

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.

Continue >

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5	Finding Nemo	Andrew Stanton	2003	107

```
select * from movies order by title and year desc limit 5;
```

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** ✓

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

Continue >

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-")
```

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.

Continue >

Next – [SQL Lesson 4: Filtering and sorting Query results](#)

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Table: Movies

Title

Monsters University

Monsters, Inc.

Ratatouille

The Incredibles

Toy Story

```
select title from movies order by title 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.

Continue >

Next – [SQL Review: Simple SELECT Queries](#)

Find SQLBolt useful? Please consider

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
```

RESET

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 >

Next – SQL Lesson 6: Multi-table queries with JOINS

Find SQLBolt useful? Please consider

6	The Incredibles	Brad Bird	2004	116	6	8	261441092	370001000
---	-----------------	-----------	------	-----	---	---	-----------	-----------

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 inner join Boxoffice on id=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.

Continue >

[illegible]

RESET

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) ✓

Continue ›

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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.

Continue >

Next – SQL Lesson 9: Queries with expressions

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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 >

Next – [SQL Lesson 10: Queries with aggregates \(Pt. 1\)](#)
Previous – [SQL Lesson 8: A short note on NULLs](#)

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Table: Employees

Sum(Years_employed)	Building
29	1e
36	2w

```
select sum(years_employed) ,building from Employees group by building
```

RESET

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 >

Next – [SQL Lesson 11: Queries with aggregates \(Pt. 2\)](#)
Previous – [SQL Lesson 9: Queries with expressions](#)

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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"
```

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 ✓

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

[Continue >](#)

11 | Tov Story 3 | Lee Unkrich | 2010 | 103

Query Results

Director	Sum(Domestic_sales+International_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(Domestic_sales+International_sales) from movies inner
join boxoffice where id=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.

Continue >

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

```
insert into boxoffice values(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 >

Next – SQL Lesson 14: Updating rows

Find SQLBolt useful? Please consider

through the exercises below.

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
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8	Ratatouille	Brad Bird	2007	115
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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** ✓

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

Continue >

RUN QUERY RESET

Next = [SQL Lesson 15: Deleting rows](#)

Find SQL Bolt useful? Please consider

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

```
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 >

In this exercise, you'll need to create a new table for us to insert some new rows into.

Table: Database

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

SQL query input area with a cursor.

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 >

Table: Movies

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

Next – [SQL Lesson 18: Dropping tables](#)
Previous – [SQL Lesson 16: Creating tables](#)

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Query Results

Id	Title	Director	Year	Length_minutes

drop table boxoffice

RUN QUERY RESET

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 >

Next – SQL Lesson X: To infinity and beyond!

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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 with your own data.

We've just brushed the surface of what SQL is capable of, so to get a better idea of how SQL can be used in the real world, we'll be adding more articles in the [More Topics](#) part of the site. If you have the time, we