We will be using a database with data about some of Pixar's classic movies for most of our exercises. This first exercise will only involve the **Movies** table, and the default query below currently shows all the properties of each movie. To continue onto the next lesson, alter the query to find the exact information we need for each task.

id	Title	Director	Year	Length_minutes	
Ť	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;

Table: Movies

Exercise 1 — Tasks

1. Find the title of each film V

2. Find the  ${\tt director}$  of each film  $\ensuremath{\,\checkmark\,}$ 

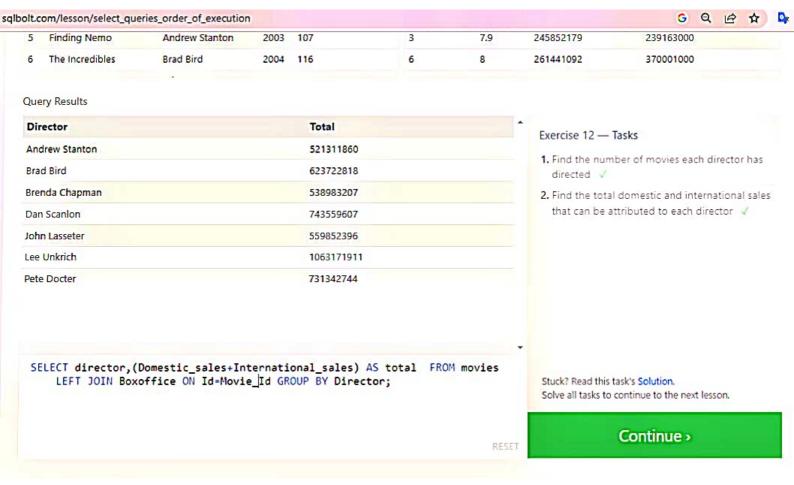
3. Find the title and director of each film

4. Find the title and year of each film  $\checkmark$ 

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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Next - SQL Lesson 13: Inserting rows

Previous - SQL Lesson 11: Queries with aggregates (Pt. 2)

## Exercise

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)	Exercise 11 — Tasks
Engineer	17	<ol> <li>Find the number of Artists in the studio (without a HAVING clause) √</li> </ol>
		<ol> <li>Find the number of Employees of each role in the studio ✓</li> </ol>
		3. Find the total number of years employed by all Engineers ✓
		*
SELECT Role,S	SUM(Years_employed) FROM employees WHERE Role="Engine	er";  Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.

Continue >

## Table: Employees

Role	Name	Building	Years_employed	î	Exercise 10 — Tasks
Engineer	Becky A.	1e	4		
Engineer	Dan B.	1e	2	1	<ol> <li>Find the longest time that an employee has been at the studio</li></ol>
Engineer	Sharon F.	1e	6		2. For each role, find the average number of
Engineer	Dan M.	1e	4		years employed by employees in that role 🗸
Engineer	Malcom S.	1e	1		3. Find the total number of employee years
Artist Tylar S. 2w 2					worked in each building 🗸
Artist	Sherman D.	2w	8		
Artist	Jakob J.	2w	6	EG4	
Artist	Lillia A.	2w	7		
Artist	Brandon J.	2w	7	-	
SELECT *	FROM employees;				Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.
				RESET	Continue >

Next - SQL Lesson 11: Queries with aggregates (Pt. 2)

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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	
4	8.7	340000000	270000000	

## Exercise 13 — Tasks

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

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

RUN QUERY RESET

Continue >

Next – SQL Lesson 14: Updating rows Previous – SQL Lesson 12: Order of execution of a Query

Tabl	le: Movies							
4	Monsters, Inc.	Pete Docter	2001	92	•	Exercise 14 — Tasks		
5	Finding Nemo	Andrew Stanton	2003	107				
6	The Incredibles	Brad Bird	2004	116		<ol> <li>The director for A Bug's Life is incorrect, it was actually directed by John Lasseter </li> </ol>		
7	Cars	John Lasseter	2006	117		2. The year that Toy Story 2 was released is		
8	Ratatouille	Brad Bird	2007	115		incorrect, it was actually released in 1999 V		
9	WALL-E	Andrew Stanton	2008	104		3. Both the title and director for Toy Story 8 is		
10	Up	Pete Docter	2009	101		incorrect! The title should be "Toy Story 3" it was directed by <b>Lee Unkrich</b> \(  \)		
11	Toy Story 3	Lee Unkrich	2010	103		The second of th		
2	Cars 2	John Lasseter	2011	120				
3	Brave	Brenda Chapman	2012	102				
4	Monsters University	Dan Scanlon	2013	110	¥			
l								
						Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.		
						Continue >		

Next – SQL Lesson 15: Deleting rows Previous – SQL Lesson 13: Inserting rows

## Exercise

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

#### Table: Movies

ld	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

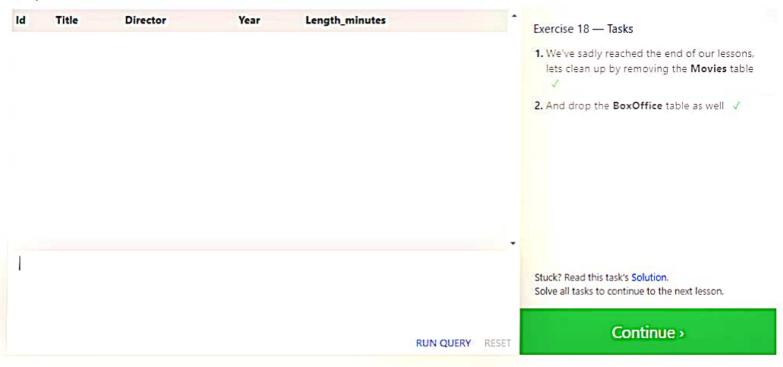
- This database is getting too big, lets remove all movies that were released before 2005.
- Andrew Stanton has also left the studio, so please remove all movies directed by him. ✓

Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.

RUN QUERY RESET

Continue >

## Query Results



Next – SQL Lesson X: To infinity and beyond! Previous – SQL Lesson 17: Altering tables

consult your database docs before proceeding: MySQL, Postgres, SQLite, Microsoft SQL Server.

#### Exercise

Our exercises use an implementation that only support adding new columns, so give that a try below.

#### Table: Movies

ld	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
10	Up	Pete Docter	2009	101	3	English

#### Exercise 17 — Tasks

- Add a column named Aspect\_ratio with a FLOAT data type to store the aspect-ratio each movie was released in.
- 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 >

#### Table: Database

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

## Exercise 16 — Tasks

- 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.

RUN QUERY RESET

Continue >

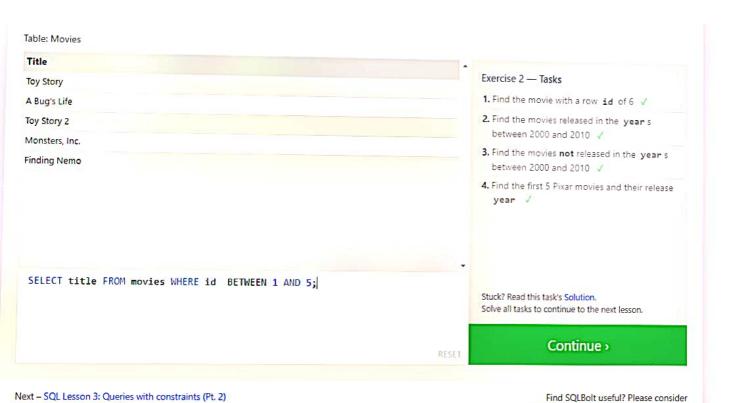
Next – SQL Lesson 17: Altering tables Previous – SQL Lesson 15: Deleting rows



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Next - SQL Lesson 4: Filtering and sorting Query results

Previous - SQL Lesson 2: Queries with constraints (Pt. 1)

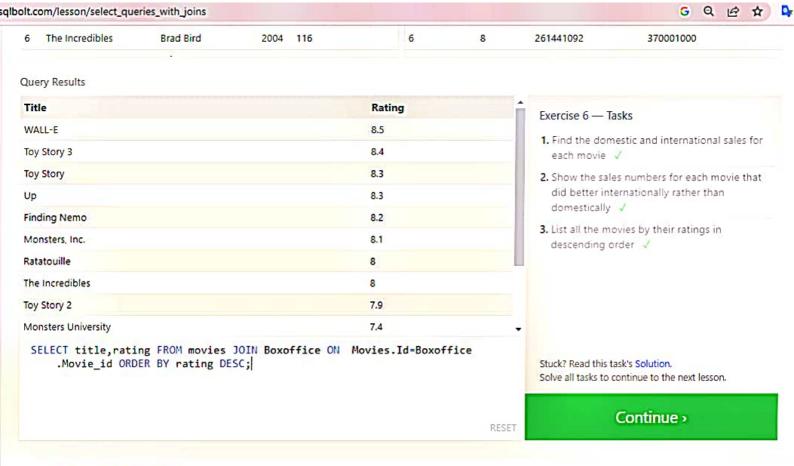


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Previous - SQL Lesson 1: SELECT queries 101



You've finished the tutorial!



Next – SQL Lesson 7: OUTER JOINs Previous – SQL Review: Simple SELECT Queries

# qlbolt.com/lesson/select\_queries\_review

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 🗸

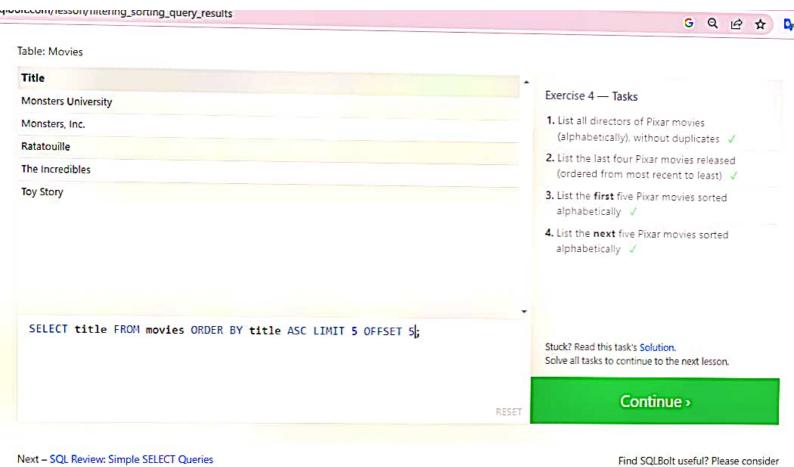
Stuck? Read this task's Solution. Solve all tasks to continue to the next lesson.

RESET

Continue >

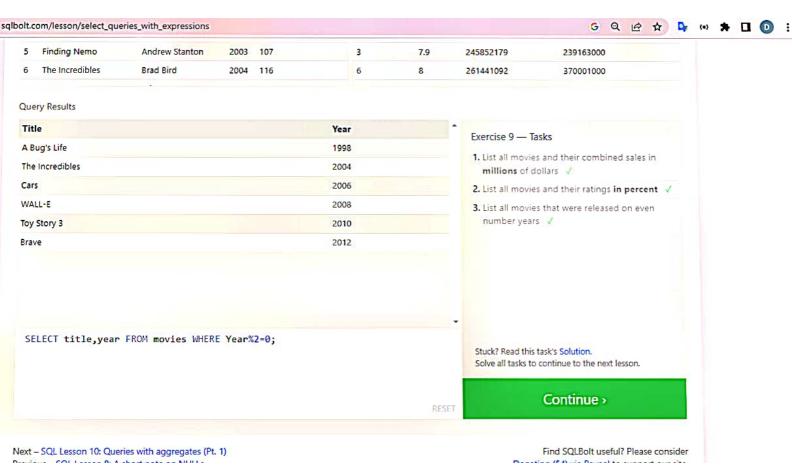
Next - SQL Lesson 6: Multi-table queries with JOINs

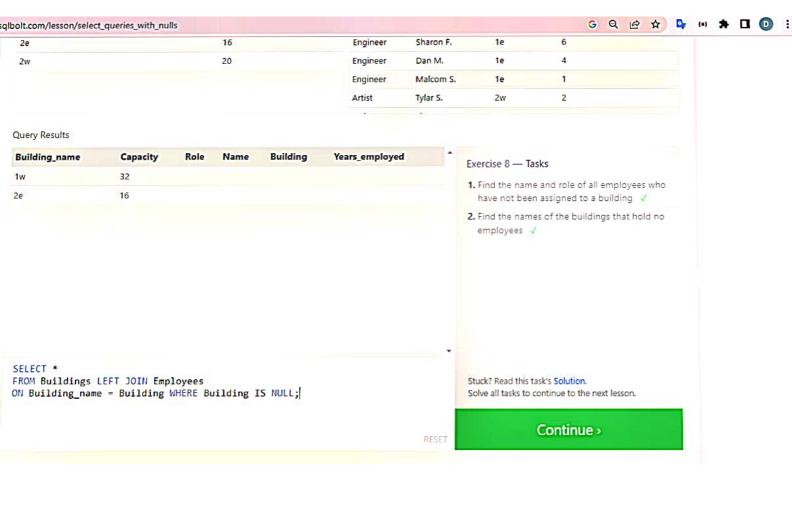
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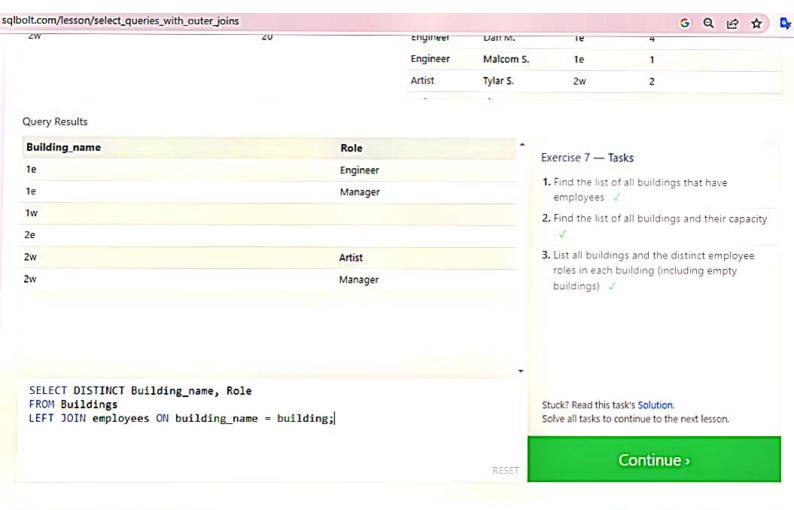


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Previous - SQL Lesson 3: Queries with constraints (Pt. 2)







Next - SQL Lesson 8: A short note on NULLs

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