

SQLBolt - Learn SQL - SQL Lesson

sqlbolt.com/lesson/select_queries_introduction

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

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 * 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.

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https://sqlbolt.com/lesson/select_queries_with_constraints

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sqlbolt.com/lesson/select_queries_with_constraints

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

Table: Movies

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

```
SELECT title, year FROM movies
WHERE year <= 2003;
```

RESET

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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sqlbolt.com/lesson/filtering_sorting_query_results

Title

Monsters University

Monsters, Inc.

Ratatouille

The Incredibles

Toy Story

```
SELECT title FROM movies
ORDER BY title ASC
LIMIT 5 OFFSET 5;
```

RESET

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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sqlbolt.com/lesson/select_queries_with_constraints_pt_2

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-";

RESET

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 ✓

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

Solve all tasks to continue to the next lesson.

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sqlbolt.com/lesson/select_queries_with_joins

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 title, rating
FROM movies
  JOIN boxoffice
    ON movies.id = boxoffice.movie_id
ORDER BY rating DESC;
```

RESET

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 ✓

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

Solve all tasks to continue to the next lesson.

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Try and write some queries to find the information requested in the tasks you know. You may have to use a different combination of clauses in your query for each task. Once you're done, continue onto the next lesson to learn about queries that span multiple tables.

Table: North_american_cities

City	Population
Chicago	2718782
Houston	2195914

```
SELECT city, population FROM north_american_cities
WHERE country LIKE "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 ✓

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

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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;
```

RESET

Exercise 7 — Tasks

1. Find the list of all buildings that have employees ✓

2. Find the list of all buildings and their capacity ✓

3. 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.

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5

Finding Nemo

Andrew Stanton

2003

107

3

7.9

245852179

239163000

6

The Incredibles

Brad Bird

2004

116

6

8

261441092

370001000

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;
```

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.

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← → ↻ sqlbolt.com/lesson/select_queries_with_nulls ☆ 📱 👤

Query Results

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.

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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

Role	SUM(Years_employed)
Engineer	17

```
SELECT role, SUM(years_employed)
FROM employees
GROUP BY role
HAVING role = "Engineer";
```

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.

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sqlbolt.com/lesson/select_queries_with_aggregates

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

Table: Employees

Building	Total_years_employed
1e	29
2w	36

```
SELECT building, SUM(years_employed) as Total_years_employed
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 ✓

Stuck? Read this task's Solution.

Solve all tasks to continue to the next lesson.

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sqlbolt.com/lesson/select_queries_order_of_execution

5	Finding Nemo	Andrew Stanton	2003	107	3	7.9	245852179	239163000
6	The Incredibles	Brad Bird	2004	116	6	8	261441092	370001000

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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sqlbolt.com/lesson/updating_rows

It looks like some of the information in our **Movies** database might be incorrect, so go ahead and fix them through the exercises below.

Table: Movies

Id	Title	Director	Year	Length_minutes
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UPDATE movies
SET title = "Toy Story 3", director = "Lee Unkrich"
WHERE id = 11;

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.

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sqlbolt.com/lesson/inserting_rows

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

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 >

RUN QUERY

RESET

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sqlbolt.com/lesson/deleting_rows

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. ✓

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

Solve all tasks to continue to the next lesson.

Continue >

RUN QUERY

RESET