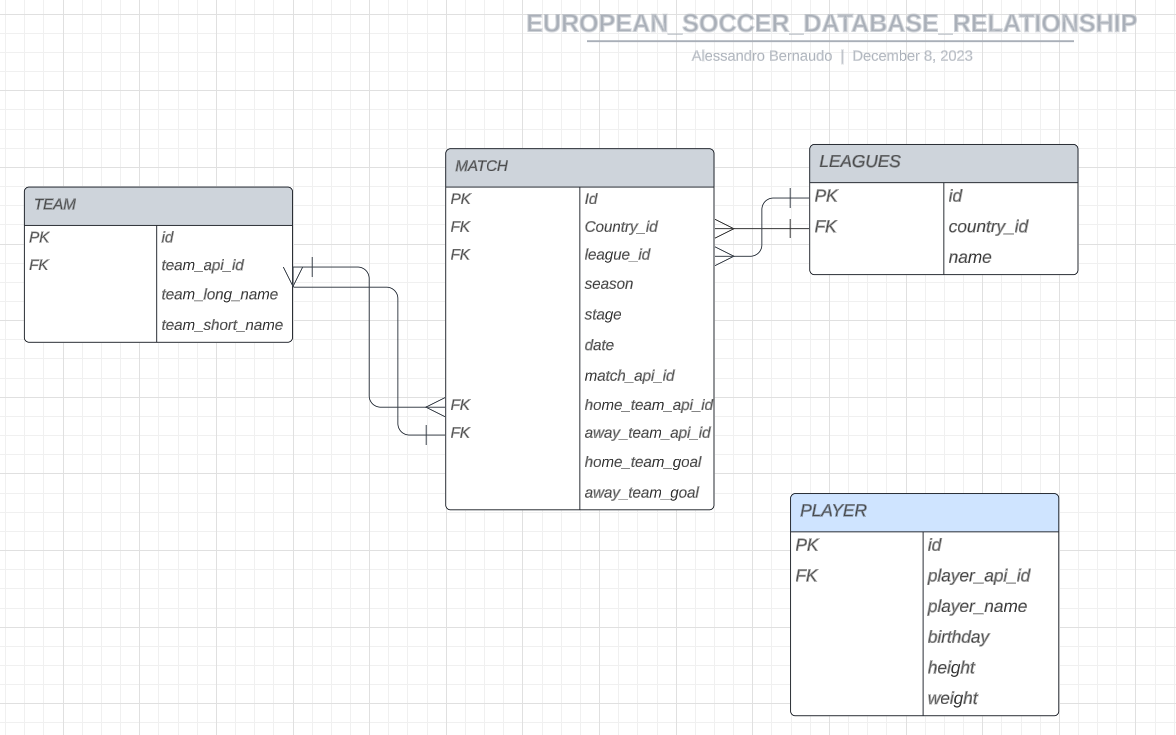
**EUROPEAN SOCCER DATABASE ANALYSIS WITH SQL**

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I wanted to know How many days have passed from the oldest match to the most recent one.

with a as

(SELECT distinct first\_value(date)over(order by date) as firstmatch\_date,

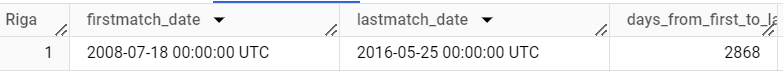
(select distinct first\_value(date)over(order by date desc) FROM `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.match`) as lastmatch\_date

FROM `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.match`)

select firstmatch\_date, lastmatch\_date,

date\_diff(lastmatch\_date, firstmatch\_date, day) as days\_from\_first\_to\_last\_match

from a;



I produced a table which, for each Season and League Name, shows the following statistics about the home goals scored:

min, average , mid-range ,max ,sum

with x as(

  select

a.\*, b.name

from `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.match` as a

left join

`sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.leagues` as b

on a.league\_id=b.id

)

select

distinct season,

name,

first\_value(home\_team\_goal) over(partition by season, name order by home\_team\_goal ) as  min\_home\_gol,

round(avg(home\_team\_goal) over(partition by season, name ),2) as avg\_home\_gol,

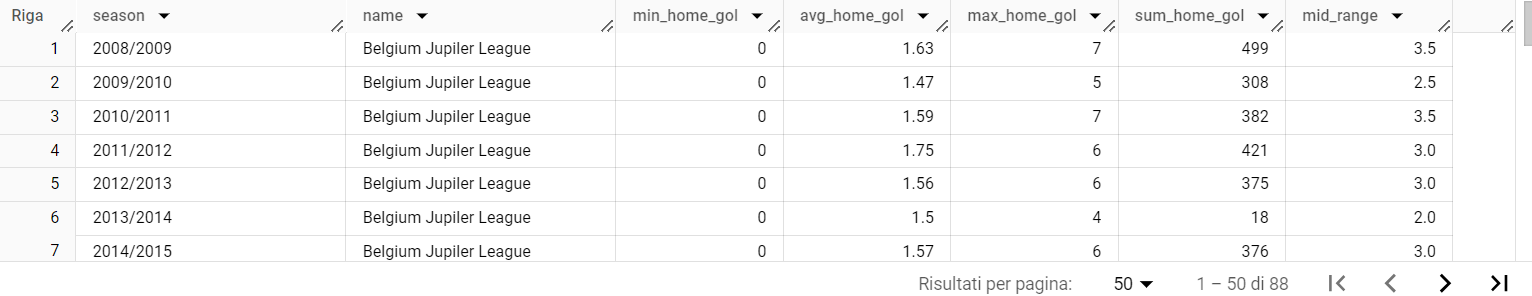
first\_value(home\_team\_goal) over(partition by season, name order by home\_team\_goal desc) as max\_home\_gol,

sum(home\_team\_goal) over(partition by season, name) as sum\_home\_gol,

(((first\_value(home\_team\_goal) over(partition by season, name order by home\_team\_goal desc))+(first\_value(home\_team\_goal) over(partition by season, name order by home\_team\_goal )))/2) as mid\_range

from x

order by name, season;



I Found out how many unique seasons are in the Match table.

select count(season) as nr\_unique\_seasons

from(select distinct season, league\_id from `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.match`);

Immagine che contiene testo, schermata, Carattere, linea

Descrizione generata automaticamente

I wrote a query that shows, for each Season, the number of matches played by each League.

with x as

  (select

a.\*, b.name

from `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.match` as a

left join

`sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.leagues` as b

on a.league\_id=b.id)

select

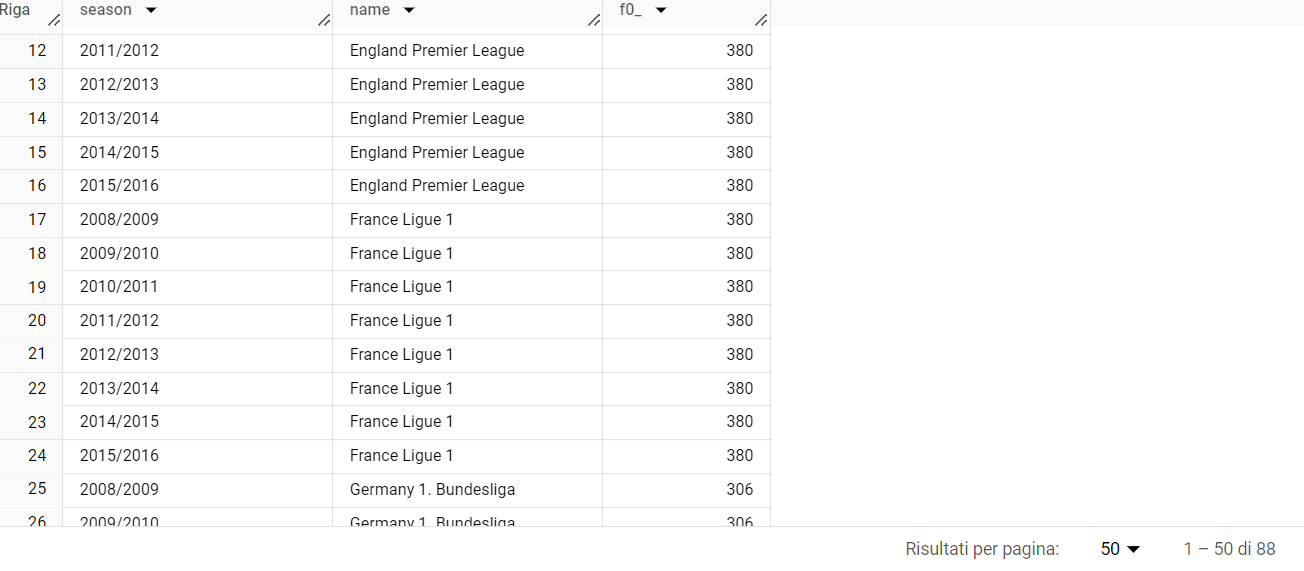
distinct season,

name,

count(\*) over(partition by season, name)

from x

order by name, season;



Using Players as the starting point, I created a new table (PlayerBMI) adding the following variables:

a. a new variable that represents the players’ weight in kg and called it kg\_weight;

b. a variable that represents the height in meters and called it m\_height;

c. a variable that shows the body mass index (BMI) of the player;

create table `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.playerBMI` AS

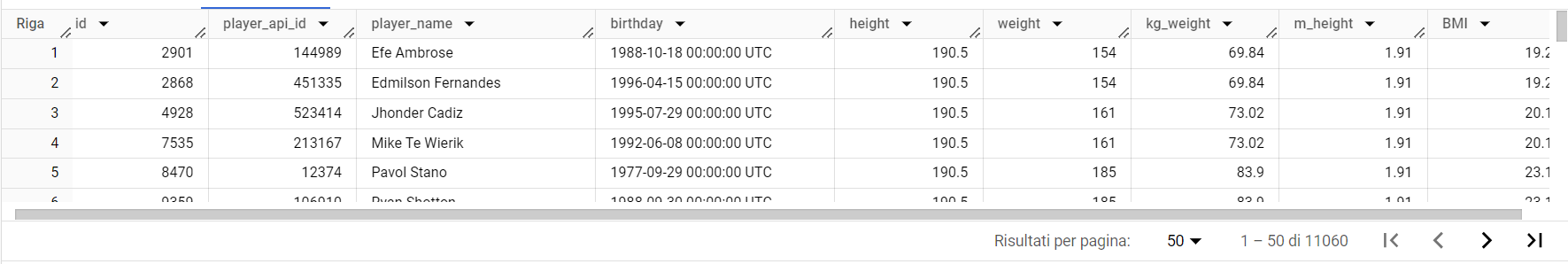
(select \*,

round(weight/2.205,2) as kg\_weight,

round(height/100,2) as m\_height,

round((weight/2.205)/(power(height/100, 2)),2) as BMI

from `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.player`);



I filtered the table to see the nr of players with not optimal BMI

Select

count(\*) as nr\_player\_with\_bad\_bmi

from `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.playerBMI`

where BMI<18.5 or BMI>24.9;



I wanted to know which Team scored the highest total number of goals (home + away) during the most recent available season and how many goals it has scored

select

a.team\_api\_id, a.team\_long\_name,

sum(case when b.home\_team\_api\_id=a.team\_api\_id then b.home\_team\_goal end) as tot\_home\_goal,

sum(case when b.away\_team\_api\_id=a.team\_api\_id then b.away\_team\_goal end) as tot\_away\_goal,

((sum(case when b.home\_team\_api\_id=a.team\_api\_id then b.home\_team\_goal end))+

(sum(case when b.away\_team\_api\_id=a.team\_api\_id then b.away\_team\_goal end))) as tot\_goal

from `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.team` as a

left join

`sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.match` as b

on a.team\_api\_id=b.home\_team\_api\_id or a.team\_api\_id=b.away\_team\_api\_id

where season="2015/2016"

group by a.team\_api\_id, a.team\_long\_name

order by tot\_goal desc;

Immagine che contiene testo, Carattere, linea, numero

Descrizione generata automaticamente

I created a query that, for each season, shows the name of the team that ranks first in terms of total goals scored

with x as

(select

b.season, a.team\_api\_id, a.team\_long\_name,

sum(case when b.home\_team\_api\_id=a.team\_api\_id then b.home\_team\_goal end) as tot\_home\_goal,

sum(case when b.away\_team\_api\_id=a.team\_api\_id then b.away\_team\_goal end) as tot\_away\_goal,

((sum(case when b.home\_team\_api\_id=a.team\_api\_id then b.home\_team\_goal end))+

(sum(case when b.away\_team\_api\_id=a.team\_api\_id then b.away\_team\_goal end))) as tot\_goal,

rank() over(partition by b.season order by ((sum(case when b.home\_team\_api\_id=a.team\_api\_id then b.home\_team\_goal end))+

(sum(case when b.away\_team\_api\_id=a.team\_api\_id then b.away\_team\_goal end)))desc) as rank

from `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.team` as a

left join

`sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.match` as b

on a.team\_api\_id=b.home\_team\_api\_id or a.team\_api\_id=b.away\_team\_api\_id

group by b.season, a.team\_api\_id, a.team\_long\_name

)

select\*

from x

where rank=1

order by season;

Immagine che contiene testo, schermata, numero, Carattere

Descrizione generata automaticamente

Finally I created a new table (TopScorer) containing the top 10 teams in terms of total goals scored

create table `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.TopScorer` as

(select

a.team\_api\_id, a.team\_long\_name,

sum(case when b.home\_team\_api\_id=a.team\_api\_id then b.home\_team\_goal end) as tot\_home\_goal,

sum(case when b.away\_team\_api\_id=a.team\_api\_id then b.away\_team\_goal end) as tot\_away\_goal,

((sum(case when b.home\_team\_api\_id=a.team\_api\_id then b.home\_team\_goal end))+

(sum(case when b.away\_team\_api\_id=a.team\_api\_id then b.away\_team\_goal end))) as tot\_goal

from `sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.team` as a

left join

`sql-project-1-398317.EUROPEAN\_SOCCER\_DATABASE.match` as b

on a.team\_api\_id=b.home\_team\_api\_id or a.team\_api\_id=b.away\_team\_api\_id

where season="2015/2016"

group by a.team\_api\_id, a.team\_long\_name

order by tot\_goal desc

limit 10);

