Exercices SQL

https://sqlzoo.net/wiki/The_JOIN_operation

game					
id	mdate	stadium		team1	team2
1001	8 June 2012	National Stadium, Warsaw		POL	GRE
1002	8 June 2012	Stadion Miejski (Wrocław)		RUS	CZE
1003	12 June 2012	Stadion Miejski (Wrocław)		GRE	CZE
1004	12 June 2012	National Stadium, Warsaw		POL	RUS
...					

goal			
matchid	teamid	player	gtime
1001	POL	Robert Lewandowski	17
1001	GRE	Dimitris Salpingidis	51
1002	RUS	Alan Dzagoev	15
1002	RUS	Roman Pavlyuchenko	82
...			

eteam		
id	teamname	coach
POL	Poland	Franciszek Smuda
RUS	Russia	Dick Advocaat
CZE	Czech Republic	Michal Bilek
GRE	Greece	Fernando Santos
...		

Les tables avec les noms de leurs colonnes :

*** game(id, mdate, stadium, team1, team2)

*** goal(matchid, teamid, player, gtime)

*** eteam(id, teamname, coach)

1. **Modify it to show the *matchid* and *player* name for all goals scored by Germany. To identify German players, check for : `teamid = 'GER'`**

SELECT g.id, go.player

FROM game g

INNER JOIN goal go ON g.id = go.matchid

WHERE go.teamid = 'GER'

2.

From the previous query you can see that Lars Bender's scored a goal in game 1012. Now we want to know what teams were playing in that match.

Notice in the that the column `matchid` in the `goal` table corresponds to the `id` column in the `game` table. We can look up information about game 1012 by finding that row in the **game** table.

Show id, stadium, team1, team2 for just game 1012

SELECT id, stadium, team1, team2

FROM game

WHERE id = 1012

3.

The code below shows the player (from the goal) and stadium name (from the game table) for every goal scored.

Modify it to show the player, teamid, stadium and mdate for every German goal.

```
-- Modifiez-le pour afficher le joueur, l'identifiant de l'équipe,

-- le stade et la date de chaque but allemand.

SELECT go.player, et.id, g.stadium, g.mdate

FROM game g

JOIN goal go ON g.id = go.matchid

JOIN eteam et ON go.teamid = et.id

WHERE go.teamid = 'GER'
```

4. **Show the team1, team2 and player for every goal scored by a player called Mario `player LIKE 'Mario%'`**

Afficher l'équipe 1, l'équipe 2 et le joueur pour chaque but marqué par un joueur appelé Mario Player LIKE 'Mario%'

```
SELECT g.team1, g.team2, go.player

FROM game g INNER JOIN goal go ON g.id = go.matchid

WHERE go.player LIKE 'Mario%'
```

5. The table `eteam` gives details of every national team including the coach. You can `JOIN` `goal` to `eteam` using the phrase `goal JOIN eteam on teamid=id`

Show `player, teamid, coach, gtime` for all goals scored in the first 10 minutes `gtime<=10.` Afficher le joueur, l'identifiant de l'équipe, l'entraîneur et le temps g pour tous les buts marqués au cours des 10 premières minutes gtime <= 10

```
SELECT go.player, go.teamid, et.coach, go.gtime

FROM goal go INNER JOIN eteam et ON go.teamid = et.id

WHERE go.gtime<=10
```

6.

To `JOIN` `game` with `eteam` you could use either

`game JOIN eteam ON (team1=eteam.id)` or `game JOIN eteam ON (team2=eteam.id)`

Notice that because `id` is a column name in both `game` and `eteam` you must specify `eteam.id` instead of just `id`

List the dates of the matches and the name of the team in which 'Fernando Santos' was the team1 coach (Indiquez les dates des matchs et le nom de l'équipe dans laquelle « Fernando Santos » était l'entraîneur de l'équipe 1**).**

```
SELECT DISTINCT g.mdate, et.teamname

FROM game g INNER JOIN goal go ON g.id = go.matchid

INNER JOIN eteam et ON g.team1 = et.id

WHERE et.coach = 'Fernando Santos'
```

7.

List the player for every goal scored in a game where the stadium was 'National Stadium, Warsaw' (Indiquez le joueur pour chaque but marqué dans un match où le stade était le « Stade National de Varsovie »)

```
SELECT go.player

FROM goal go JOIN game g ON go.matchid = g.id

WHERE g.stadium = 'National Stadium, Warsaw'
```

8.

The example query shows all goals scored in the Germany-Greece quarterfinal.

Instead show the name of all players who scored a goal against Germany.

Affichez plutôt le nom de tous les joueurs qui ont marqué un but contre l'Allemagne.

« teamid » vient de la table 'goal'

```
SELECT DISTINCT go.player

FROM goal go JOIN game g ON go.matchid = g.id

WHERE (g.team1='GER' AND go.teamid !='GER') OR

        (g.team2='GER' AND go.teamid !='GER')
```

Version 2

```
-- Affichez plutôt le nom de tous les joueurs qui ont marqué un but contre

-- l'Allemagne.

SELECT DISTINCT go.player

FROM goal go JOIN game g ON go.matchid = g.id

WHERE (g.team1='GER' OR g.team2='GER') AND go.teamid != 'GER'
```

9. **Show teamname and the total number of goals scored. (**Afficher le nom de l'équipe et le nombre total de buts marqués)

```
SELECT et.teamname, COUNT(go.teamid)

FROM eteam et

JOIN goal go ON et.id = go.teamid

GROUP BY et.id

ORDER BY teamname
```

10.

Show the stadium and the number of goals scored in each stadium.

```
-- Affichez le stade et le nombre de buts marqués dans chaque stade.

SELECT DISTINCT g.stadium, COUNT(go.teamid)

FROM game g

JOIN goal go ON g.id = go.matchid

GROUP BY g.stadium
```

11. **For every match involving 'POL', show the matchid, date and the number of goals scored.**

```
-- Pour chaque match impliquant « POL », indiquez l'identifiant du match,

-- la date et le nombre de buts marqués

SELECT go.matchid, g.mdate, count(go.teamid)

FROM game g

JOIN goal go ON g.id = go.matchid

WHERE (g.team1 = 'POL' OR g.team2 = 'POL')

GROUP BY go.matchid
```

12. **For every match where 'GER' scored, show matchid, match date and the number of goals scored by 'GER'**

```
-- Pour chaque match où « GER » a marqué, affichez l'identifiant du match,

-- la date du match et le nombre de buts marqués par « GER »

SELECT go.matchid, g.mdate, COUNT(go.teamid)

FROM goal go

JOIN game g ON go.matchid = g.id

WHERE go.teamid = 'GER'

GROUP BY go.matchid
```

```
SELECT

  g.mdate,

  g.team1,

  SUM(CASE

        WHEN g.team1 = go.teamid THEN 1

        ELSE 0 END)

  AS score1,

  g.team2,

  SUM(CASE WHEN g.team2 = go.teamid THEN 1 ELSE 0 END) AS score2

FROM

  game g

LEFT JOIN goal go ON g.id = go.matchid

GROUP BY

  g.mdate, g.id, g.team1, g.team2

ORDER BY

  g.mdate, g.id, g.team1, g.team2;
```