

Below are the screenshots of the SQL exercises from 1 to 18

The first screenshot shows the SQLBolt website at the URL `sqlbolt.com/lesson/select_queries_introduction`. It displays a table named 'Movies' with the following data:

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

Below the table, the SQL query `SELECT * FROM movies;` is entered. To the right, 'Exercise 1 — Tasks' lists five tasks, all marked as complete with green checkmarks. A green 'Continue >' button is at the bottom right.

The second screenshot shows the SQLBolt website at the URL `sqlbolt.com/lesson/select_queries_with_constraints`. It displays a filtered view of the 'Movies' table, showing only the titles of the first five movies: Toy Story, A Bug's Life, Toy Story 2, Monsters, Inc., and Finding Nemo. Below the table, the SQL query `SELECT Title from movies where ID<6` is entered. To the right, 'Exercise 2 — Tasks' lists four tasks, all marked as complete with green checkmarks. A green 'Continue >' button is at the bottom right.

sqlbolt.com/lesson/select_queries_with_constraints_pt_2

Table: Movies

Title
WALL-E
WALL-G

```
SELECT Title 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 ✓

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

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sqlbolt.com/lesson/filtering_sorting_query_results

Table: Movies

Title
Monsters University
Monsters, Inc.
Ratatouille
The Incredibles
Toy Story

```
SELECT title 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.

Continue >

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= "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

Id	Title	Director	Year	Length_minutes	Movie_id	Rating	Domestic_sales	International_sa
9	WALL-E	Andrew Stanton	2008	104	9	8.5	223808164	297503696
11	Toy Story 3	Lee Unkrich	2010	103	11	8.4	415004880	648167031
1	Toy Story	John Lasseter	1995	81	1	8.3	191796233	170162503
10	Up	Pete Docter	2009	101	10	8.3	293004164	438338580
5	Finding Nemo	Andrew Stanton	2003	107	5	8.2	380843261	555900000
4	Monsters, Inc.	Pete Docter	2001	92	4	8.1	289916256	272900000

```
SELECT *
FROM movies
JOIN boxoffice
ON movies.id = boxoffice.movie_id
order by 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 ✓

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

Continue >

sqlbolt.com/lesson/select_queries_with_outer_joins

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

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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Next: SQL Lesson 8: A short note on NULLs

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
```

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 >

Artist Tylar S. 2w 2

sqlbolt.com/lesson/select_queries_with_expressions

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

Query Results

```
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_aggregates

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

Table: Employees

Building	SUM(Years_employed)
1e	29
2w	36

```
SELECT building,SUM(years_employed) from employees
group by building
```

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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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.

Continue >

RESET

Query Results

Director	SUM(International_sales+Domestic_sales)
Andrew Stanton	1458055121
Brad Bird	1255164910
Brenda Chapman	538983207
Dan Scanlon	743559607
John Lasseter	2232208025
Lee Unkrich	1063171911
Pete Docter	1294159000

```
SELECT director, SUM(international_sales+domestic_sales) FROM movies
INNER JOIN boxoffice
on movies.id=boxoffice.movie_id
group by director
```

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 >

RESET

Next — [SQL Lesson 13: Inserting rows](#)
Previous — [SQL Lesson 11: Queries with aggregates \(Pt. 2\)](#)

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sqlbolt.com/lesson/deleting_rows

The database needs to be cleaned up a little bit, so try and delete a few rows in the tasks below.

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. ✓

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

RUN QUERY RESET

Continue >

sqlbolt.com/lesson/creating_tables

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. ✓

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

RUN QUERY RESET

Continue >

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

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sqlbolt.com/lesson/altering_tables

Table: Movies

3	Toy Story 2	John Lasseter	1999	93	English
4	Monsters, Inc.	Pete Docter	2001	92	English
5	Finding Nemo	Andrew Stanton	2003	107	English
6	The Incredibles	Brad Bird	2004	116	English
7	Cars	John Lasseter	2006	117	English
8	Ratatouille	Brad Bird	2007	115	English
9	WALL-E	Andrew Stanton	2008	104	English
10	Up	Pete Docter	2009	101	English
11	Toy Story 3	Lee Unkrich	2010	103	English
12	Cars 2	John Lasseter	2011	120	English
13	Brave	Brenda Chapman	2012	102	English

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.

RUN QUERY RESET Continue >

Next — SQL Lesson 18: Dropping tables

sqlbolt.com/lesson/dropping_tables

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.

RUN QUERY RESET Continue >