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, or time

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

SELECT matchid, player FROM goal WHERE teamid LIKE '%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

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 goal.teamid = 'GER'

Submit SQL

restore default

## Correct answer

id	stadium	team1	team2
1012	Arena Lviv	DEN	GER

player	teamid	stadium	mdate
Mario Gómez	GER	Arena Lviv	9 June 2012
Mario Gómez	GER	Metalist Stadium	13 June 2012
Mario Gómez	GER	Metalist Stadium	13 June 2012
Lukas Podolski	GER	Arena Lviv	17 June 2012
Lars Bender	GER	Arena Lviv	17 June 2012
Philipp Lahm	GER	PGE Arena Gdansk	22 June 2012
Sami Khedira	GER	PGE Arena Gdansk	22 June 2012

4.



Use the same  $\left| \mbox{{\tt JOIN}} \right|$  as in the previous question.

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

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

Submit SQL

restore default

## Correct answer

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

5.



The table eteam gives details of every national tearn 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  $\leftarrow$ =10

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

Submit SQL

restore default

### Correct answer

player	teamid	coach	gtime
Petr Jirácek	CZE	Michal Bílek	3
Václav Pilar	CZE	Michal Bílek	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 team I coach.

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

Submit SQL

restore default

7



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

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

Submit SQL

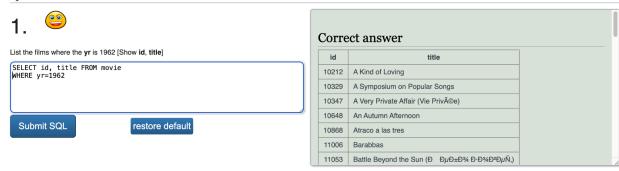
restore default

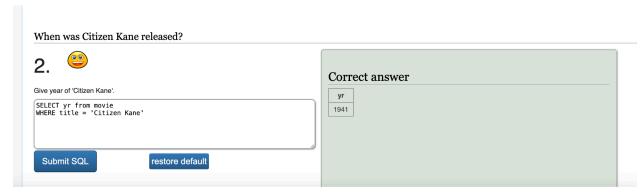
## Correct answer

mdate	teamname
12 June 2012	Greece
16 June 2012	Greece

player
Robert Lewandowski
Dimitris Salpingidis
Alan Dzagoev
Jakub Blaszczykowsl
Giorgos Karagounis
Cristiano Ronaldo
Mario Balotelli

## 1962 movies





## Star Trek movies





List all of the Star Trek movies, include the **id**, **title** and **yr** (all of these movies include the words Star Trek in the title). Order results by year.



## Correct answer

id	title	yr
17772	Star Trek: The Motion Picture	1979
17775	Star Trek II: The Wrath of Khan	1982
17776	Star Trek III: The Search for Spock	1984
17777	Star Trek IV: The Voyage Home	1986
17779	Star Trek V: The Final Frontier	1989
17780	Star Trek VI: The Undiscovered Country	1991
17774	Star Trek Generations	1994

## id for actor Glenn Close





What id number does the actor 'Glenn Close' have?

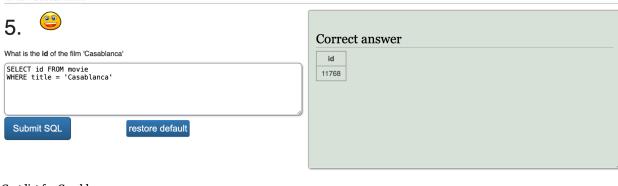
SELECT id FROM actor WHERE name = 'Glenn Close'

Submit SQL

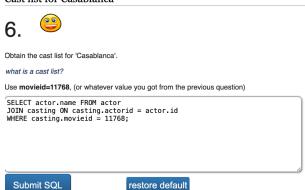
restore default

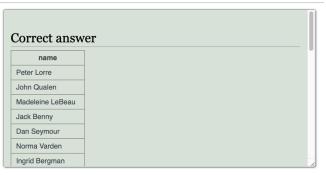


## id for Casablanca



## Cast list for Casablanca





Alien cast list



Obtain the cast list for the film 'Alien'

SELECT actor.name FROM actor JOIN casting ON casting.actorid = actor.id JOIN movie ON movie.id = casting.movieid WHERE movie.title = 'Alien';



restore default

## Correct answer John Hurt Sigourney Weaver Yaphet Kotto Harry Dean Stanton Ian Holm Tom Skerritt Veronica Cartwright

## Harrison Ford movies





List the films in which 'Harrison Ford' has appeared

SELECT movie.title FROM movie
JOIN casting ON casting.movieid = movie.id
JOIN actor ON actor.id = casting.actorid
WHERE actor.name = 'Harrison Ford';

Submit SQL

restore default



## Harrison Ford as a supporting actor





List the films where 'Harrison Ford' has appeared - but not in the starring role. [Note: the  ${f ord}$ field of casting gives the position of the actor. If ord=1 then this actor is in the starring role]

SELECT movie.title FROM movie JOIN casting ON casting.movieid = movie.id JOIN actor ON actor.id = casting.actorid WHERE actor.name = 'Harrison Ford' AND casting.ord != 1;



restore default

### Lead actors in 1962 movies





List the films together with the leading star for all 1962 films.

SELECT movie.title, actor.name FROM movie JOIN casting ON casting.movieid = movie.id JOIN actor ON actor.id = casting.actorid WHERE movie.yr = 1962 AND casting.ord = 1;



restore default

# Correct answer

title	name
A Kind of Loving	Alan Bates
A Symposium on Popular Songs	Paul Frees
A Very Private Affair (Vie Privée)	Brigitte Bardot
An Autumn Afternoon	Chishu Ryu
Atraco a las tres	José Luis López Vázquez
Barabbas	Anthony Quinn
Battle Beyond the Sun (Đ ĐưĐ+Đ¾ Đ·Đ¾Đ²ĐuÑ.)	Aleksandr Shvorin

## NULL, INNER JOIN, LEFT JOIN, RIGHT JOIN





List the teachers who have NULL for their department.

Why we cannot use =

SELECT name FROM teacher WHERE dept IS Null

Submit SQL

restore default

## Correct answer

Correct answer

A Hundred and One Nights

Dead Heat on a Merry-Go-Round Extraordinary Measures

Force 10 From Navarone

American Graffiti Apocalypse Now Cowboys & Aliens

Spiregrain Deadyawn





Note the INNER JOIN misses the teachers with no department and the departments with no teacher.

SELECT teacher.name, dept.name FROM teacher INNER JOIN dept ON (teacher.dept=dept.id)

Submit SQL

restore default

name	name
Shrivell	Computing
Throd	Computing
Splint	Computing
Cutflower	Design

3.



Use a different JOIN so that all teachers are listed.

SELECT teacher.name, dept.name FROM teacher LEFT JOIN dept ON (teacher.dept=dept.id)

Submit SQL

restore default

## Correct answer

name	name
Shrivell	Computing
Throd	Computing
Splint	Computing
Spiregrain	
Cutflower	Design
Deadyawn	

4.



Use a different JOIN so that all departments are listed.

SELECT teacher.name, dept.name FROM teacher RIGHT JOIN dept ON (teacher.dept=dept.id)

Submit SQL

restore default

## Correct answer

name	name
Shrivell	Computing
Throd	Computing
Splint	Computing
Cutflower	Design
	Engineering

5.



Use COALESCE to print the mobile number. Use the number '07986 444 2266' if there is no number given. Show teacher name and mobile number or '07986 444 2266'

SELECT name, COALESCE(mobile, '07986 444 2266') FROM teacher

Submit SQL

restore default

## Correct answer

COALESCE(mobi
07986 555 1234
07122 555 1920
07986 444 2266
07986 444 2266
07996 555 6574
07986 444 2266

6.



Use the COALESCE function and a LEFT JOIN to print the teacher **name** and department name. Use the string 'None' where there is no department.

SELECT COALESCE(teacher.name, 'NONE'), COALESCE(dept.name, 'None') FROM teacher LEFT JOIN dept ON (teacher.dept=dept.id)

Submit SQL

restore default

COALESCE(teac	COALESCE(dept
Shrivell	Computing
Throd	Computing
Splint	Computing
Spiregrain	None
Cutflower	Design
Deadyawn	None