

# MySQL

## DAY -1 Task

### Screenshots of executed queries:

#### Exercise 1 - Tasks

Table: Movies

Id	Title	Director	Year	Length_minutes
1	Toy Story	John Lasseter	1995	81
2	A Bug's Life	John Lasseter	1998	95
3	Toy Story 2	John Lasseter	1999	93
4	Monsters, Inc.	Pete Docter	2001	92
5	Finding Nemo	Andrew Stanton	2003	107
6	The Incredibles	Brad Bird	2004	116
7	Cars	John Lasseter	2006	117
8	Ratatouille	Brad Bird	2007	115
9	WALL-E	Andrew Stanton	2008	104
10	Up	Pete Docter	2009	101

```
-- select Title from movies;  
-- select Director from movies;  
-- select Title,Director from movies;  
-- select Title,Director from movies;  
-- select Title,Year from movies;  
select * from movies;
```

RESET

#### Exercise 1 — Tasks

1. Find the **title** of each film ✓
2. Find the **director** of each film ✓
3. Find the **title** and **director** of each film ✓
4. Find the **title** and **year** of each film ✓
5. Find **all** the information about each film ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue ›

## Exercise 2 - Tasks

Table: Movies

Title	Year
Toy Story	1995
A Bug's Life	1998
Toy Story 2	1999
Monsters, Inc.	2001
Finding Nemo	2003

### Exercise 2 — Tasks

- Find the movie with a row **id** of 6 ✓
- Find the movies released in the **year** s between 2000 and 2010 ✓
- Find the movies **not** released in the **year** s between 2000 and 2010 ✓
- Find the first 5 Pixar movies and their release **year** ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue >

```
-- SELECT * FROM movies where id=6;
-- select * from movies where year BETWEEN 2000 AND 2010
SELECT Title, year from movies where id between 1 and 5
-- select * from movies where year NOT BETWEEN 2000 AND 2010
```

RESET

## Exercise 3 - Tasks

Table: Movies

Id	Title	Director	Year	Length_minutes
9	WALL-E	Andrew Stanton	2008	104
87	WALL-G	Brenda Chapman	2042	97

### Exercise 3 — Tasks

- Find all the Toy Story movies ✓
- Find all the movies directed by John Lasseter ✓
- Find all the movies (and director) not directed by John Lasseter ✓
- Find all the WALL-\* movies ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue >

```
select * from movies where title like "WALL-_"
-- select title,director from movies where director not like "John
  Lasseter";
-- select Title,director from movies where director NOT IN ("John
  Lasseter")
-- select title,director from movies where director != "John Lasseter"
```

RESET

## Exercise 4 - Tasks

Table: Movies

Id	Title	Director	Year	Length_minutes
11	Monsters University	Dan Scanlon	2013	110
6	Monsters, Inc.	Pete Docter	2001	92
9	Ratatouille	Brad Bird	2007	115
10	The Incredibles	Brad Bird	2004	116
13	Toy Story	John Lasseter	1995	81

Exercise 4 — Tasks

1. List all directors of Pixar movies (alphabetically), without duplicates ✓
2. List the last four Pixar movies released (ordered from most recent to least) ✓
3. List the **first** five Pixar movies sorted alphabetically ✓
4. List the **next** five Pixar movies sorted alphabetically ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue >

```
-- SELECT DISTINCT Director FROM movies order by director asc;  
-- select * from movies order by year desc limit 4;  
-- select * from movies order by title asc limit 5;  
select * from movies order by title asc limit 5 offset 5
```

RESET

## Exercise 5 - Tasks

Table: North\_american\_cities

City	Population
------	------------

Review 1 — Tasks

1. List all the Canadian cities and their populations ✓
2. Order all the cities in the United States by their latitude from north to south ✓
3. List all the cities west of Chicago, ordered from west to east ✓
4. List the two largest cities in Mexico (by population) ✓
5. List the third and fourth largest cities (by population) in the United States and their population ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue >

```
-- ORDER BY Longitude asc;  
--select city from North_american_cities where country="Mexico" order by  
  population desc limit 2  
select city,population from North_american_cities where country="United  
  States" order by population desc limit 2 offset 2
```

RESET

## Exercise 6 - Tasks

Query Results

Title	Rating
WALL-E	8.5
Toy Story 3	8.4
Toy Story	8.3
Up	8.3
Finding Nemo	8.2
Monsters, Inc.	8.1
Ratatouille	8
The Incredibles	8
Toy Story 2	7.9
Monsters University	7.4

```
SELECT m.Title, b.Rating
FROM Movies m
JOIN Boxoffice b ON m.Id = b.Movie_id
ORDER BY b.Rating DESC;
-- SELECT m.Title, b.Domestic_sales, b.International_sales
-- FROM Movies m
-- JOIN Boxoffice b ON m.Id = b.Movie_id
```

RESET

Exercise 6 — Tasks

- Find the domestic and international sales for each movie ✓
- Show the sales numbers for each movie that did better internationally rather than domestically ✓
- List all the movies by their ratings in descending order ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue ›

## Exercise 7 - Tasks

Query Results

Building_name	Role
1e	Engineer
1e	Manager
1w	
2e	
2w	Artist
2w	Manager

```
SELECT DISTINCT building_name, role
FROM buildings
LEFT JOIN employees
ON building_name = building;
```

RESET

Exercise 7 — Tasks

- Find the list of all buildings that have employees ✓
- Find the list of all buildings and their capacity ✓
- List all buildings and the distinct employee roles in each building (including empty buildings) ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue ›

## Exercise 8 - Tasks

Building\_name

1w

2e

```
SELECT DISTINCT building_name
FROM buildings
  LEFT JOIN employees
    ON building_name = building
WHERE role IS NULL;
```

RESET

Exercise 8 — Tasks

1. Find the name and role of all employees who have not been assigned to a building ✓

2. Find the names of the buildings that hold no employees ✓

Stuck? Read this task's [Solution](#).

Solve all tasks to continue to the next lesson.

Continue ›

## Exercise 9 - Tasks

Query Results

Title	Year
A Bug's Life	1998
The Incredibles	2004
Cars	2006
WALL-E	2008
Toy Story 3	2010
Brave	2012

```
SELECT title, year
FROM movies
WHERE year % 2 = 0;
```

RESET

Exercise 9 — Tasks

1. List all movies and their combined sales in **millions** of dollars ✓

2. List all movies and their ratings **in percent** ✓

3. List all movies that were released on even number years ✓

Stuck? Read this task's [Solution](#).

Solve all tasks to continue to the next lesson.

Continue ›

## Exercise 10 - Tasks

Table: Employees

Building	Total_years_employed
1e	29
2w	36

Exercise 10 — Tasks

1. Find the longest time that an employee has been at the studio ✓
2. For each role, find the average number of years employed by employees in that role ✓
3. Find the total number of employee years worked in each building ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue ›

```
-- select role, AVG(years_employed) as Average_years_employed
-- from employees
-- GROUP BY role;
-- select MAX(years_employed) as Max_years_employed
-- from employees;
select building, SUM(years_employed) as Total_years_employed
from employees
```

RESET

## Exercise 11 - Tasks

Table: Employees

Role	SUM(Years_employed)
Engineer	17

Exercise 11 — Tasks

1. Find the number of Artists in the studio (without a **HAVING** clause) ✓
2. Find the number of Employees of each role in the studio ✓
3. Find the total number of years employed by all Engineers ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue ›

```
select role, SUM(years_employed)
from employees
group BY role
having role = "Engineer";
-- select role, COUNT(*)
-- FROM employees
-- GROUP BY role;
```

RESET

## Exercise 12 - Tasks

Query Results

Director	Num_movies_directed
Andrew Stanton	2
Brad Bird	2
Brenda Chapman	1
Dan Scanlon	1
John Lasseter	5
Lee Unkrich	1
Pete Docter	2

```
select director, count(id) as Num_movies_directed
from movies
group by director;

-- select director, SUM(domestic_sales + international_sales) as
--   Cumulative_sales_from_all_movies
-- FROM movies
```

RESET

Exercise 12 — Tasks

1. Find the number of movies each director has directed ✓

2. Find the total domestic and international sales that can be attributed to each director ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue ›

## Exercise 13 - Tasks

Query Results

Movie_id	Rating	Domestic_sales	International_sales
3	7.9	245852179	239163000
1	8.3	191796233	170162503
2	7.2	162798565	200600000
4	8.7	340000000	270000000

|

RUN QUERY RESET

Exercise 13 — Tasks

1. Add the studio's new production, **Toy Story 4** to the list of movies (you can use any director) ✓

2. Toy Story 4 has been released to critical acclaim! It had a rating of **8.7**, and made **340 million domestically** and **270 million internationally**. Add the record to the **BoxOffice** table. ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue ›

## Exercise 14 - Tasks

Id	Title	Director	Year	Length_minutes
1	Toy Story	John Lasseter	1995	81
2	A Bug's Life	John Lasseter	1998	95
3	Toy Story 2	John Lasseter	1999	93
4	Monsters, Inc.	Pete Docter	2001	92
5	Finding Nemo	Andrew Stanton	2003	107
6	The Incredibles	Brad Bird	2004	116
7	Cars	John Lasseter	2006	117
8	Ratatouille	Brad Bird	2007	115
9	WALL-E	Andrew Stanton	2008	104
10	Up	Pete Docter	2009	101

```
-- UPDATE movies
-- SET director = "John Lasseter"
-- WHERE id = 2;
```

RUN QUERY RESET

Exercise 14 — Tasks

1. The director for A Bug's Life is incorrect, it was actually directed by **John Lasseter** ✓
2. The year that Toy Story 2 was released is incorrect, it was actually released in **1999** ✓
3. Both the title and director for Toy Story 8 is incorrect! The title should be "Toy Story 3" and it was directed by **Lee Unkrich** ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue >

## Exercise 15 - Tasks

Id	Title	Director	Year	Length_minutes
7	Cars	John Lasseter	2006	117
8	Ratatouille	Brad Bird	2007	115
10	Up	Pete Docter	2009	101
11	Toy Story 3	Lee Unkrich	2010	103
12	Cars 2	John Lasseter	2011	120
13	Brave	Brenda Chapman	2012	102
14	Monsters University	Dan Scanlon	2013	110

```
-- delete from movies
-- where year < 2005;

delete from movies
where director = "Andrew Stanton";
```

RUN QUERY RESET

Exercise 15 — Tasks

1. This database is getting too big, lets remove all movies that were released **before** 2005. ✓
2. Andrew Stanton has also left the studio, so please remove all movies directed by him. ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue >



## Exercise 16 - Tasks

Table: Database

Name	Version	Download_count
SQLite	3.9	92000000
MySQL	5.5	512000000
Postgres	9.4	384000000

```
CREATE TABLE Database (  
  Name text,  
  Version float,  
  Download_count integer  
);
```

[RUN QUERY](#) [RESET](#)

### Exercise 16 — Tasks

1. Create a new table named **Database** with the following columns:
  - **Name** A string (text) describing the name of the database
  - **Version** A number (floating point) of the latest version of this database
  - **Download\_count** An integer count of the number of times this database was downloaded

This table has no constraints. ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

[Continue ›](#)

## Exercise 17 - Tasks

Table: Movies

Id	Title	Director	Year	Length_minutes	Aspect_ratio	Language
1	Toy Story	John Lasseter	1995	81	2.39	English
2	A Bug's Life	John Lasseter	1998	95	2.39	English
3	Toy Story 2	John Lasseter	1999	93	2.39	English
4	Monsters, Inc.	Pete Docter	2001	92	2.39	English
5	Finding Nemo	Andrew Stanton	2003	107	2.39	English
6	The Incredibles	Brad Bird	2004	116	2.39	English
7	Cars	John Lasseter	2006	117	2.39	English
8	Ratatouille	Brad Bird	2007	115	2.39	English
9	WALL-E	Andrew Stanton	2008	104	2.39	English
Incomplete SQL query	Pete Docter	2009	101	2.39	English	

```
ALTER TABLE Movies  
  ADD column Language TEXT DEFAULT "English";
```

[RUN QUERY](#) [RESET](#)

### Exercise 17 — Tasks

1. Add a column named **Aspect\_ratio** with a **FLOAT** data type to store the aspect-ratio each movie was released in. ✓
2. Add another column named **Language** with a **TEXT** data type to store the language that the movie was released in. Ensure that the default for this language is **English**. ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

[Continue ›](#)

## Exercise 18 - Tasks

Query results

Id	Title	Director	Year	Length_minutes
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Exercise 18 — Tasks

1. We've sadly reached the end of our lessons, lets clean up by removing the **Movies** table ✓
2. And drop the **BoxOffice** table as well ✓

Stuck? Read this task's [Solution](#).  
Solve all tasks to continue to the next lesson.

Continue >

```
DROP TABLE BoxOffice;
```

RUN QUERY RESET



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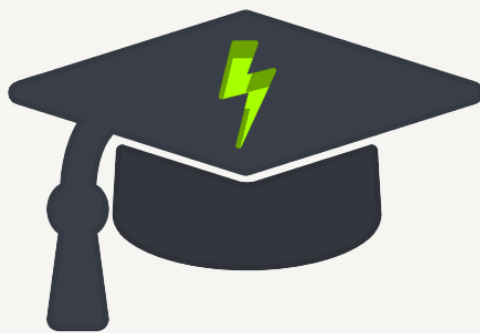


Interactive Tutorial



More Topics

### SQL Lesson X: To infinity and beyond!



You've finished the tutorial!

We hope the lessons have given you a bit more experience with SQL and a bit more confidence to use SQL