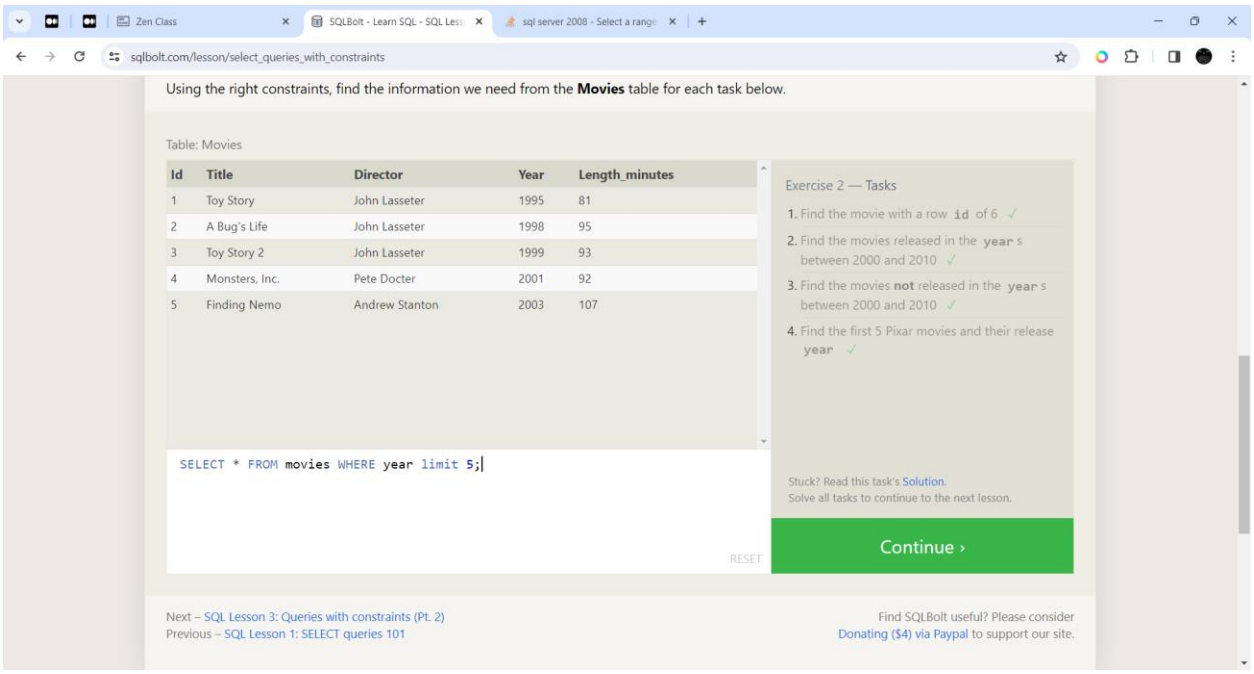
SQL –TASKS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sql server 2008 - Select a range
sqlbolt.com/lesson/select_queries_with_constraints
Using the right constraints, find the information we need from the Movies table for each task below.
Table: Movies
Id Title Director Year Length_minutes
1 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
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
SELECT * FROM movies WHERE year limit 5;
RESET
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
Continue ›
Next – SQL Lesson 3: Queries with constraints (Pt. 2)
Previous – SQL Lesson 1: SELECT queries 101
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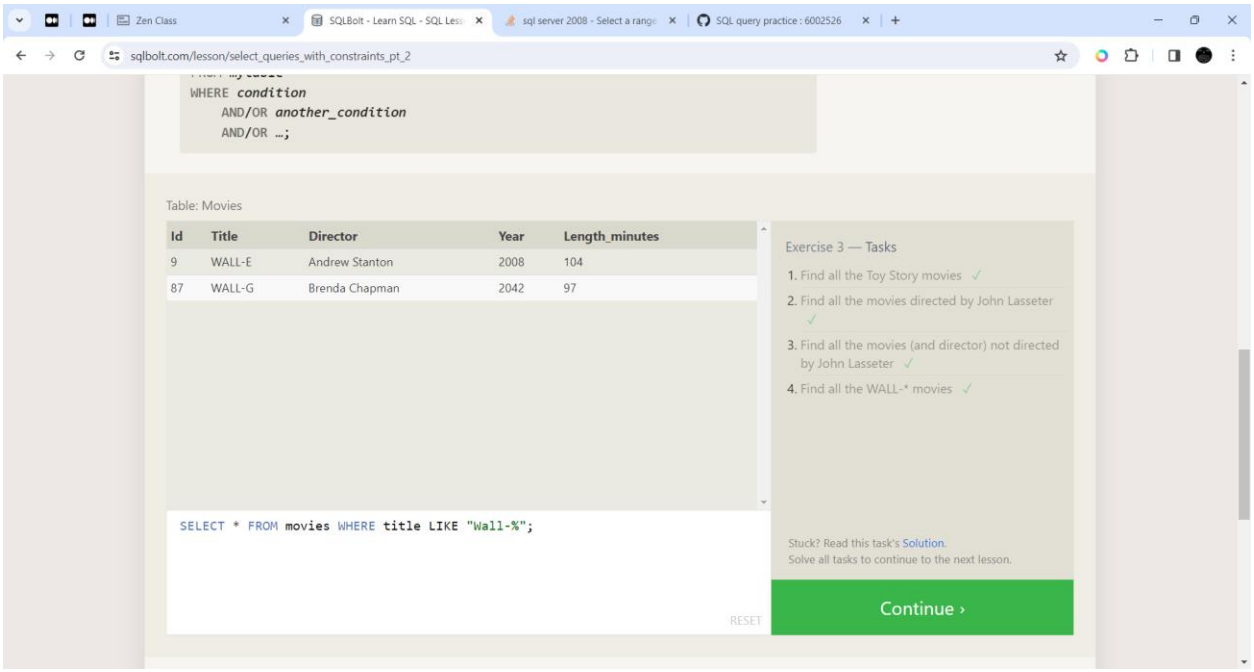
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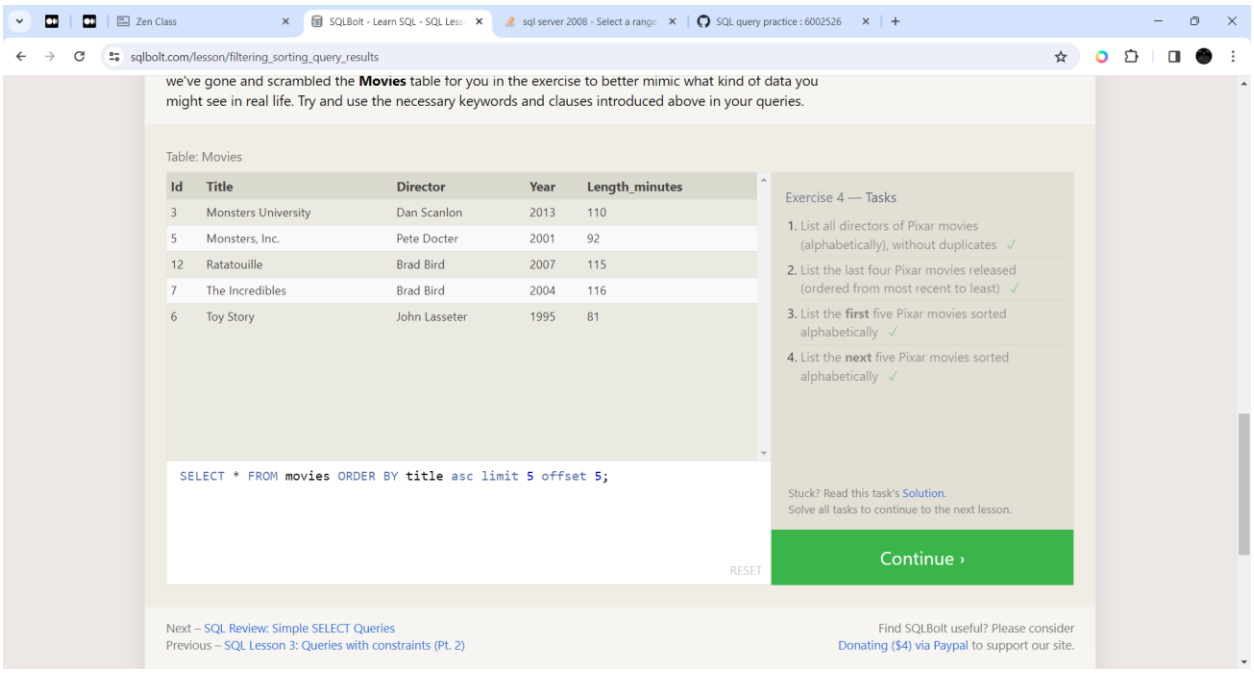
SQL query practice : 6002526
sqlbolt.com/lesson/select_queries_with_constraints_pt_2
WHERE condition
AND/OR another_condition
AND/OR …;
Table: Movies
Id Title Director Year Length_minutes
9 WALL-E Andrew Stanton 2008 104
87 WALL-G Brenda Chapman 2042 97
Exercise 3 — Tasks
1. Find all the Toy Story movies
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
SELECT * FROM movies WHERE title LIKE "Wall-%";
RESET
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
Continue ›



we've gone and scrambled the **Movies** table for you in the exercise to better mimic what kind of data you 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
3	Monsters University	Dan Scanlon	2013	110
5	Monsters, Inc.	Pete Docter	2001	92
12	Ratatouille	Brad Bird	2007	115
7	The Incredibles	Brad Bird	2004	116
6	Toy Story	John Lasseter	1995	81

```
SELECT * 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.

Continue ›

Next – SQL Review: Simple SELECT Queries
Previous – SQL Lesson 3: Queries with constraints (Pt. 2)

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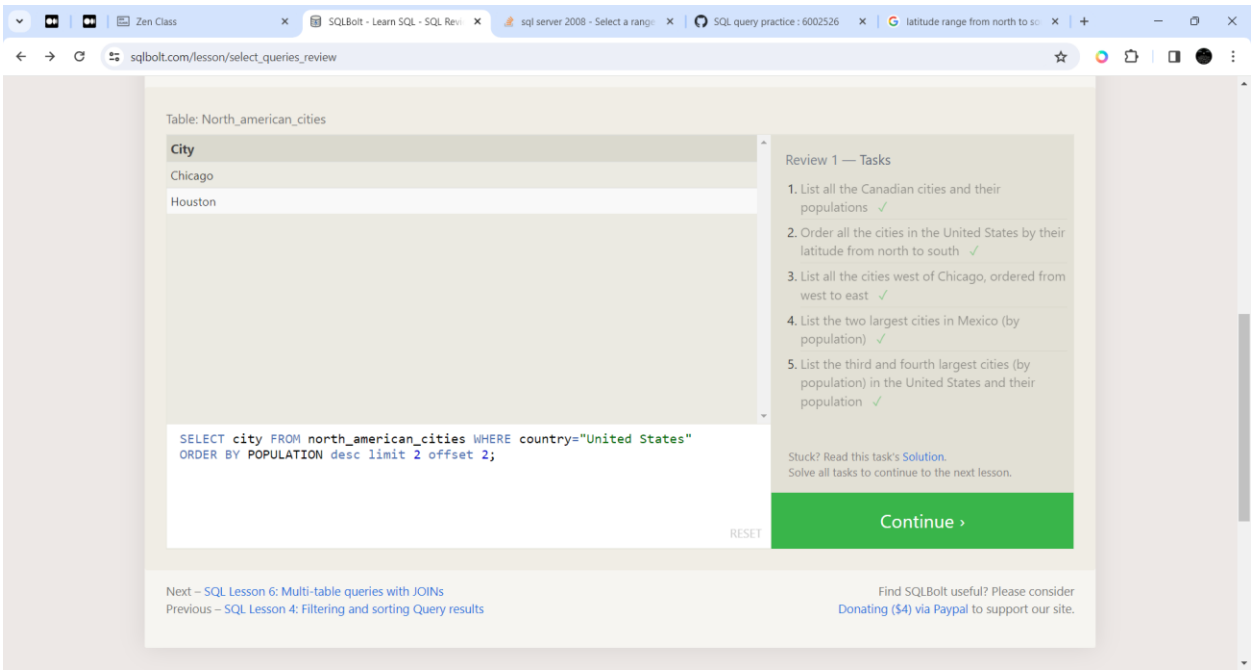

Table: North_american_cities

City
Chicago
Houston

```
SELECT city 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
Previous – SQL Lesson 4: Filtering and sorting Query results

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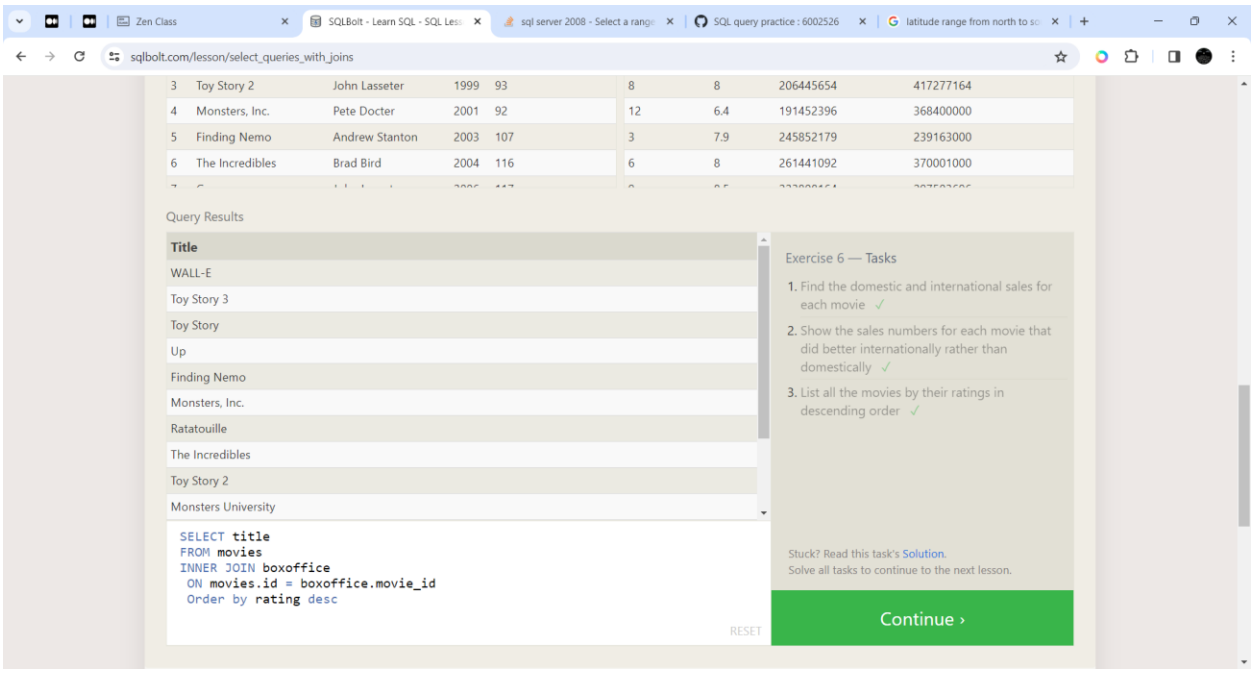
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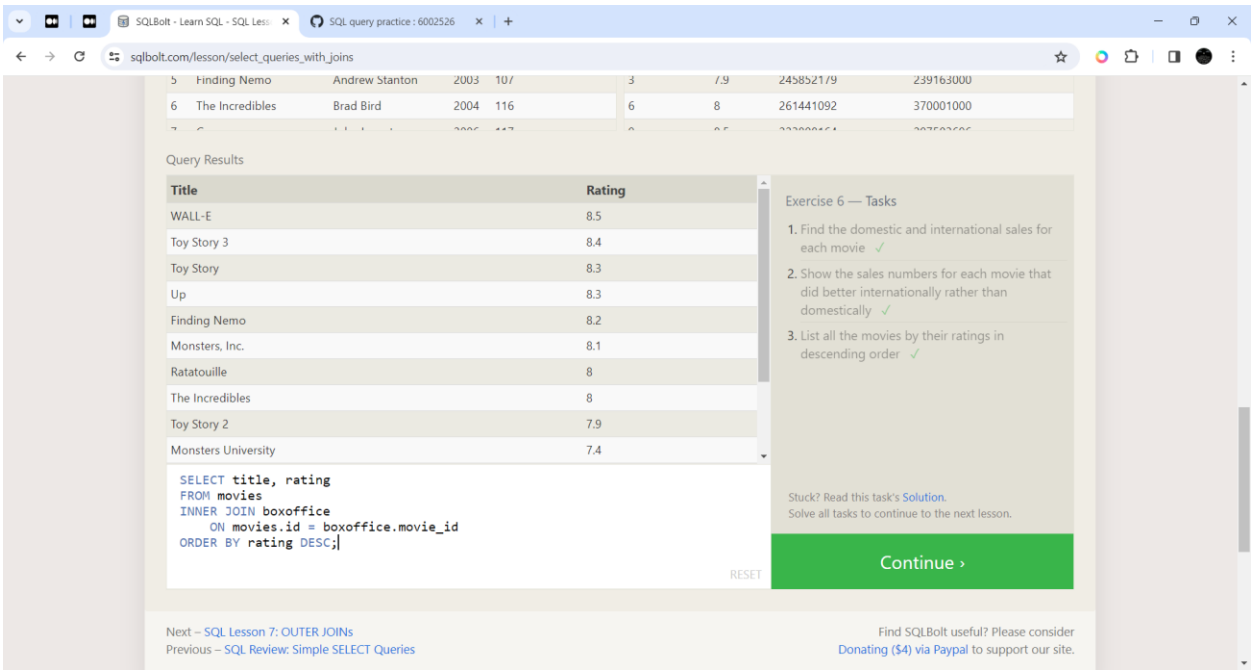
sql server 2008 - Select a range
SQL query practice : 6002526
latitude range from north to so
sqlbolt.com/lesson/select_queries_with_joins
3 Toy Story 2 John Lasseter 1999 93 8 8 206445654 417277164
4 Monsters, Inc. Pete Docter 2001 92 12 6.4 191452396 368400000
5 Finding Nemo Andrew Stanton 2003 107 3 7.9 245852179 239163000
6 The Incredibles Brad Bird 2004 116 6 8 261441092 370001000
Query Results
Title
WALL-E
Toy Story 3
Toy Story
Up
Finding Nemo
Monsters, Inc.
Ratatouille
The Incredibles
Toy Story 2
Monsters University
SELECT title
FROM movies
INNER 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.
Continue ›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SQL query practice : 6002526
sqlbolt.com/lesson/select_queries_with_joins
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 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 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.
Continue ›
Next – SQL Lesson 7: OUTER JOINs
Previous – SQL Review: Simple SELECT Queries
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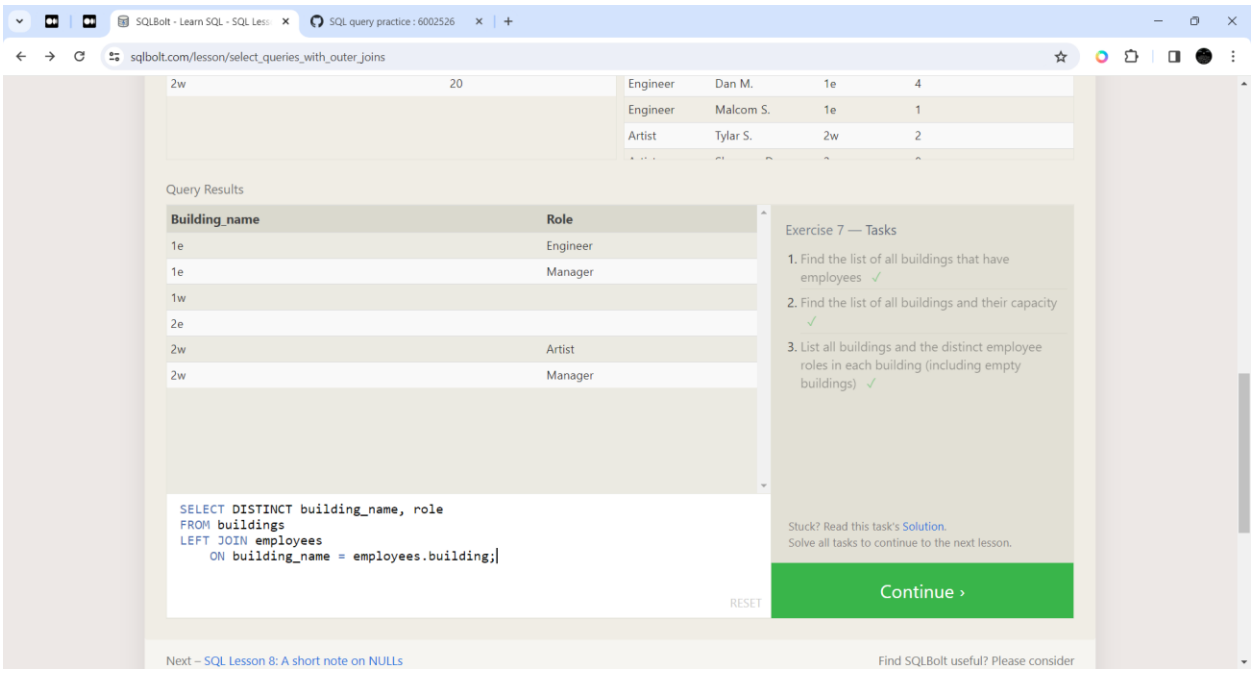
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SQL query practice : 6002526
sqlbolt.com/lesson/select_queries_with_outer_joins
2w 20
Engineer Dan M. 1e 4
Engineer Malcom S. 1e 1
Artist Tylar S. 2w 2
Query Results
Building_name Role
1e Engineer
1e Manager
1w
2e
2w Artist
2w Manager
SELECT DISTINCT building_name, role
FROM buildings
LEFT JOIN employees
ON building_name = employees.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.
Continue ›
Next – SQL Lesson 8: A short note on NULLs
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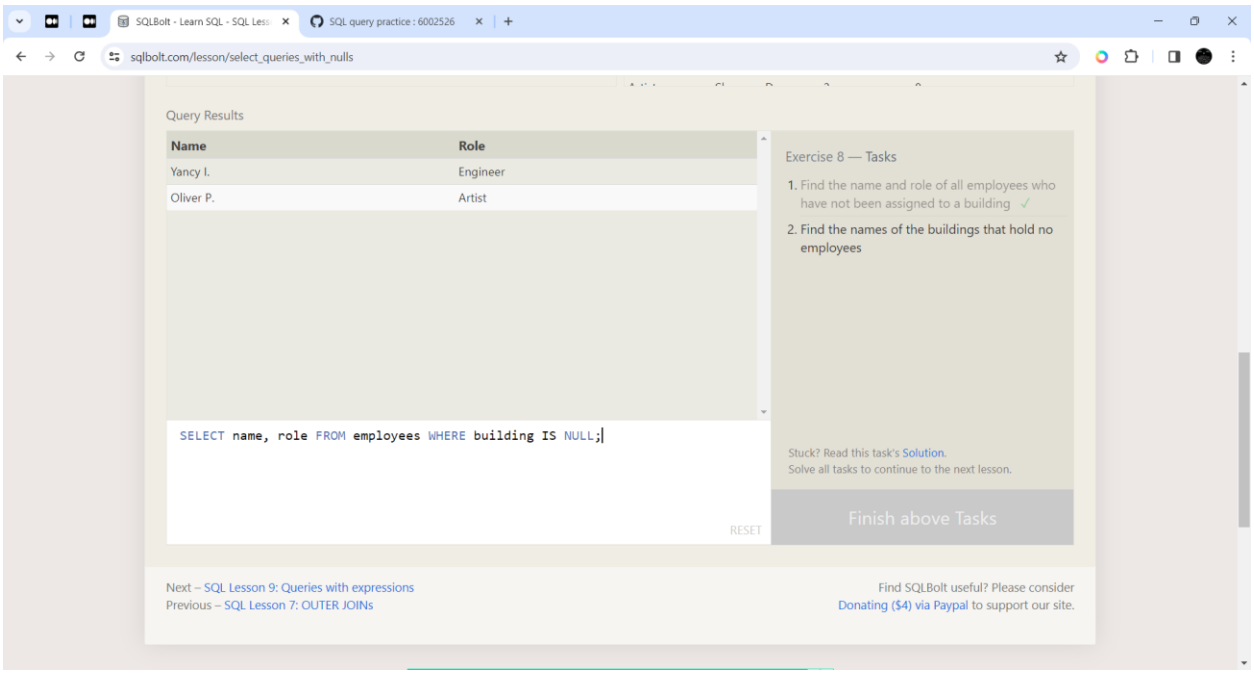
SQLBolt - Learn SQL - SQL Less
SQL query practice : 6002526
sqlbolt.com/lesson/select_queries_with_nulls
Query Results
Name Role
Yancy I. Engineer
Oliver P. Artist
SELECT name, role FROM employees WHERE building IS NULL;
RESET
Exercise 8 — Tasks
1. Find the name and role of all employees who have not 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.
Finish above Tasks
Next – SQL Lesson 9: Queries with expressions
Previous – SQL Lesson 7: OUTER JOINs
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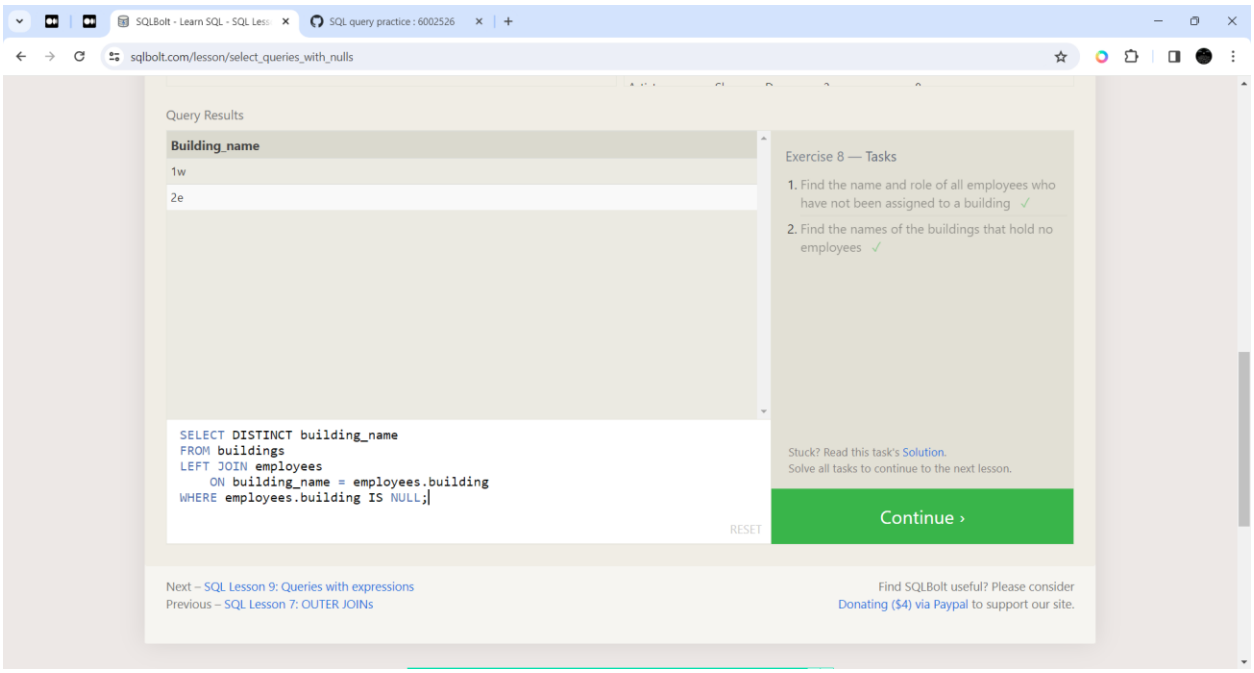
SQLBolt - Learn SQL - SQL Less
SQL query practice : 6002526
sqlbolt.com/lesson/select_queries_with_nulls
Query Results
Building_name
1w
2e
Exercise 8 — Tasks
1. Find the name and role of all employees who have not been assigned to a building ✓
2. Find the names of the buildings that hold no employees ✓
SELECT DISTINCT building_name
FROM buildings
LEFT JOIN employees
ON building_name = employees.building
WHERE employees.building IS NULL;
RESET
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
Continue ›
Next – SQL Lesson 9: Queries with expressions
Previous – SQL Lesson 7: OUTER JOINs
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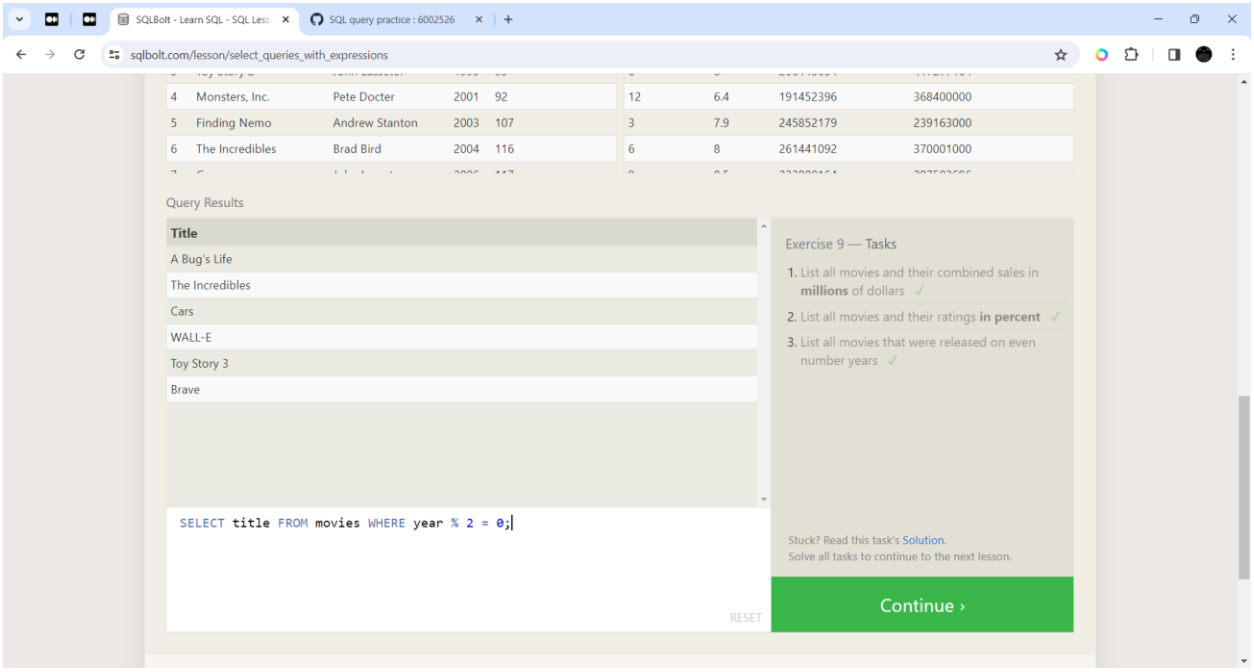
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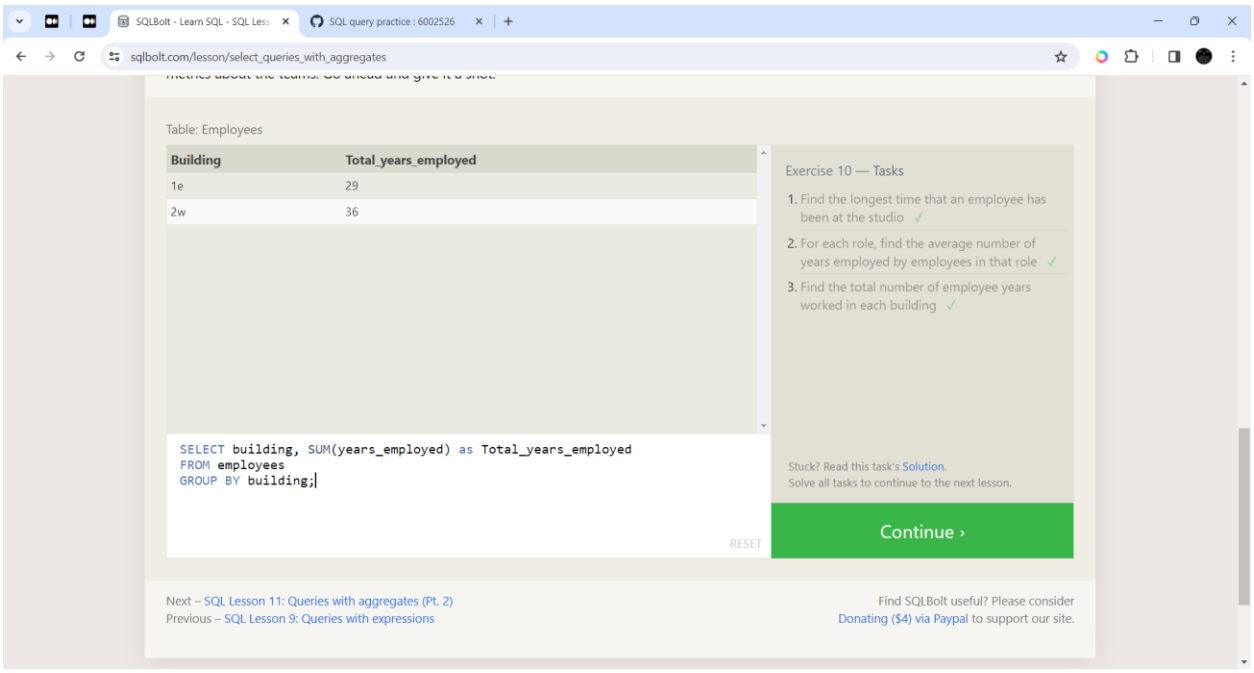
SQL query practice : 6002526
sqlbolt.com/lesson/select_queries_with_expressions
4 Monsters, Inc. Pete Docter 2001 92 12 6.4 191452396 368400000
5 Finding Nemo Andrew Stanton 2003 107 3 7.9 245852179 239163000
6 The Incredibles Brad Bird 2004 116 6 8 261441092 370001000
Query Results
Title
A Bug's Life
The Incredibles
Cars
WALL-E
Toy Story 3
Brave
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 ✓
SELECT title FROM movies WHERE year % 2 = 0;
RESET
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
Continue ›


SQLBolt - Learn SQL - SQL Less
SQL query practice : 6002526
sqlbolt.com/lesson/select_queries_with_aggregates
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
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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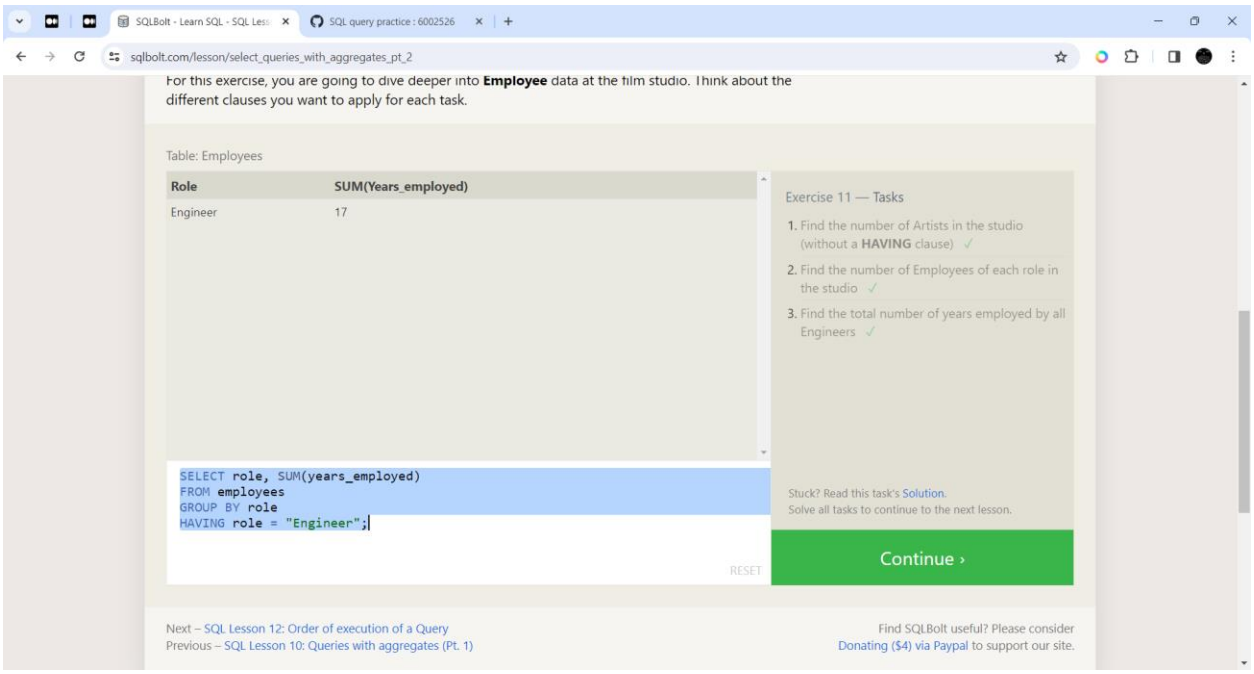
SQLBolt - Learn SQL - SQL Less
SQL query practice : 6002526
sqlbolt.com/lesson/select_queries_with_aggregates_pt_2
For this exercise, you are going to dive deeper into Employee data at the film studio. Think about the different clauses you want to apply for each task.
Table: Employees
Role
SUM(Years_employed)
Engineer
17
SELECT role, SUM(years_employed)
FROM employees
GROUP BY role
HAVING role = "Engineer";
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.
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Next – SQL Lesson 12: Order of execution of a Query
Previous – SQL Lesson 10: Queries with aggregates (Pt. 1)
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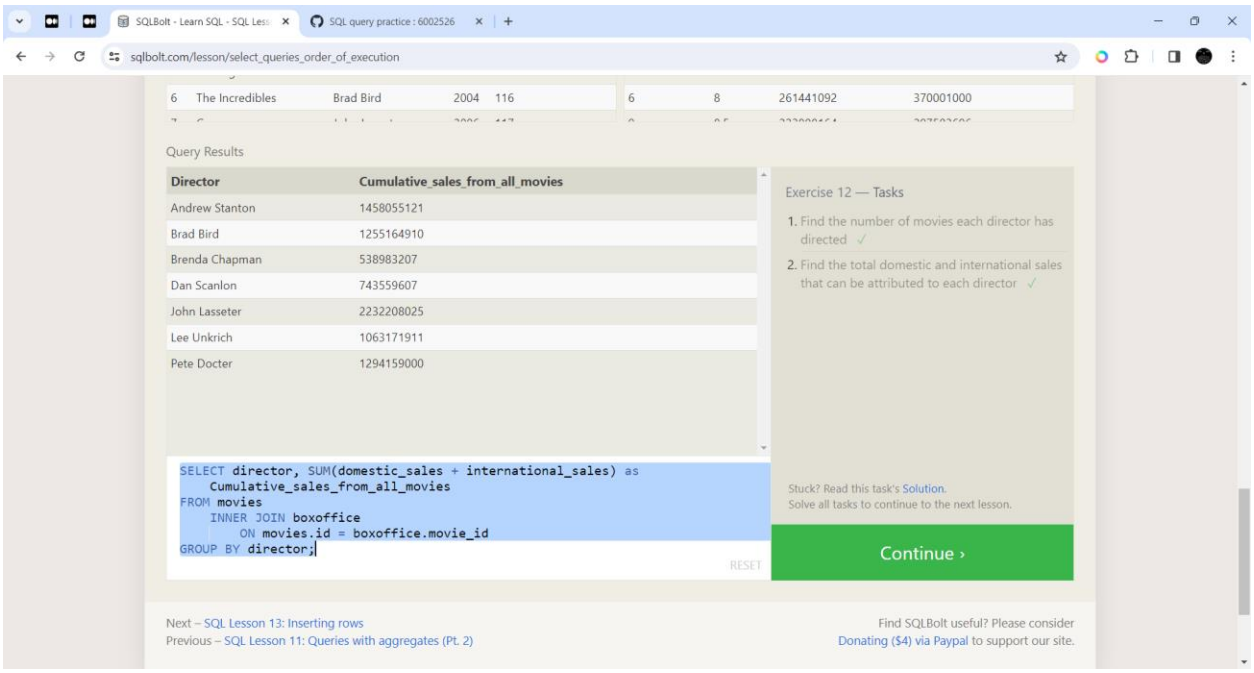
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SQL query practice : 6002526
sqlbolt.com/lesson/select_queries_order_of_execution
6 The Incredibles Brad Bird 2004 116 6 8 261441092 370001000
Query Results
Director | Cumulative_sales_from_all_movies
Andrew Stanton | 1458055121
Brad Bird | 1255164910
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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Next – SQL Lesson 13: Inserting rows
Previous – SQL Lesson 11: Queries with aggregates (Pt. 2)
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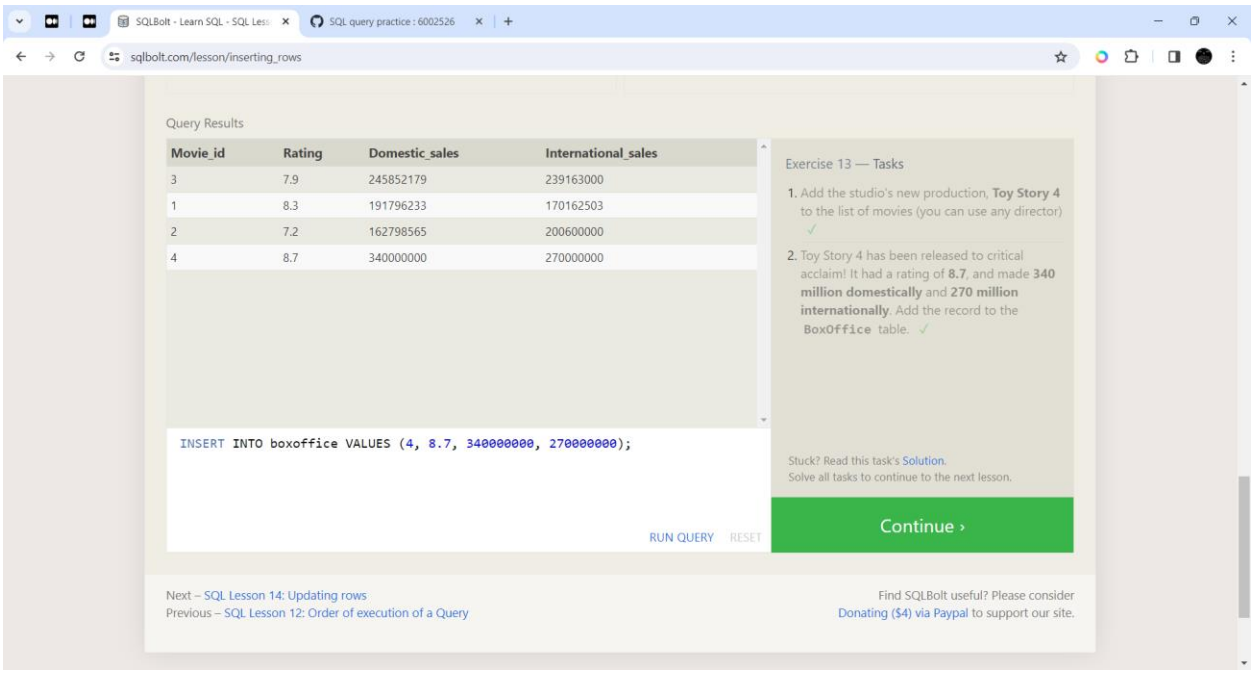
SQLBolt - Learn SQL - SQL Less
SQL query practice : 6002526
sqlbolt.com/lesson/inserting_rows
Query Results
Movie_id | Rating | Domestic_sales | International_sales
3 | 7.9 | 245852179 | 239163000
1 | 8.3 | 191796233 | 170162503
2 | 7.2 | 162798565 | 200600000
4 | 8.7 | 340000000 | 270000000
INSERT INTO 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
Previous – SQL Lesson 12: Order of execution of a Query
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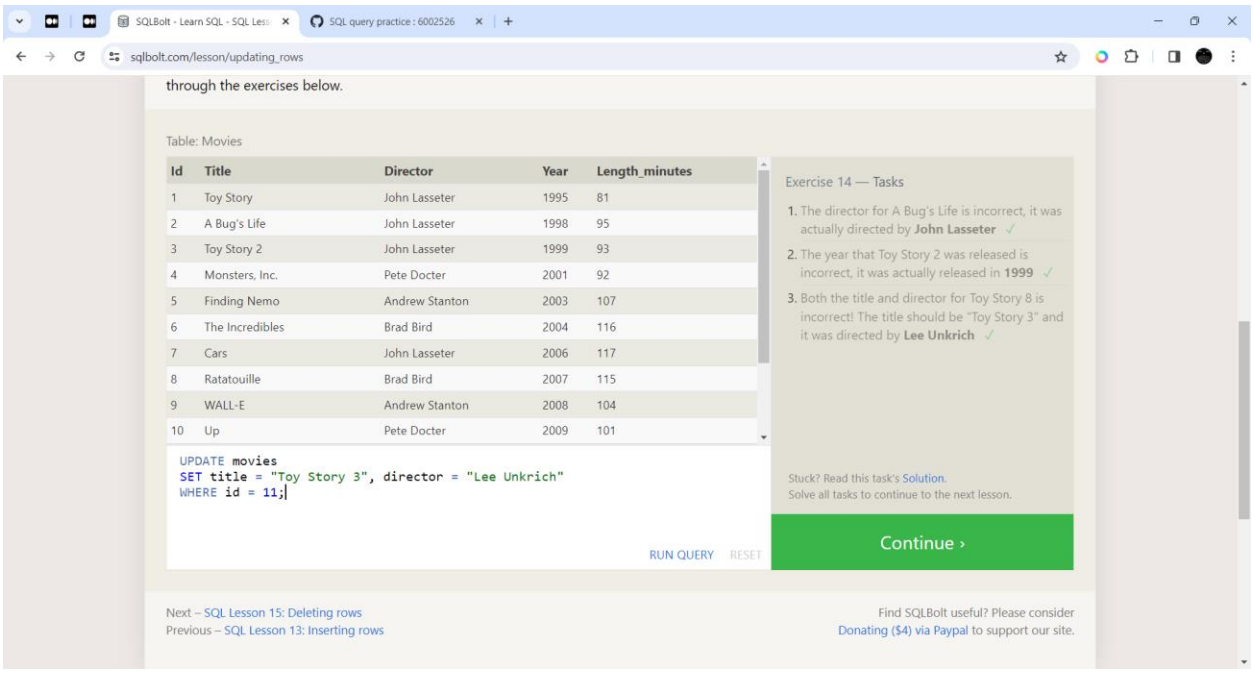

through the exercises below.

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
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

```
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.

Continue ›

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

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once.

Exercise

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";
```

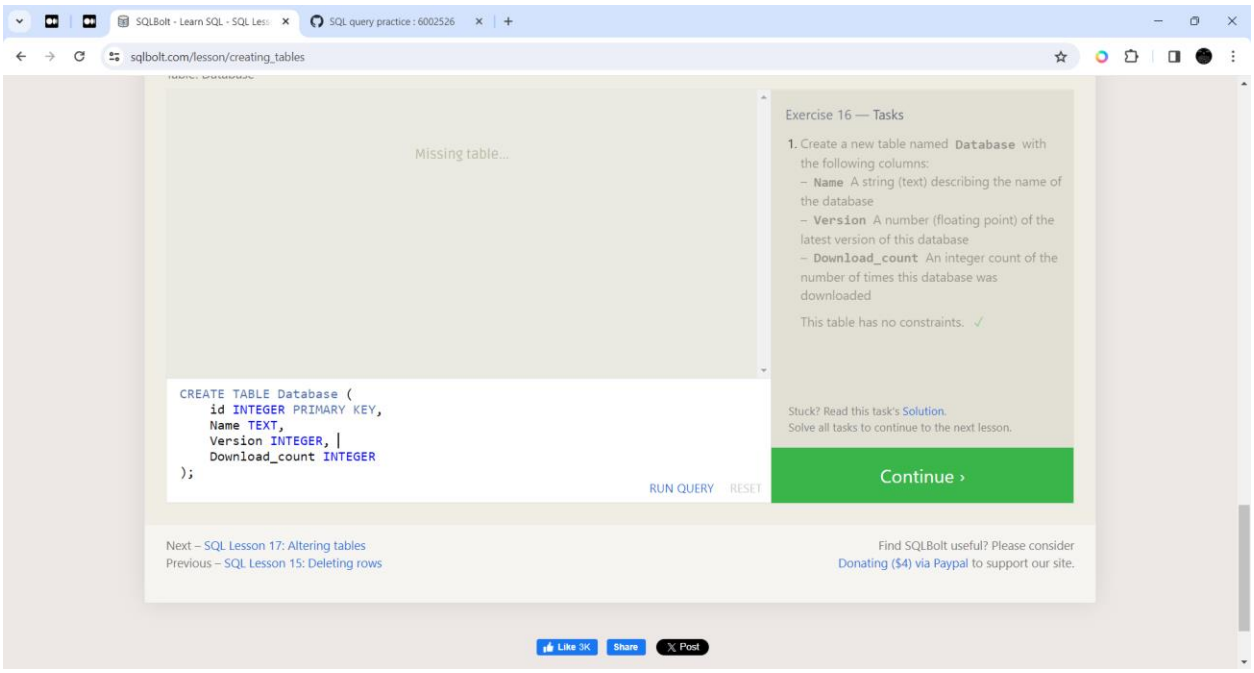
RUN QUERY RESET

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 ›


SQLBolt - Learn SQL - SQL Less
SQL query practice : 6002526
sqlbolt.com/lesson/creating_tables
Missing table...
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. ✓
CREATE TABLE Database (
id INTEGER PRIMARY KEY,
Name TEXT,
Version INTEGER,
Download_count INTEGER
);
RUN QUERY
RESET
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
Continue ›
Next – SQL Lesson 17: Altering tables
Previous – SQL Lesson 15: Deleting rows
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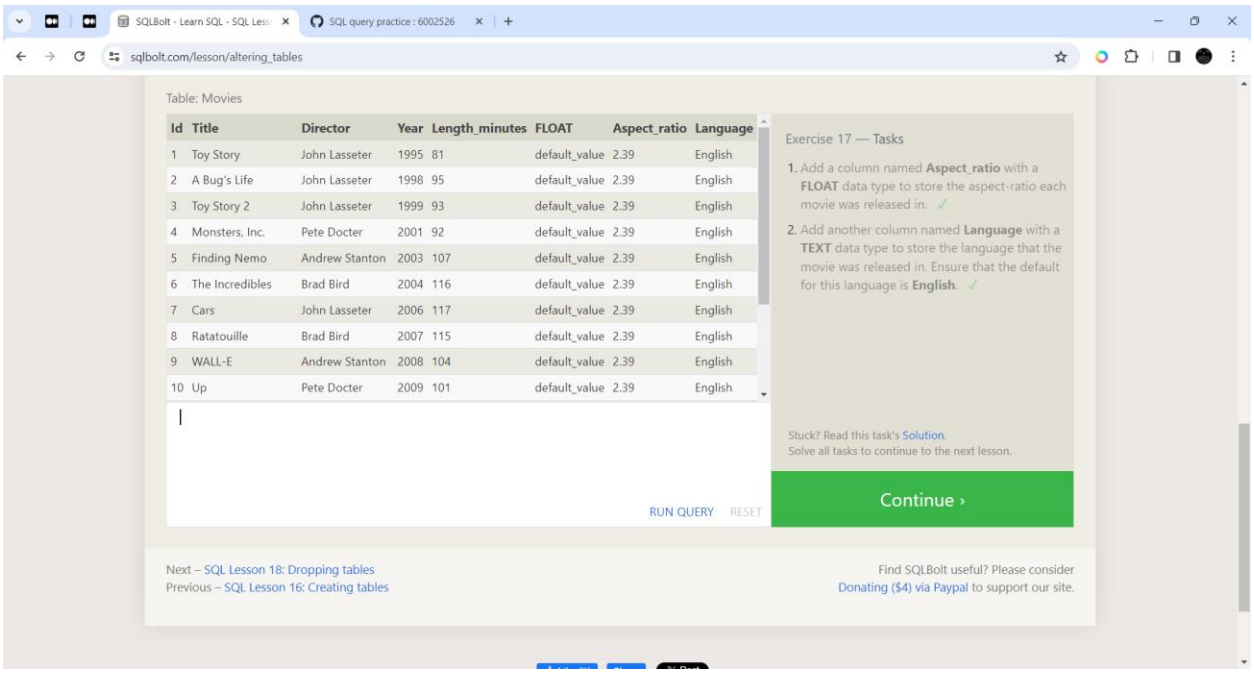
SQLBolt - Learn SQL - SQL Less
SQL query practice : 6002526
sqlbolt.com/lesson/altering_tables
Table: Movies
Id Title Director Year Length_minutes FLOAT Aspect_ratio Language
1 Toy Story John Lasseter 1995 81 default_value 2.39 English
2 A Bug's Life John Lasseter 1998 95 default_value 2.39 English
3 Toy Story 2 John Lasseter 1999 93 default_value 2.39 English
4 Monsters, Inc. Pete Docter 2001 92 default_value 2.39 English
5 Finding Nemo Andrew Stanton 2003 107 default_value 2.39 English
6 The Incredibles Brad Bird 2004 116 default_value 2.39 English
7 Cars John Lasseter 2006 117 default_value 2.39 English
8 Ratatouille Brad Bird 2007 115 default_value 2.39 English
9 WALL-E Andrew Stanton 2008 104 default_value 2.39 English
10 Up Pete Docter 2009 101 default_value 2.39 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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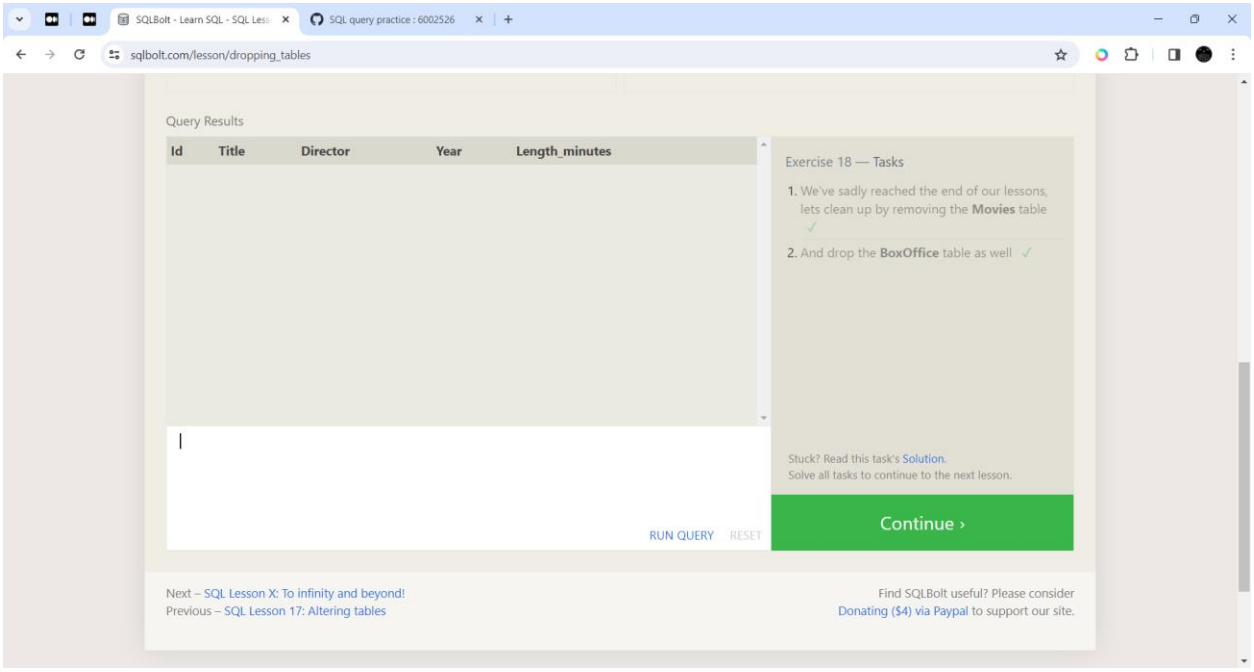
SQLBolt - Learn SQL - SQL Less
SQL query practice : 6002526
sqlbolt.com/lesson/dropping_tables
Query Results
Id Title Director Year Length_minutes
RUN QUERY
RESET
Exercise 18 — Tasks
1. We've sadly reached the end of our lessons, lets clean up by removing the Movies table
2. And drop the BoxOffice table 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!
Previous – SQL Lesson 17: Altering tables
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