BBVA	Atlético Madrid	304
35	8533	Italy Serie A	Chievo Verona	303
36	8564	Italy Serie A	Milan	303
37	8686	Italy Serie A	Roma	303
38	8636	Italy Serie A	Inter	303
39	10233	Italy Serie A	Genoa	302
40	8600	Italy Serie A	Udinese	302
41	8543	Italy Serie A	Lazio	301
42	9875	Italy Serie A	Napoli	301
43	9885	Italy Serie A	Juventus	301
44	8535	Italy Serie A	Fiorentina	300
45	10243	Switzerland Super League	FC Zürich	286
46	10199	Switzerland Super League	FC Luzern	286

Total rows: 50 of 50 Query complete 00:00:00.203 Ln 7, Col 2

Requerimientos mínimos a completar:

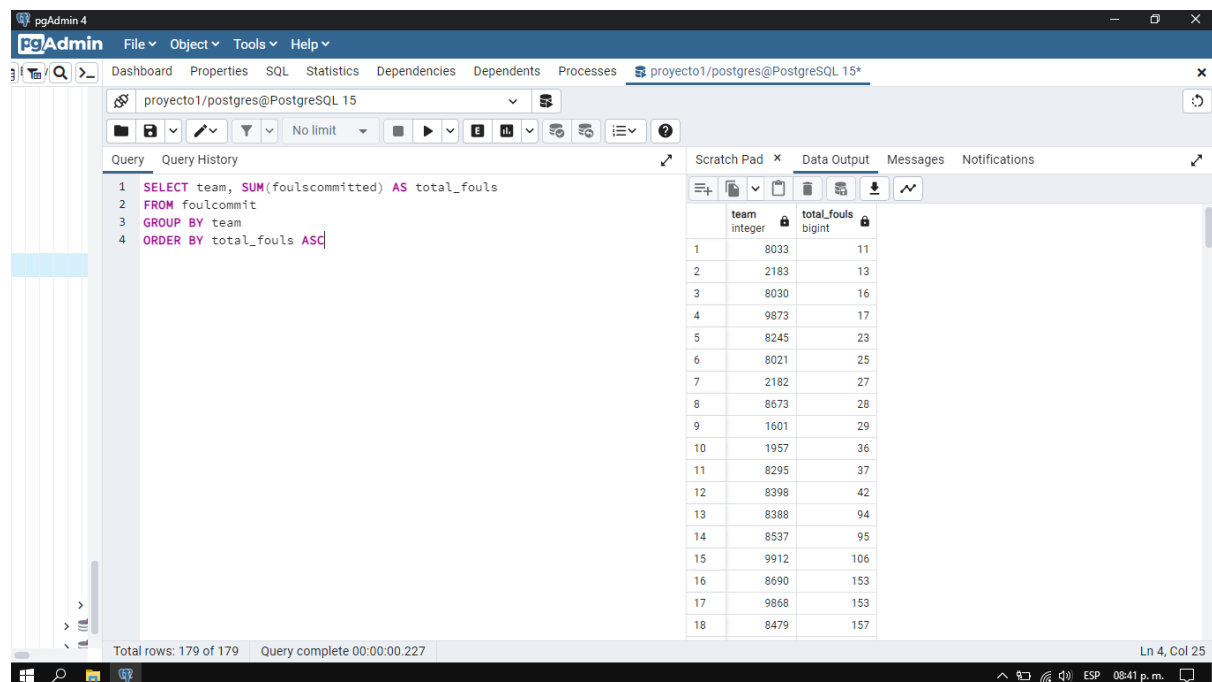
- Se debe presentar el resultado de al menos 15 queries en todo el proyecto
- Deben presentarse al menos tres queries diferentes con agrupaciones (GROUP BY)
- Deben presentarse al menos tres queries diferentes con JOINS entre dos o más tablas
- Debe presentarse al menos una consulta que haga uso de subqueries

Basado en el desempeño de los equipos y jugadores según este modelo, ¿a qué equipo le apostaría usted? (debe de dar fundamentos basados en los datos)

Yo le apostaría Juventus de la liga italiana ya que es un país que es uno de los mejores estadísticamente, y según los datos que hemos recibido es que tiene una muy buena defensa, cuenta con un muy buen portero, además que ha sido un país que ha jugado muchos partidos a diferencia de otros, no apostaría por otros como El Real Madrid o Barcelona ya que pertenece a la liga española y es uno donde reciben muchas apuestas, si se apuesta aquí puede que se pierda mucho dinero. Juventus es consistente en la cantidad de partidos que gana en su liga, organizado, un muy buen manejo del balón, cuenta con Cristiano Ronaldo que tienen una velocidad para correr muy rápida

Puntos extras:

- Creatividad para presentación de análisis
- Creatividad para presentación de resultados de queries de forma gráfica
- Responder a la siguiente pregunta: ¿Cuál es el equipo cuyos jugadores han incurrido en menos faltas?



The screenshot shows the pgAdmin 4 interface. The query editor on the left contains the following SQL query:

```
1 SELECT team, SUM(foulscommitted) AS total_fouls
2 FROM foulcommit
3 GROUP BY team
4 ORDER BY total_fouls ASC
```

The Data Output tab on the right displays the results of the query in a table format. The table has two columns: 'team' (integer) and 'total_fouls' (bigint). The results are sorted by total_fouls in ascending order.

team	total_fouls
8033	11
2183	13
8030	16
9873	17
8245	23
8021	25
2182	27
8673	28
1601	29
1957	36
8295	37
8398	42
8388	94
8537	95
9912	106
8690	153
9868	153
8479	157

The status bar at the bottom indicates 'Total rows: 179 of 179' and 'Query complete 00:00:00.227'.

```
def valFoucommit(archivo):
    # Crear una conexión a la base de datos y un cursor
    conn = psycopg2.connect(
        database = 'proyecto1', user='postgres', password='1234567',
        host='127.0.0.1', port='5432'
    )
    cursor = conn.cursor()
    # #Crear la tabla "foulcommit"
    # cursor.execute('''CREATE TABLE foulcommit
    #                     (id INTEGER, foulscommitted INTEGER,
    #                     event_incident_typefk INTEGER, elapsed INTEGER,
    #                     player2 INTEGER, subtype TEXT, player1 INTEGER,
    #                     sortorder INTEGER, team INTEGER,
    #                     n INTEGER, type TEXT)''')
    # Analizar el archivo XML
```

```
root = ET.fromstring(archivo)

# tree = ET.parse('./wdfg.xml')
# root = tree.getroot()

# Recorrer cada elemento "value" en el archivo XML
for value in root.iter('value'):
    # Obtener los valores de cada elemento en el elemento "value"
    if value.find('id') is not None:
        id = value.find('id').text
    else:
        id = None
    if value.find('..//foulscommitted') is not None:
        foulscommitted = value.find('..//foulscommitted').text
    else:
        foulscommitted = None
    if value.find('event_incident_typefk') is not None:
        event_incident_typefk =
value.find('event_incident_typefk').text
    else:
        event_incident_typefk = None
    if value.find('elapsed') is not None:
        elapsed = value.find('elapsed').text
    else:
        elapsed = None
    if value.find('player2') is not None:
        player2 = value.find('player2').text
    else:
        player2 = None

    if value.find('subtype') is not None:
        subtype = value.find('subtype').text
    else:
        subtype = None

    if value.find('player1') is not None:
        player1 = value.find('player1').text
        if player1 == "Unknown player":
            player1 = None
    else:
        player1 = None
    if value.find('sortorder') is not None:
        sortorder = value.find('sortorder').text
```

```
        else:
            sortorder = None
        if value.find('team') is not None:
            team = value.find('team').text
        else:
            team = None
        if value.find('n') is not None:
            n = value.find('n').text
        else:
            n = None
        if value.find('type') is not None:
            type = value.find('type').text
        else:
            type = None

        # Insertar los valores en la tabla "foulcommit"
        cursor.execute("INSERT INTO foulcommit VALUES (%s, %s, %s, %s, %s, %s, %s, %s, %s, %s)",
            (id, foulscommitted, event_incident_typefk, elapsed, player2, subtype, player1, sortorder, team, n, type))

        # Confirmar los cambios y cerrar la conexión
        conn.commit()
        conn.close()

    print("insertado")
```