

Database- Day -1: MySQL TASK

All exercise are completed successfully

EXERCISE :1

properties of each movie. To continue onto the next lesson, alter the query to find the exact information we need for each task.

Table: Movies

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
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

```
SELECT * FROM movies;
```

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.

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EXERCISE :2

Using the right constraints, find the information we need from the **Movies** table for each task below.

Table: Movies

Title
Toy Story
A Bug's Life
Toy Story 2
Monsters, Inc.
Finding Nemo

```
select title from movies WHERE year LIMIT 5 ;
```

Exercise 2 — Tasks

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

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Solve all tasks to continue to the next lesson.

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EXERCISE :3

Table: Movies

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

`SELECT * FROM movies WHERE Title like "WALL%";`

Exercise 3 — Tasks

1. Find all the Toy Story movies ✓
2. Find all the movies directed by John Lasseter ✓
3. Find all the movies (and director) not directed by John Lasseter ✓
4. Find all the WALL-* movies ✓

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Solve all tasks to continue to the next lesson.

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EXERCISE :4

might see in real life. Try and use the necessary keywords and clauses introduced above in your queries.

Table: Movies

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

`select * from movies order by Title asc limit 5 offset 5 ;`

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.

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EXERCISE :5

Lesson to learn about queries that span multiple tables.

Table: North_american_cities

City	Country	Population
Chicago	United States	2718782
Houston	United States	2195914

```
SELECT City, Country, Population
FROM north_american_cities
WHERE Country = 'United States'
ORDER BY Population DESC
LIMIT 2 OFFSET 2;
```

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 ✓

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Solve all tasks to continue to the next lesson.

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EXERCISE :6

Query Results

Id	Title	Director	Year	Length_minutes	Rating
9	WALL-E	Andrew Stanton	2008	104	8.5
11	Toy Story 3	Lee Unkrich	2010	103	8.4
1	Toy Story	John Lasseter	1995	81	8.3
10	Up	Pete Docter	2009	101	8.3
5	Finding Nemo	Andrew Stanton	2003	107	8.2
4	Monsters, Inc.	Pete Docter	2001	92	8.1
8	Ratatouille	Brad Bird	2007	115	8
6	The Incredibles	Brad Bird	2004	116	8
3	Toy Story 2	John Lasseter	1999	93	7.9
14	Monsters University	Dan Scanlon	2013	110	7.4

```
SELECT m.Id, m.Title, m.Director, m.Year, m.Length_minutes, b.Rating
FROM Movies m
JOIN Boxoffice b ON m.Id = b.Movie_id
ORDER BY b.Rating DESC;
```

Exercise 6 — Tasks

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

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Solve all tasks to continue to the next lesson.

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Next — SQL Lesson 7: OUTER JOINS
Previous — SQL Review: Simple SELECT Queries

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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;
```

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) ✓

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Next – SQL Lesson 8: A short note on NULLS
Previous – SQL Lesson 6: Multi-table queries with JOINs

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Query Results

Building_name
1w
2e

```
SELECT b.Building_name
FROM Buildings b
LEFT JOIN Employees e ON b.Building_name = e.Building
WHERE e.Building IS NULL;
```

Exercise 8 — Tasks

- Find the name and role of all employees who have not been assigned to a building ✓
- Find the names of the buildings that hold no employees ✓

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Next – SQL Lesson 9: Queries with expressions
Previous – SQL Lesson 7: OUTER JOINS

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sqlbolt.com/lesson/select_queries_with_expressions

13	Brave	Brenda Chapman	2012	102	2	7.2	162798565	200600000
14	Monsters University	Dan Scanlon	2013	110	13	7.2	237283207	301700000

Query Results

Id	Title	Director	Year	Length_minutes
2	A Bug's Life	John Lasseter	1998	95
6	The Incredibles	Brad Bird	2004	116
7	Cars	John Lasseter	2006	117
9	WALL-E	Andrew Stanton	2008	104
11	Toy Story 3	Lee Unkrich	2010	103
13	Brave	Brenda Chapman	2012	102

SELECT *
FROM Movies
WHERE Year % 2 = 0
ORDER BY Year;
|

RESET

Continue >

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 ✓

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Solve all tasks to continue to the next lesson.

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metrics about the teams. Go ahead and give it a shot.

Table: Employees

Building	Total_Years_Worked
1e	29
2w	36

SELECT Building, SUM(Years_employed) AS Total_Years_Worked
FROM Employees
GROUP BY Building;
|

RESET

Continue >

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 ✓

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Solve all tasks to continue to the next lesson.

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For this exercise, you are going to dive deeper into **Employee** data at the film studio. Think about the different clauses you want to apply for each task.

Table: Employees

Total_Years_Engineers

17

SELECT SUM(Years_employed) AS Total_Years_Engineers
FROM Employees
WHERE Role = 'Engineer';

RESET

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 ✓

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Solve all tasks to continue to the next lesson.

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6	The Incredibles	Brad Bird	2004	116	6	8	261441092	370001000
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Query Results

Director

Cumulative_sales_from_all_movies

Andrew Stanton

1458055121

Brad Bird

1255164910

Brenda Chapman

538983207

Dan Scanlon

743559607

John Lasseter

2232208025

Lee Unkrich

1063171911

Pete Docter

1294159000

SELECT director, SUM(domestic_sales + international_sales) as
Cumulative_sales_from_all_movies
FROM movies
INNER JOIN boxoffice
ON movies.id = boxoffice.movie_id
GROUP BY director;

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.

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Query Results

Movie_id	Rating	Domestic_sales	International_sales
3	7.9	245852179	239163000
1	8.3	191796233	170162503
2	7.2	162798565	200600000
15	8.7	340000000	270000000

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. ✓

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Solve all tasks to continue to the next lesson.

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Next — SQL Lesson 14: Updating rows

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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

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** ✓

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Solve all tasks to continue to the next lesson.

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Table: Movies

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

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. ✓

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Next – [SQL Lesson 16: Creating tables](#)
Previous – [SQL Lesson 14: Updating rows](#)

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Table: Database

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

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 downloadedThis table has no constraints. ✓

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Solve all tasks to continue to the next lesson.

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```
CREATE TABLE Database (  
  Name TEXT,  
  Version FLOAT,  
  Download_count INT  
);
```

Next – [SQL Lesson 17: Altering tables](#)
Previous – [SQL Lesson 15: Deleting rows](#)

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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
10	Up	Pete Docter	2009	101	2.39	English

RUN QUERYRESET

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**. ✓

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Next – [SQL Lesson 18: Dropping tables](#)

Previous – [SQL Lesson 16: Creating tables](#)

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Query Results

Id	Title	Director	Year	Length_minutes
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RUN QUERYRESET

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](#).

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Next – [SQL Lesson X: To infinity and beyond!](#)

Previous – [SQL Lesson 17: Altering tables](#)

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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