

1. 😊

The first example shows the goal scored by a player with the last name 'Bender'. The \* says to list all the columns in the table - a shorter way of saying matchid, teamid, player, gtime

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

```
SELECT matchid, player FROM goal
WHERE teamid = 'GER'
```

Submit SQL Restore default

Correct answer

| matchid | player         |
|---------|----------------|
| 1008    | Mario Gómez    |
| 1010    | Mario Gómez    |
| 1010    | Mario Gómez    |
| 1012    | Lukas Podolski |
| 1012    | Lars Bender    |
| 1026    | Philipp Lahm   |
| 1026    | Sami Khedira   |

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
```

Submit SQL Restore default

Correct answer

| id   | stadium    | team1 | team2 |
|------|------------|-------|-------|
| 1012 | Arena Lviv | DEN   | GER   |

3. 😊

You can combine the two steps into a single query with a JOIN

```
SELECT *
FROM game JOIN goal ON (id=matchid)
```

The FROM clause says to merge data from the goal table with that from the game table. The ON says how to figure out which rows in game go with which rows in goal - the matchid from goal must match id from game. (If we wanted to be more clear/specific we could say ON (game.id=goal.matchid)

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.

```
SELECT player, teamid, stadium, mdate FROM game
JOIN goal ON (id=matchid)
WHERE teamid='GER'
```

Correct answer

| player         | teamid | stadium          | mdate               |
|----------------|--------|------------------|---------------------|
| Mario Gómez    | GER    | Arena Lviv       | 2012-06-09T00:00:00 |
| Mario Gómez    | GER    | Metalist Stadium | 2012-06-13T00:00:00 |
| Mario Gómez    | GER    | Metalist Stadium | 2012-06-13T00:00:00 |
| Lukas Podolski | GER    | Arena Lviv       | 2012-06-17T00:00:00 |
| Lars Bender    | GER    | Arena Lviv       | 2012-06-17T00:00:00 |
| Philipp Lahm   | GER    | PGE Arena Gdansk | 2012-06-22T00:00:00 |
| Sami Khedira   | GER    | PGE Arena Gdansk | 2012-06-22T00:00:00 |

4. 😊

Use the same `JOIN` as in the previous question.

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

```
SELECT team1, team2, player FROM goal
JOIN game ON (game.id=goal.matchid)
WHERE player LIKE 'Mario%'
```

Submit SQL

Restore default

| team1 | team2 | player          |
|-------|-------|-----------------|
| GER   | POR   | Mario Gómez     |
| NED   | GER   | Mario Gómez     |
| NED   | GER   | Mario Gómez     |
| IRL   | CRO   | Mario Mandžukic |
| IRL   | CRO   | Mario Mandžukic |
| ITA   | CRO   | Mario Mandžukic |
| ITA   | IRL   | Mario Balotelli |
| GER   | ITA   | Mario Balotelli |
| GER   | ITA   | Mario Balotelli |

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`

```
SELECT player, teamid, coach, gtime FROM goal
JOIN eteam ON (goal.teamid = eteam.id)
WHERE gtime<=10
```

Submit SQL

Restore default

### Correct answer

| player          | teamid | coach              | gtime |
|-----------------|--------|--------------------|-------|
| Petr Jiráček    | CZE    | Michal Bilek       | 3     |
| Václav Pilar    | CZE    | Michal Bilek       | 6     |
| Mario Mandžukic | CRO    | Slaven Bilic       | 3     |
| Fernando Torres | ESP    | Vicente del Bosque | 4     |

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.

```
SELECT mdate, teamname FROM game
JOIN eteam ON (game.team1=eteam.id)
WHERE coach='Fernando Santos'
```

Submit SQL

Restore default

### Correct answer

| mdate               | teamname |
|---------------------|----------|
| 2012-06-12T00:00:00 | Greece   |
| 2012-06-16T00:00:00 | Greece   |

7. 😊

List the player for every goal scored in a game where the stadium was 'National Stadium, Warsaw'

```
SELECT player FROM goal
JOIN game ON (goal.matchid=game.id)
WHERE stadium='National Stadium, Warsaw'
```

Submit SQL Restore default

Correct answer

| player               |
|----------------------|
| Dimitris Salpingidis |
| Robert Lewandowski   |
| Jakub Blaszczykowski |
| Alan Dzagoev         |
| Giorgos Karagounis   |
| Cristiano Ronaldo    |
| Mesut Özil           |

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.

HINT

Select goals scored only by non-German players in matches where GER was the id of either **team1** or **team2**.

You can use `teamid != 'GER'` to prevent listing German players.

You can use `DISTINCT` to stop players being listed twice.

```
SELECT DISTINCT player FROM game
JOIN goal ON (goal.matchid=game.id)
WHERE (team1='GER' OR team2='GER')
AND teamid != 'GER'
```

Submit SQL Restore default

Correct answer

| player               |
|----------------------|
| Dimitris Salpingidis |
| Georgios Samaras     |
| Mario Balotelli      |
| Michael Krohn-Dehli  |
| Robin van Persie     |

9. 😊

Show teamname and the total number of goals scored.

COUNT and GROUP BY

You should COUNT(\*) in the SELECT line and GROUP BY teamname

```
SELECT teamname, COUNT(player) goals_scored
FROM eteam JOIN goal
ON (eteam.id=goal.teamid)
GROUP BY teamname
```

Submit SQL Restore default

Correct answer

| teamname       | goals_scored |
|----------------|--------------|
| Croatia        | 4            |
| Czech Republic | 4            |
| Denmark        | 4            |
| England        | 5            |
| France         | 3            |
| Germany        | 10           |
| Greece         | 5            |

10. 😊

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

```
SELECT stadium, COUNT(player) goals_scored
FROM game JOIN goal ON (game.id=goal.matchid)
GROUP BY stadium
```

Submit SQL

Restore default

Correct answer

| stadium                             | goals_scored |
|-------------------------------------|--------------|
| Arena Lviv                          | 9            |
| Donbass Arena                       | 7            |
| Metalist Stadium                    | 7            |
| National Stadium, Warsaw            | 9            |
| Olimpiyskiy National Sports Complex | 14           |
| PGE Arena Gdansk                    | 13           |
| Stadion Miejski (Poznan)            | 8            |

11. 😊

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

```
SELECT matchid, mdate, COUNT(player) goals_scored
FROM game JOIN goal ON (game.id=goal.matchid)
WHERE (team1='POL' OR team2='POL')
GROUP BY matchid, mdate
```

Submit SQL

Restore default

Correct answer

| matchid | mdate               | goals_scored |
|---------|---------------------|--------------|
| 1001    | 2012-06-08T00:00:00 | 2            |
| 1004    | 2012-06-12T00:00:00 | 2            |
| 1005    | 2012-06-16T00:00:00 | 1            |

## 12. 😊

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

```
SELECT matchid, mdate, COUNT(player) goals_scored
FROM game JOIN goal ON (game.id=goal.matchid)
WHERE (team1='GER' OR team2='GER') AND (teamid='GER')
GROUP BY matchid, mdate
```

Submit SQL

Restore default

### Correct answer

| matchid | mdate               | goals_scored |
|---------|---------------------|--------------|
| 1008    | 2012-06-09T00:00:00 | 1            |
| 1010    | 2012-06-13T00:00:00 | 2            |
| 1012    | 2012-06-17T00:00:00 | 2            |
| 1026    | 2012-06-22T00:00:00 | 4            |
| 1030    | 2012-06-28T00:00:00 | 1            |

## 13. 😊

List every match with the goals scored by each team as shown. This will use "CASE WHEN" which has not been explained in any previous exercises.

| mdate        | team1 | score1 | team2 | score2 |
|--------------|-------|--------|-------|--------|
| 1 July 2012  | ESP   | 4      | ITA   | 0      |
| 10 June 2012 | ESP   | 1      | ITA   | 1      |
| 10 June 2012 | IRL   | 1      | CRO   | 3      |
| ...          |       |        |       |        |

Notice in the query given every goal is listed. If it was a team1 goal then a 1 appears in score1, otherwise there is a 0. You could SUM this column to get a count of the goals scored by team1. **Sort your result by mdate, matchid, team1 and team2.**

```
SELECT mdate,
team1, SUM(CASE WHEN (teamid=team1) THEN 1 ELSE 0 END)score1,
team2, SUM(CASE WHEN (teamid=team2) THEN 1 ELSE 0 END)score2
FROM game
LEFT JOIN goal ON (matchid=id)
GROUP BY mdate, matchid, team1, team2;
```

Submit SQL

Restore default

### Correct answer

| mdate               | team1 | score1 | team2 | score2 |
|---------------------|-------|--------|-------|--------|
| 2012-06-08T00:00:00 | POL   | 1      | GRE   | 1      |
| 2012-06-08T00:00:00 | RUS   | 4      | CZE   | 1      |
| 2012-06-09T00:00:00 | NED   | 0      | DEN   | 1      |
| 2012-06-09T00:00:00 | GER   | 1      | POR   | 0      |
| 2012-06-10T00:00:00 | ESP   | 1      | ITA   | 1      |
| 2012-06-10T00:00:00 | IRL   | 1      | CRO   | 3      |
| 2012-06-11T00:00:00 | FRA   | 1      | ENG   | 1      |