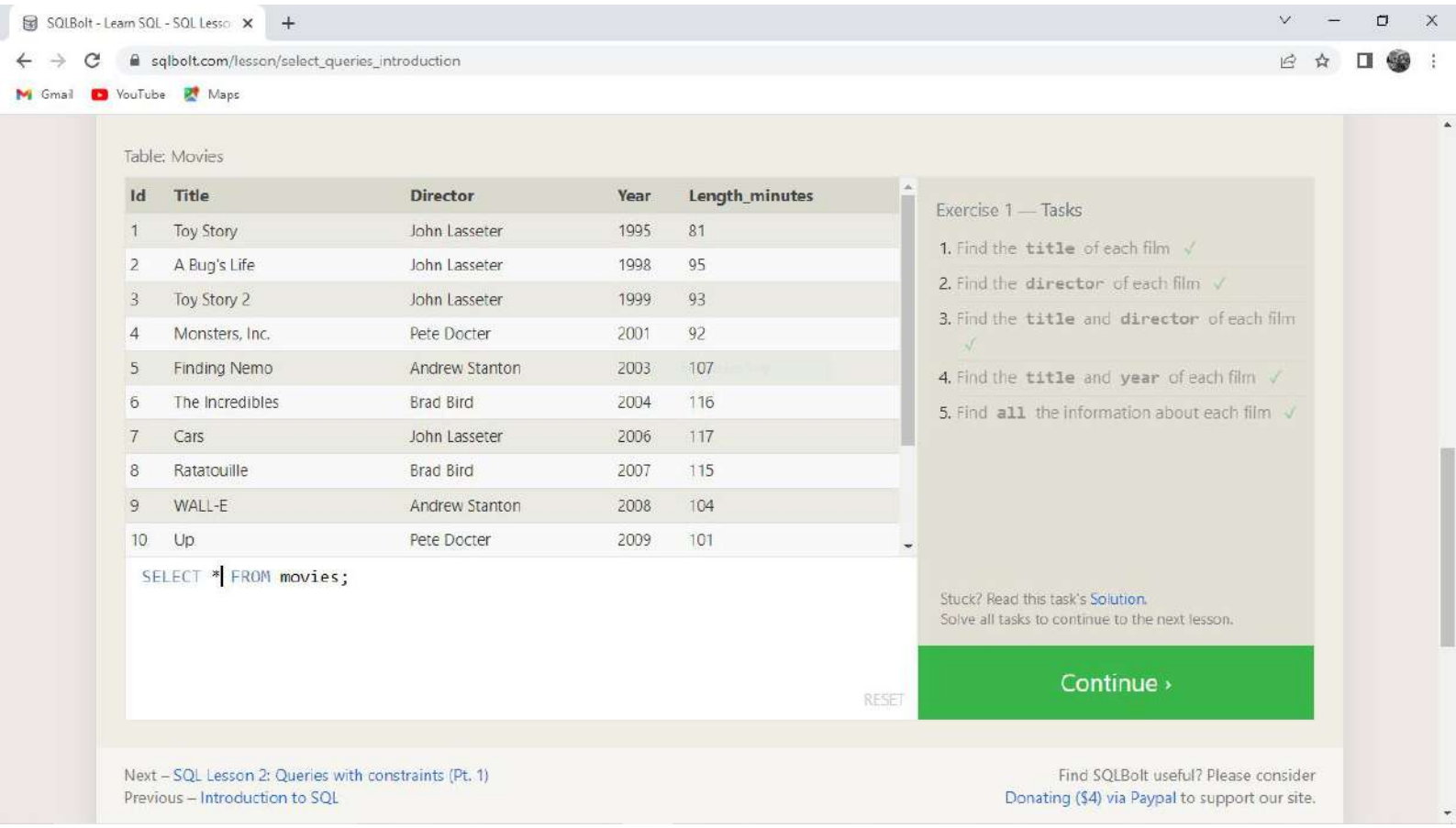
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Table: Movies
Id Title Director Year Length_minutes
1 Toy Story John Lasseter 1995 81
2 A Bug's Life John Lasseter 1998 95
3 Toy Story 2 John Lasseter 1999 93
4 Monsters, Inc. Pete Docter 2001 92
5 Finding Nemo Andrew Stanton 2003 107
6 The Incredibles 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 ›
Next – SQL Lesson 2: Queries with constraints (Pt. 1)
Previous – Introduction to SQL
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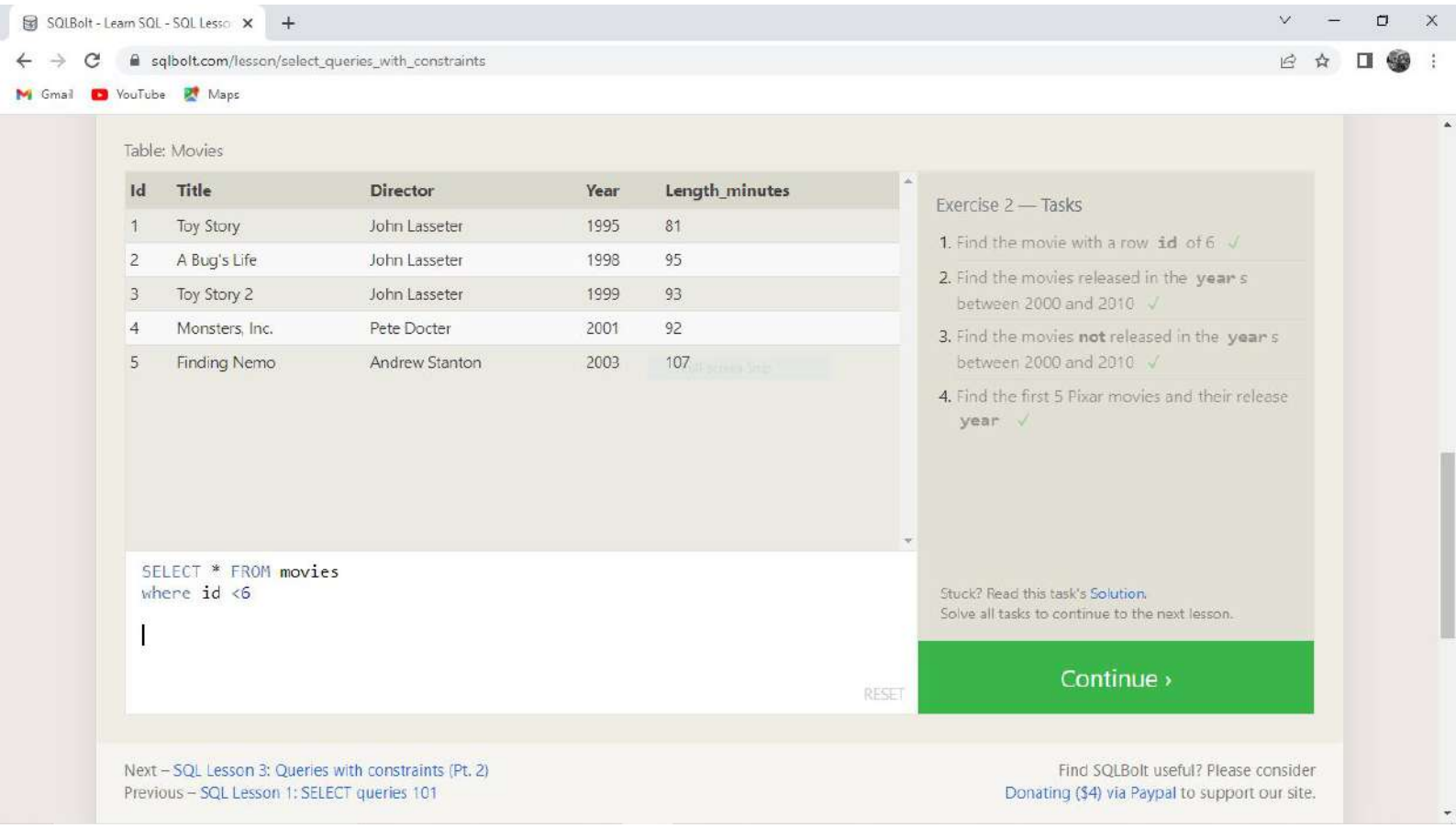
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Table: Movies
Id Title Director Year Length_minutes
1 Toy Story John Lasseter 1995 81
2 A Bug's Life John Lasseter 1998 95
3 Toy Story 2 John Lasseter 1999 93
4 Monsters, Inc. Pete Docter 2001 92
5 Finding Nemo Andrew Stanton 2003 107
Exercise 2 — Tasks
1. Find the movie with a row id of 6
2. Find the movies released in the years between 2000 and 2010
3. Find the movies not released in the years between 2000 and 2010
4. Find the first 5 Pixar movies and their release year
SELECT * FROM movies
where id <6
RESET
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
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Previous – SQL Lesson 1: SELECT queries 101
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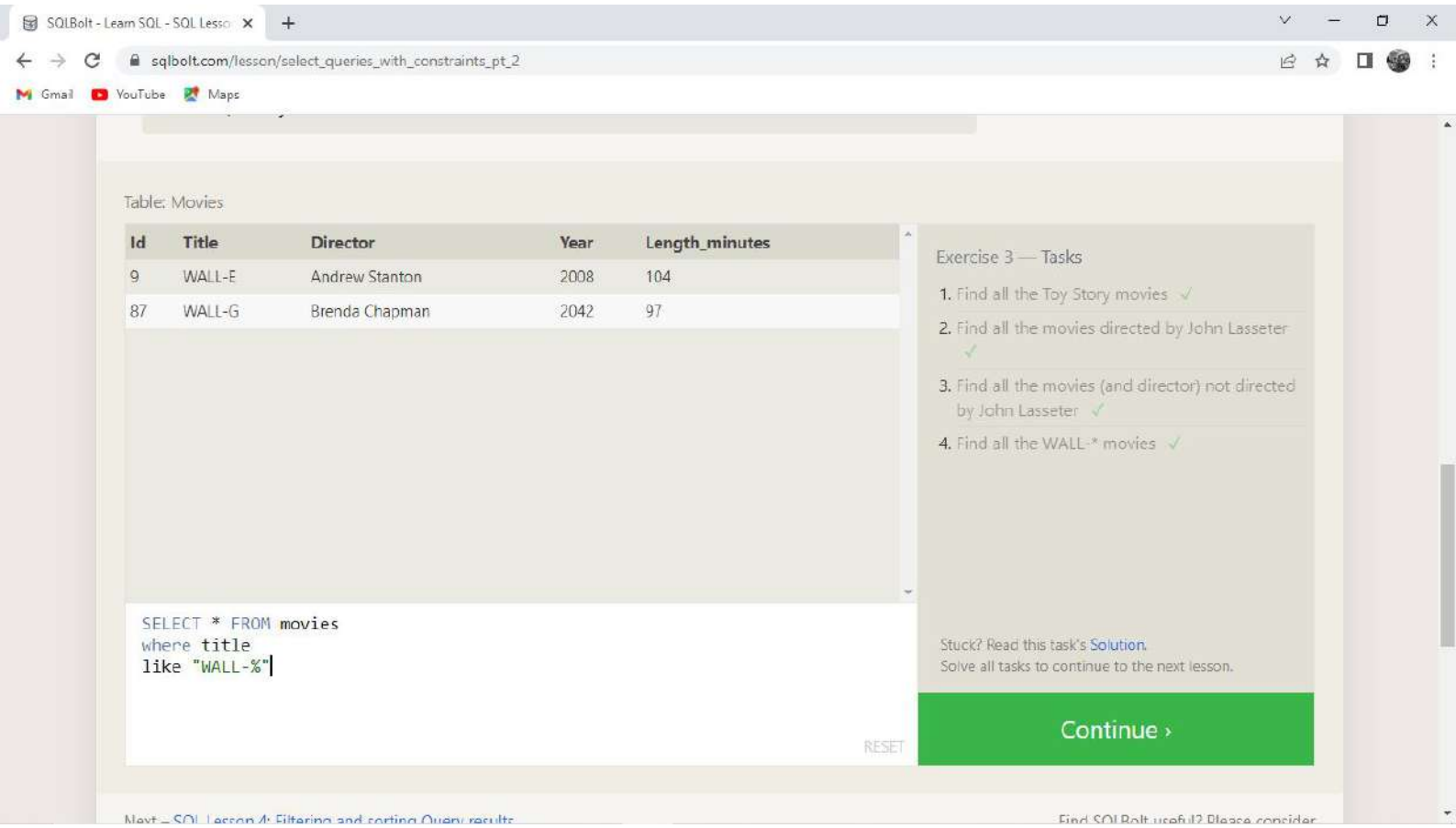
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Table: Movies
Id Title Director Year Length_minutes
9 WALL-E Andrew Stanton 2008 104
87 WALL-G Brenda Chapman 2042 97
SELECT * FROM movies
where title
like "WALL-%"
RESET
Exercise 3 — Tasks
1. Find all the Toy Story movies ✓
2. Find all the movies 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 ›

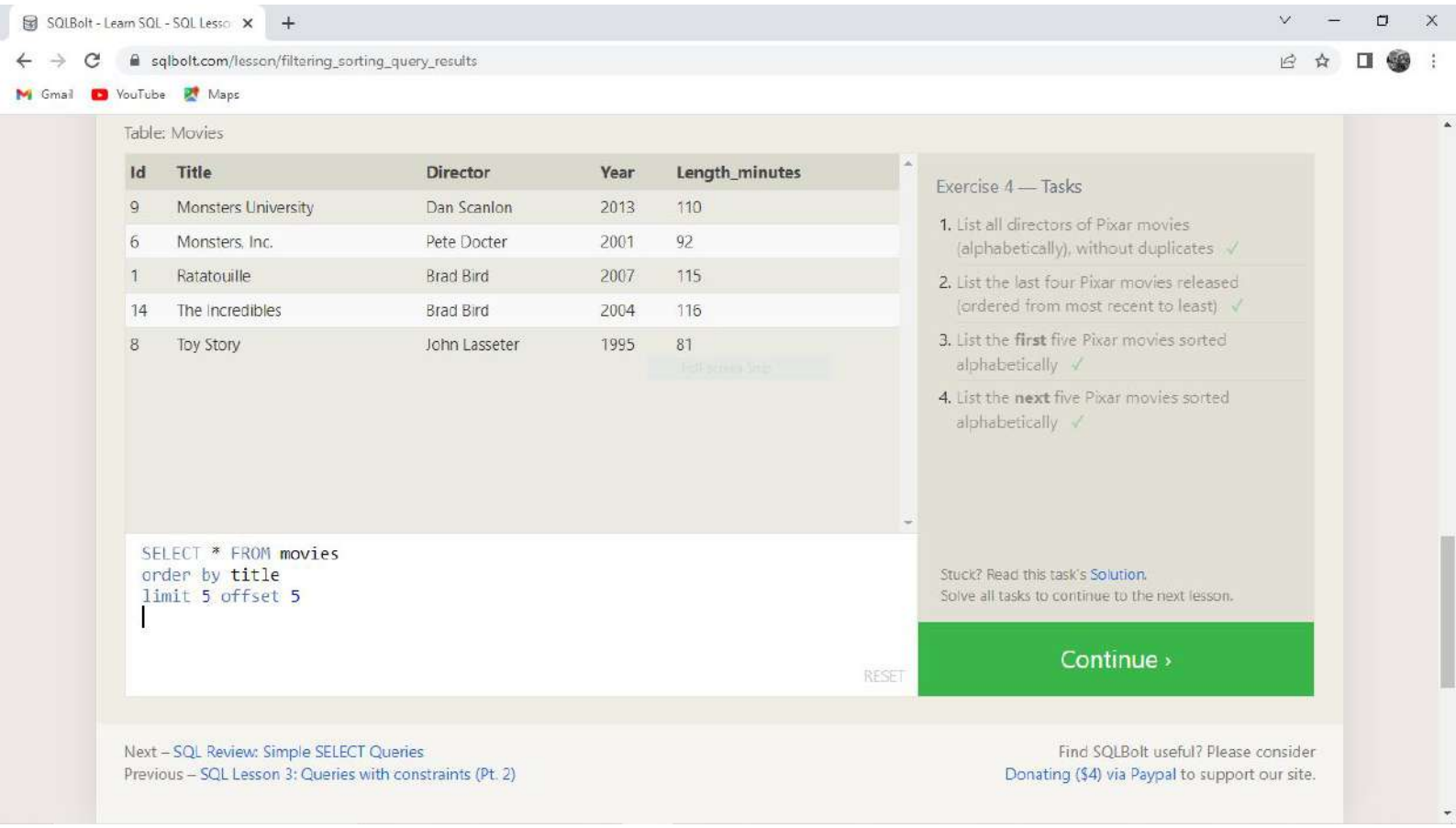
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Table: Movies
Id Title Director Year Length_minutes
9 Monsters University Dan Scanlon 2013 110
6 Monsters, Inc. Pete Docter 2001 92
1 Ratatouille Brad Bird 2007 115
14 The Incredibles Brad Bird 2004 116
8 Toy Story John Lasseter 1995 81
Exercise 4 — 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 ✓
SELECT * FROM movies
order by title
limit 5 offset 5
RESET
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
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Next – SQL Review: Simple SELECT Queries
Previous – SQL Lesson 3: Queries with constraints (Pt. 2)
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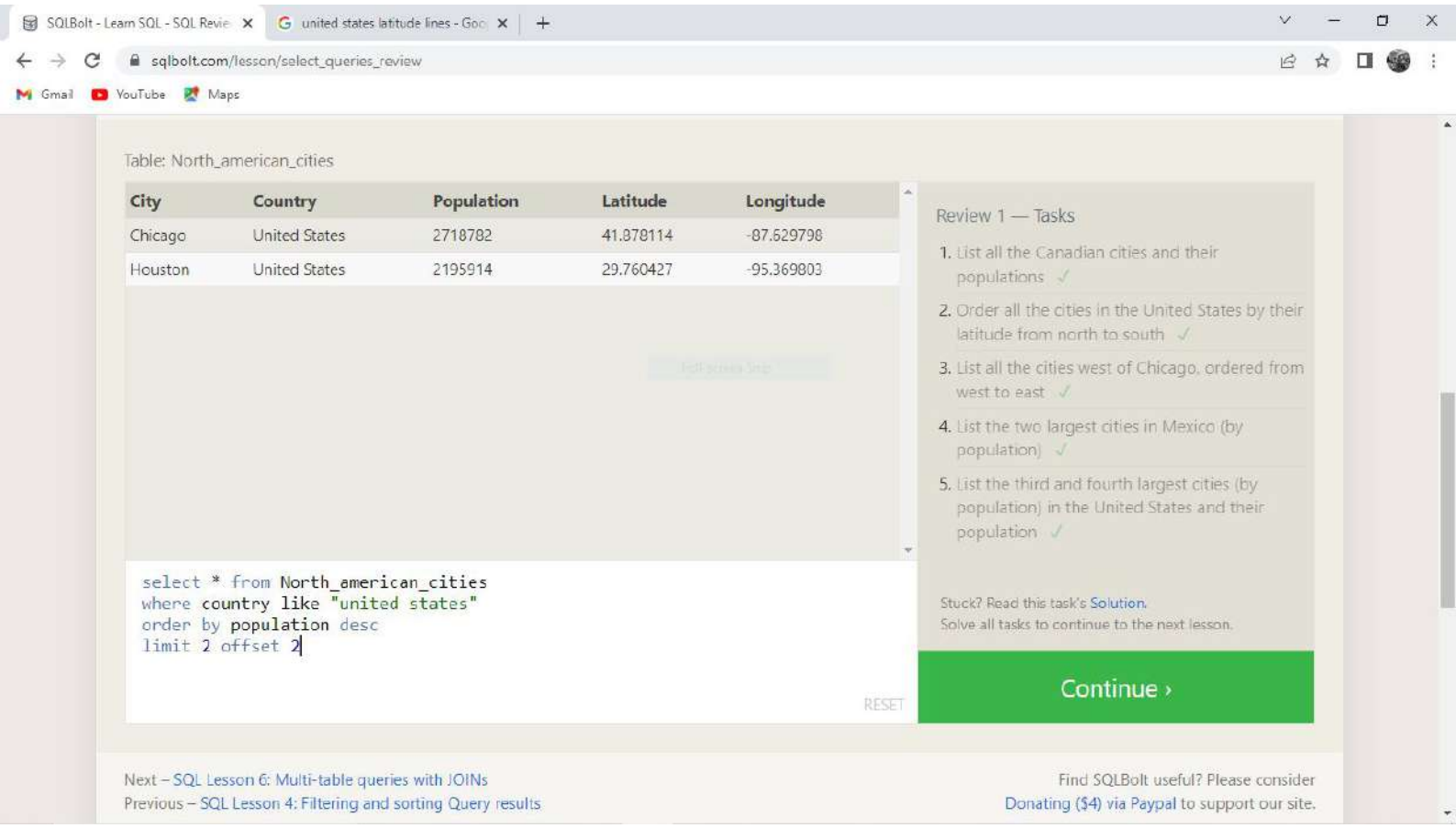
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Table: North_american_cities
City
Country
Population
Latitude
Longitude
Chicago
United States
2718782
41.878114
-87.629798
Houston
United States
2195914
29.760427
-95.369803
Review 1 — Tasks
1. List all the Canadian cities and their populations ✓
2. 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 ✓
select * from North_american_cities
where country like "united states"
order by population desc
limit 2 offset 2
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
Previous – SQL Lesson 4: Filtering and sorting Query results
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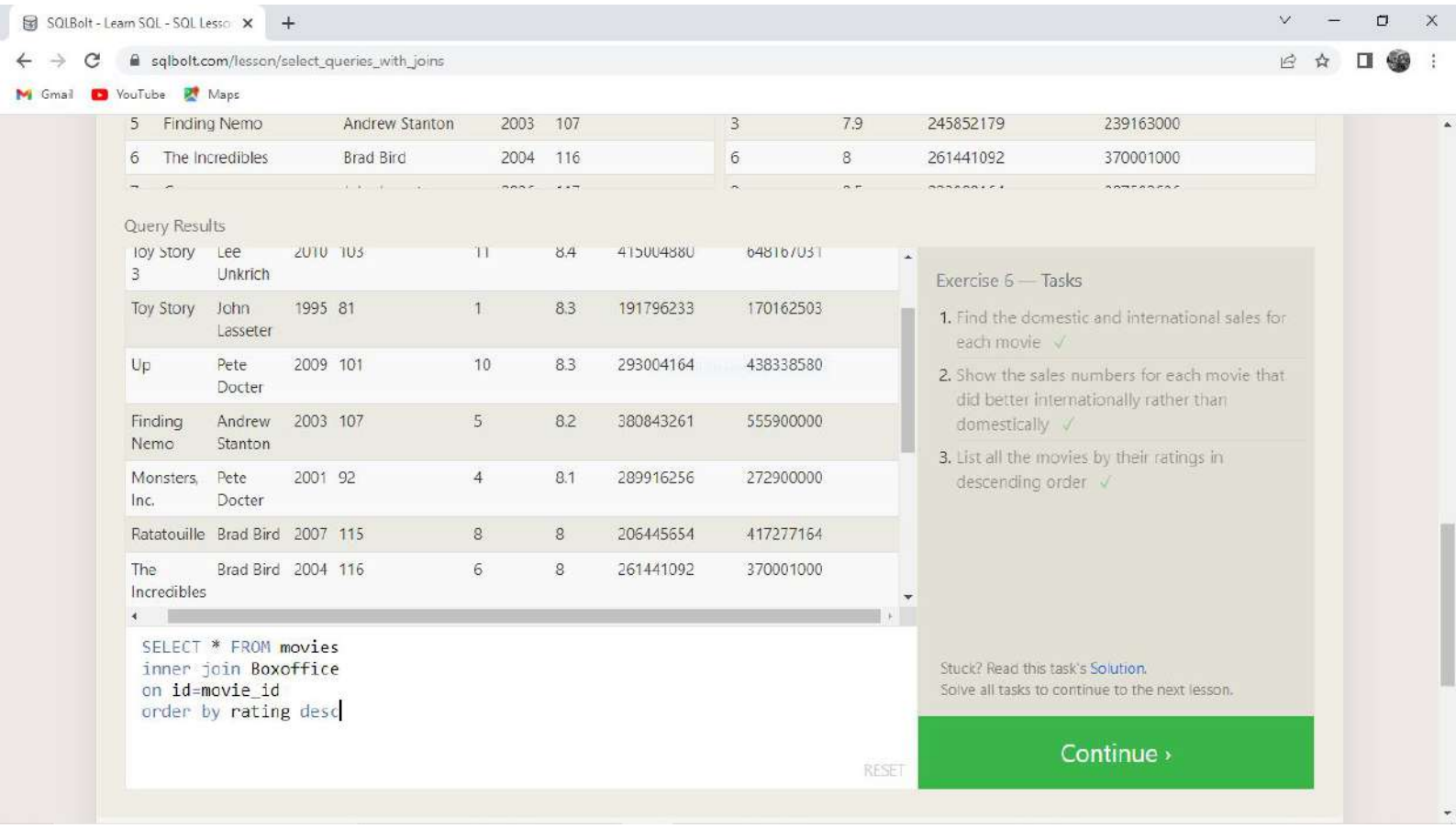
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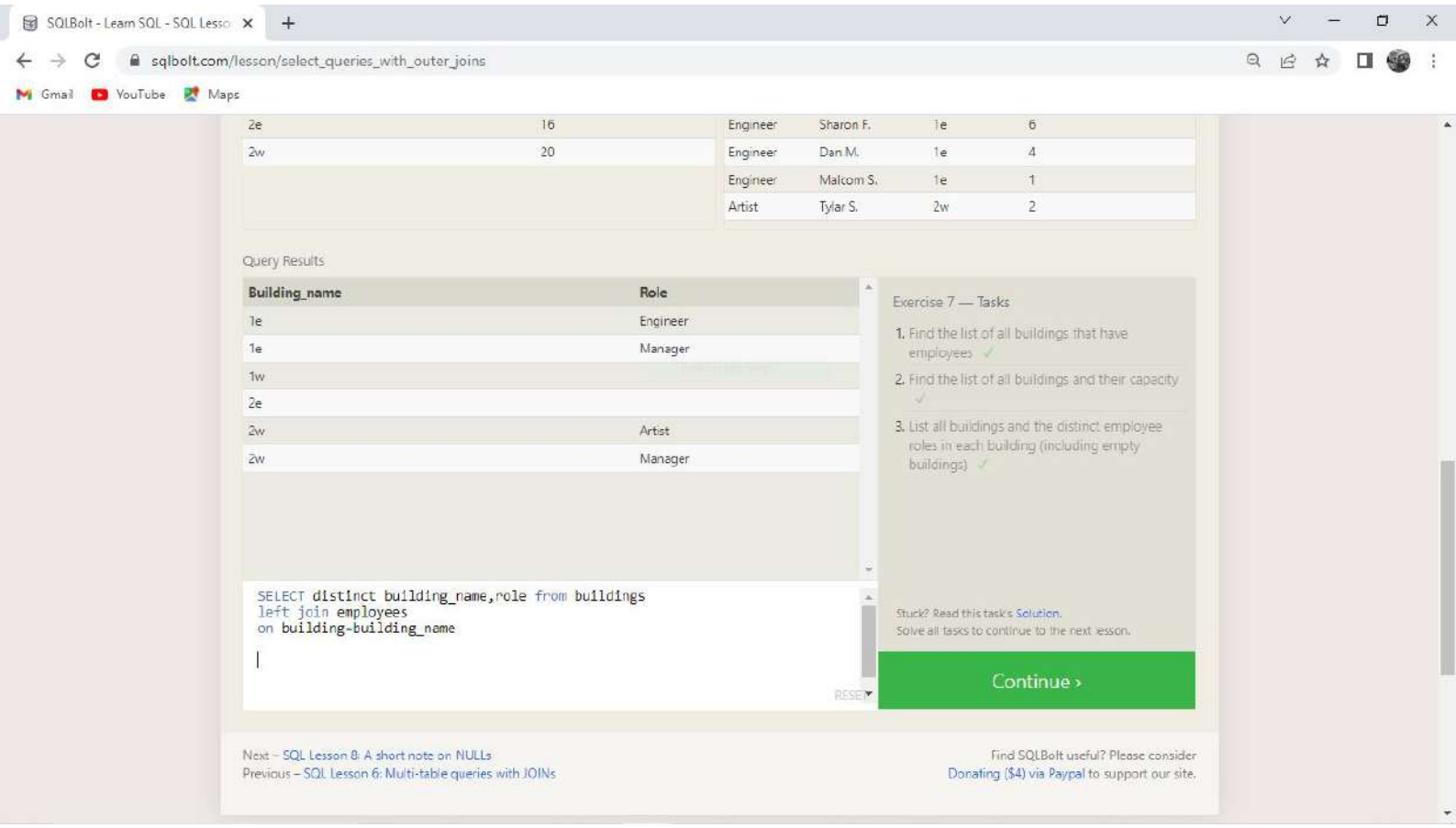
5 Finding Nemo Andrew Stanton 2003 107 3 7.9 245852179 239163000
6 The Incredibles Brad Bird 2004 116 6 8 261441092 370001000
Query Results
Toy Story 3 Lee Unkrich 2010 103 11 8.4 415004880 648167031
Toy Story John Lasseter 1995 81 1 8.3 191796233 170162503
Up Pete Docter 2009 101 10 8.3 293004164 438338580
Finding Nemo Andrew Stanton 2003 107 5 8.2 380843261 555900000
Monsters, Inc. Pete Docter 2001 92 4 8.1 289916256 272900000
Ratatouille Brad Bird 2007 115 8 8 206445654 417277164
The Incredibles Brad Bird 2004 116 6 8 261441092 370001000
SELECT * 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 ›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2e 16
2w 20
Engineer Sharon F. 1e 6
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-building_name
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
Previous – SQL Lesson 6: Multi-table queries with JOINs
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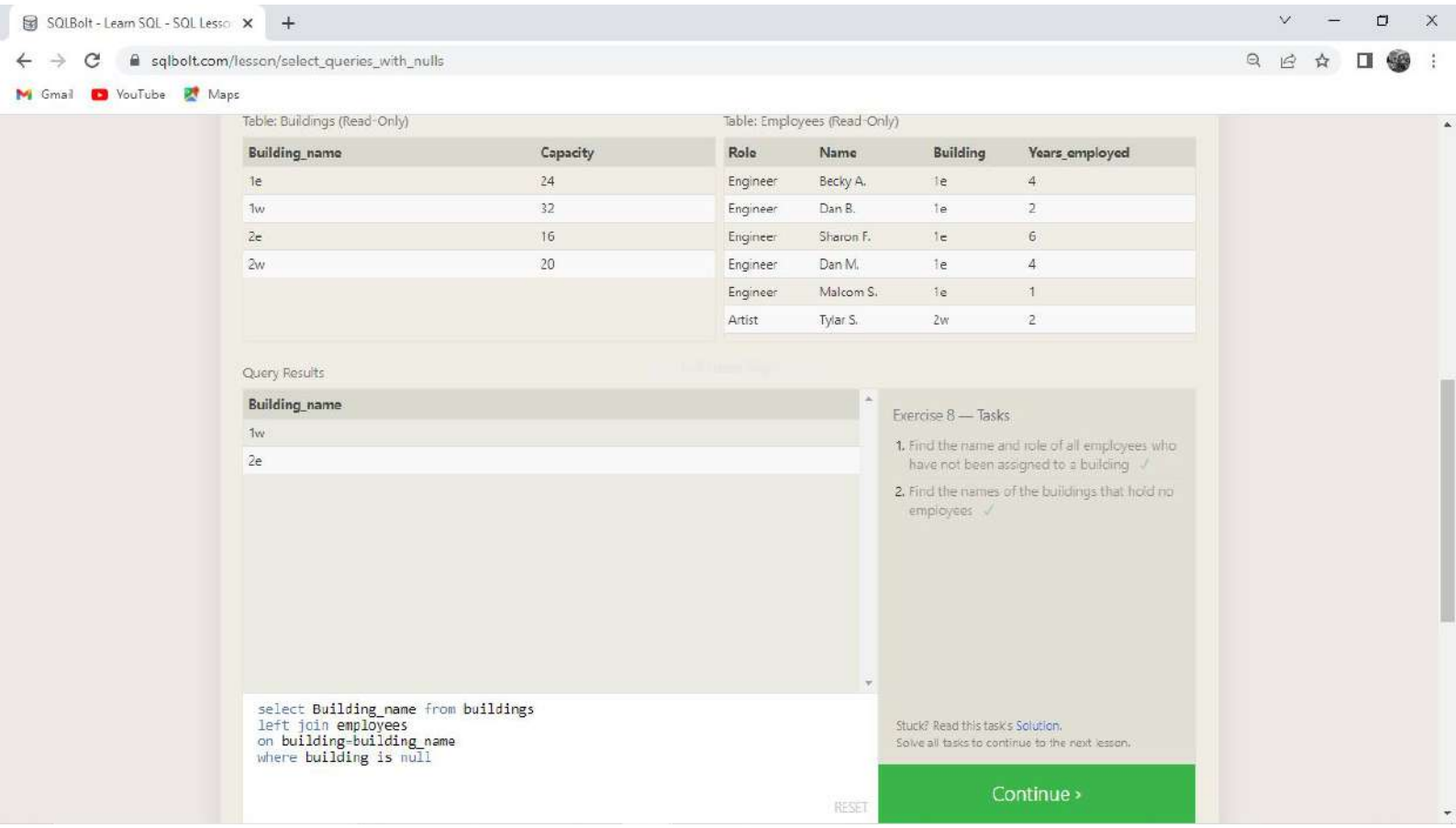
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Table: Buildings (Read-Only)
Building_name | Capacity
1e | 24
1w | 32
2e | 16
2w | 20
Table: Employees (Read-Only)
Role | Name | Building | Years_employed
Engineer | Becky A. | 1e | 4
Engineer | Dan B. | 1e | 2
Engineer | Sharon F. | 1e | 6
Engineer | Dan M. | 1e | 4
Engineer | Malcom S. | 1e | 1
Artist | Tylar S. | 2w | 2
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 Building_name from buildings
left join employees
on building=building_name
where building is null
RESET
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
Continue ›

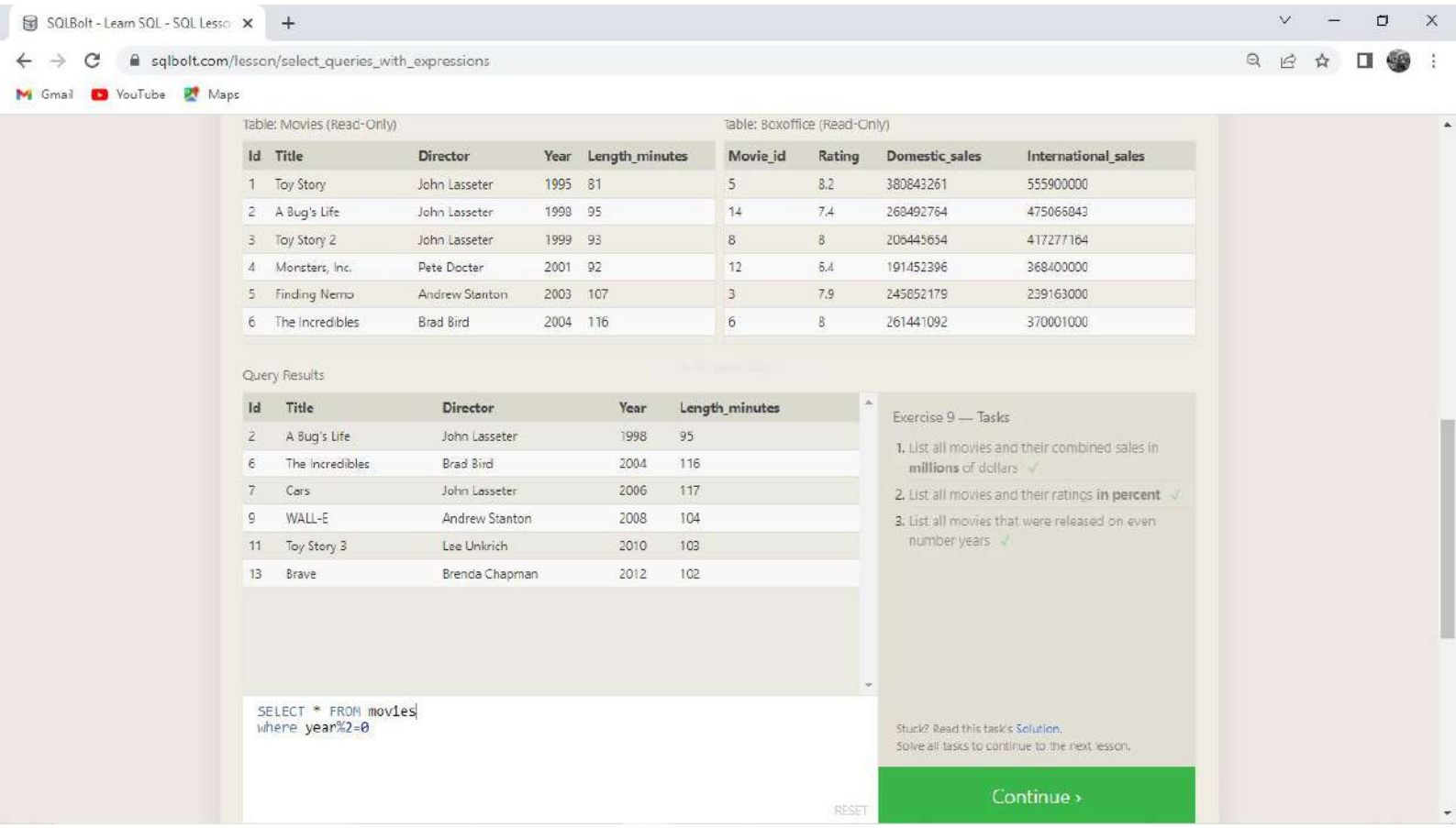
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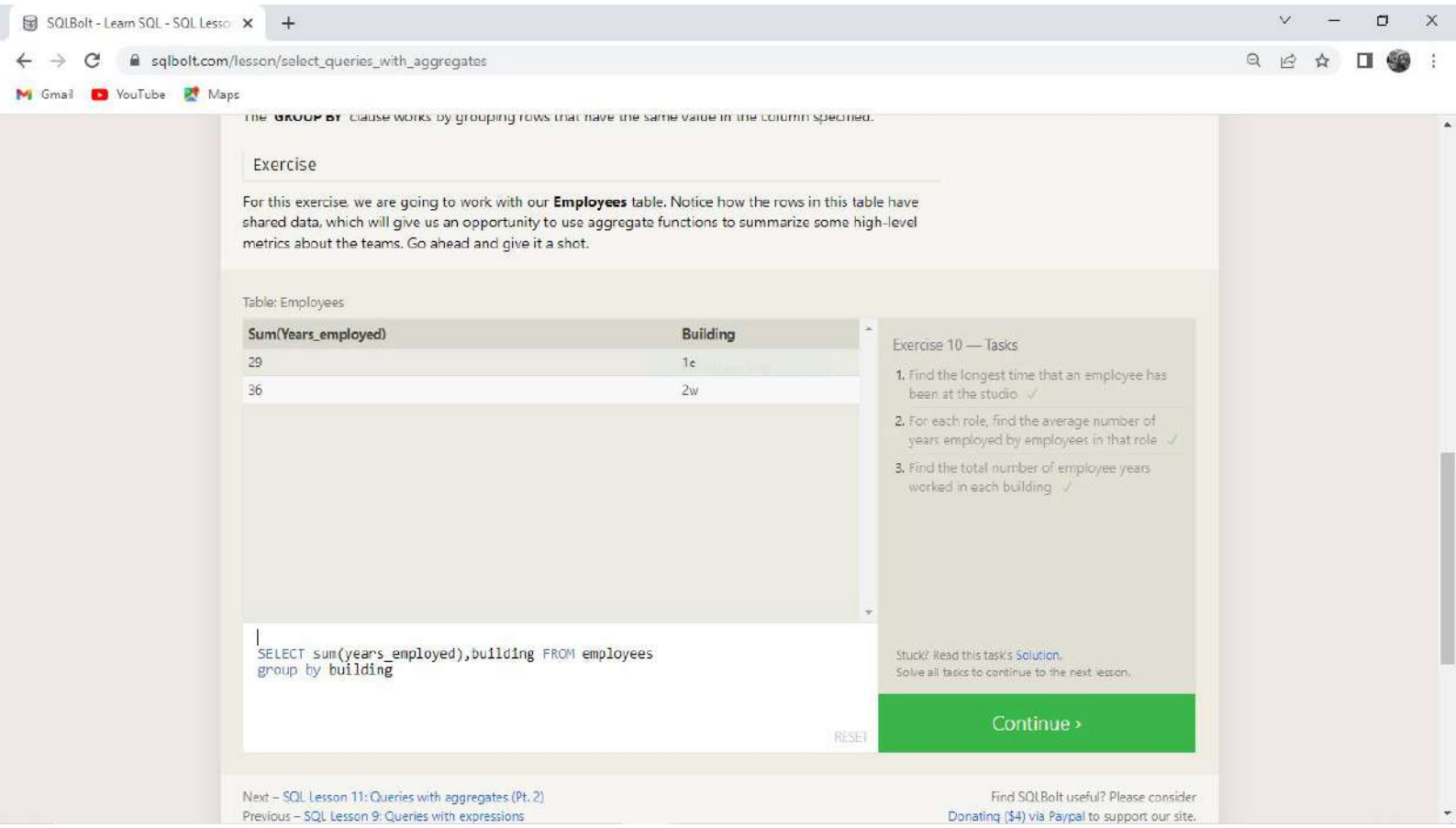
Table: Movies (Read-Only)
Id Title Director Year Length_minutes
1 Toy Story John Lasseter 1995 81
2 A Bug's Life John Lasseter 1998 95
3 Toy Story 2 John Lasseter 1999 93
4 Monsters, Inc. Pete Docter 2001 92
5 Finding Nemo Andrew Stanton 2003 107
6 The Incredibles Brad Bird 2004 116
Table: Boxoffice (Read-Only)
Movie_id Rating Domestic_sales International_sales
5 8.2 380843261 555900000
14 7.4 268492764 475066843
8 8 206445654 417277164
12 6.4 191452396 368400000
3 7.9 245852179 239163000
6 8 261441092 370001000
Query Results
Id Title Director Year Length_minutes
2 A Bug's Life John Lasseter 1998 95
6 The Incredibles Brad Bird 2004 116
7 Cars John Lasseter 2006 117
9 WALL-E Andrew Stanton 2008 104
11 Toy Story 3 Lee Unkrich 2010 103
13 Brave Brenda Chapman 2012 102
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 * FROM movies
where year%2=0
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
RESET
Continue ›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The GROUP BY clause works by grouping rows that have the same value in the column specified.
Exercise
For this exercise, we are going to work with our Employees table. Notice how the rows in this table have shared data, which will give us an opportunity to use aggregate functions to summarize some high-level metrics about the teams. Go ahead and give it a shot.
Table: Employees
Sum(Years_employed)
Building
29
1e
36
2w
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 ✓
SELECT sum(years_employed),building FROM employees
group by building
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)
Previous – SQL Lesson 9: Queries with expressions
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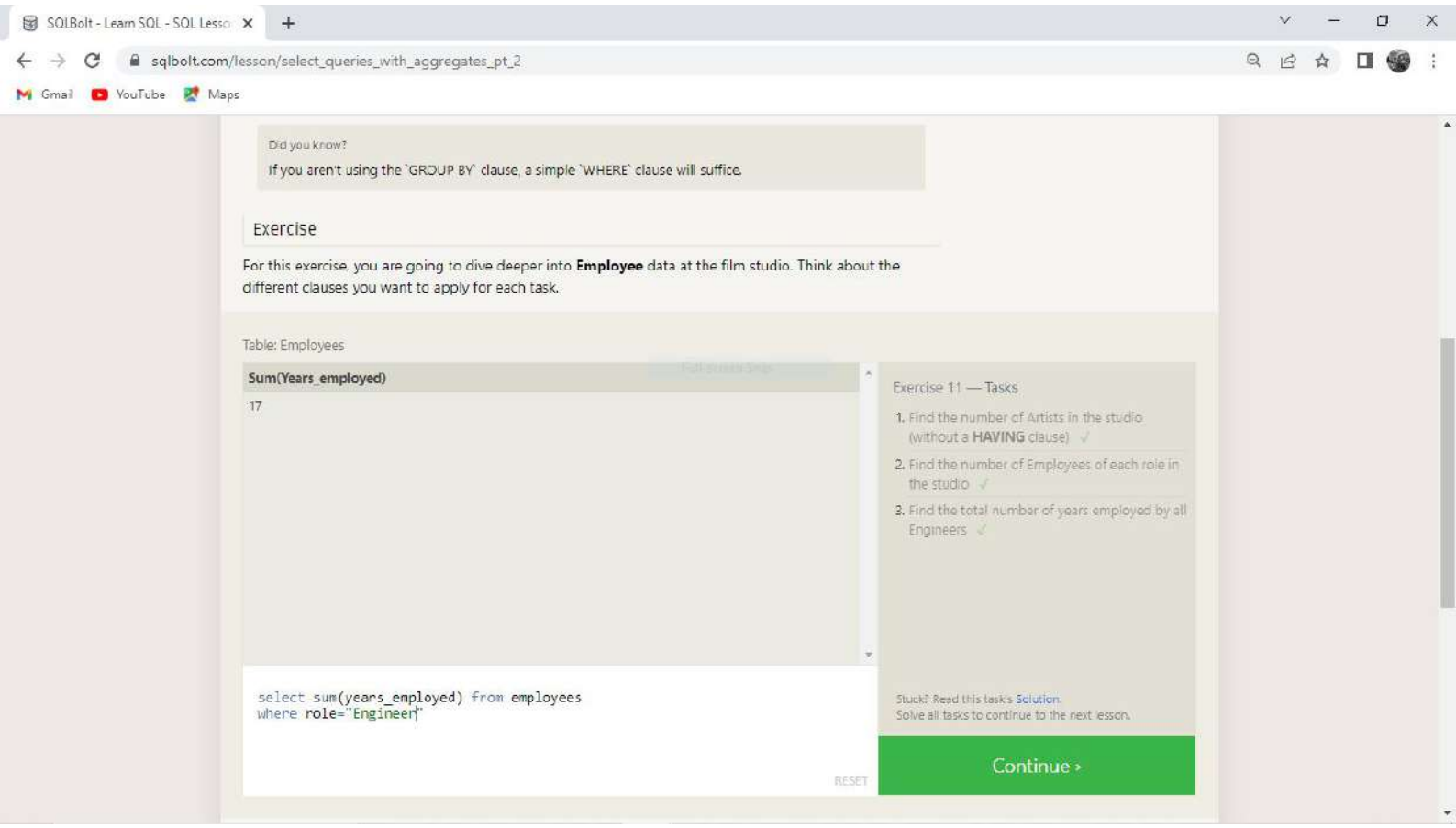
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Did you know?
If you aren't using the `GROUP BY` clause, a simple `WHERE` clause will suffice.
Exercise
For this exercise, you are going to dive deeper into Employee data at the film studio. Think about the different clauses you want to apply for each task.
Table: Employees
Sum(Years_employed)
17
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 ✓
select sum(years_employed) from employees
where role="Engineer"
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
RESET
Continue »

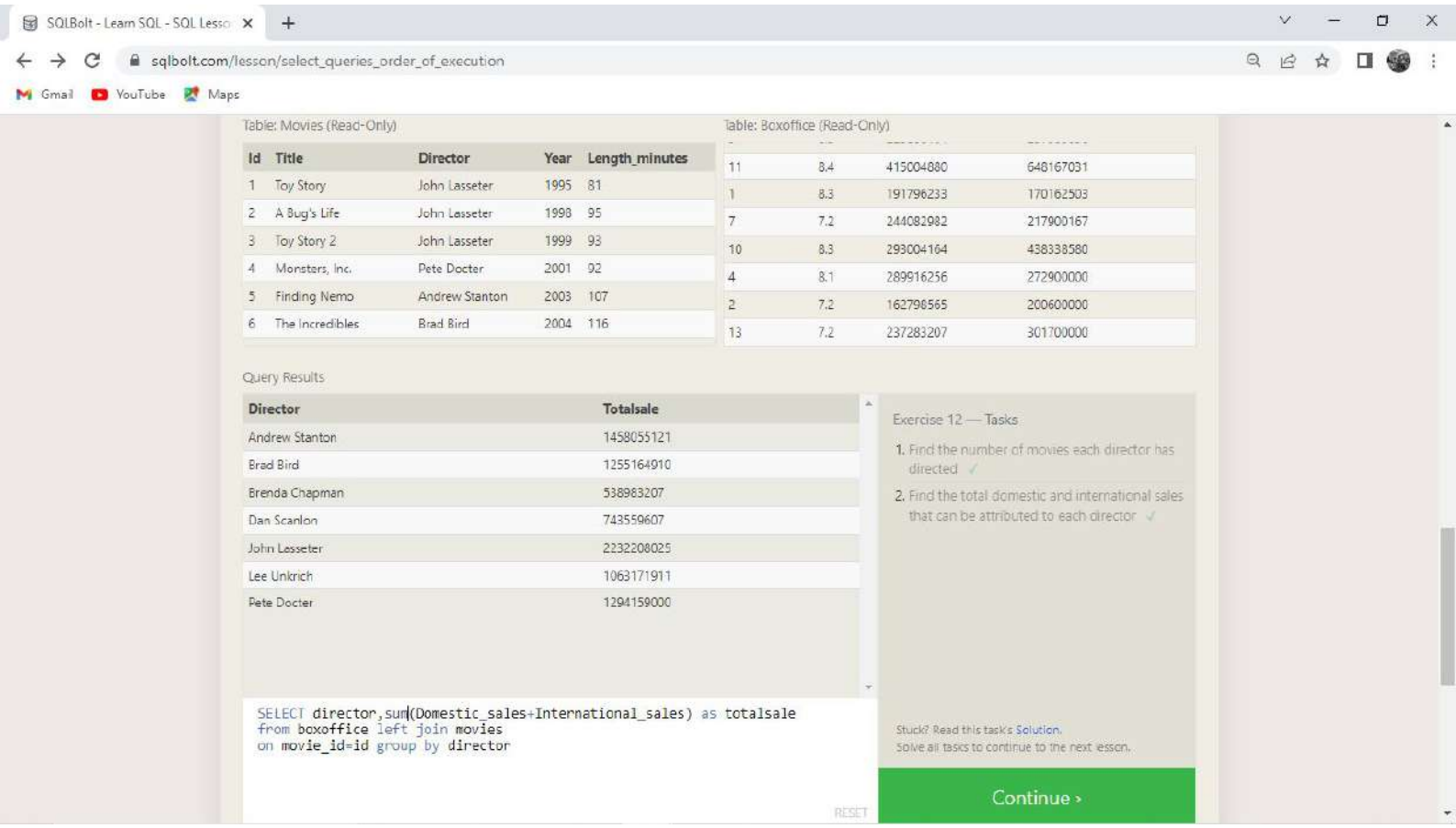
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Table: Movies (Read-Only)
Id Title Director Year Length_minutes
1 Toy Story John Lasseter 1995 81
2 A Bug's Life John Lasseter 1998 95
3 Toy Story 2 John Lasseter 1999 93
4 Monsters, Inc. Pete Docter 2001 92
5 Finding Nemo Andrew Stanton 2003 107
6 The Incredibles Brad Bird 2004 116
Table: Boxoffice (Read-Only)
11 8.4 415004880 648167031
1 8.3 191796233 170162503
7 7.2 244082982 217900167
10 8.3 293004164 438338580
4 8.1 289916256 272900000
2 7.2 162798565 200600000
13 7.2 237283207 301700000
Query Results
Director Totalsale
Andrew Stanton 1458055121
Brad Bird 1255164910
Brenda Chapman 538983207
Dan Scanlon 743559607
John Lasseter 2232208025
Lee Unkrich 1063171911
Pete Docter 1294159000
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 ✓
SELECT director,sum(Domestic_sales+International_sales) as totalsale
from boxoffice left join movies
on movie_id=id group by director
RESET
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
Continue ›

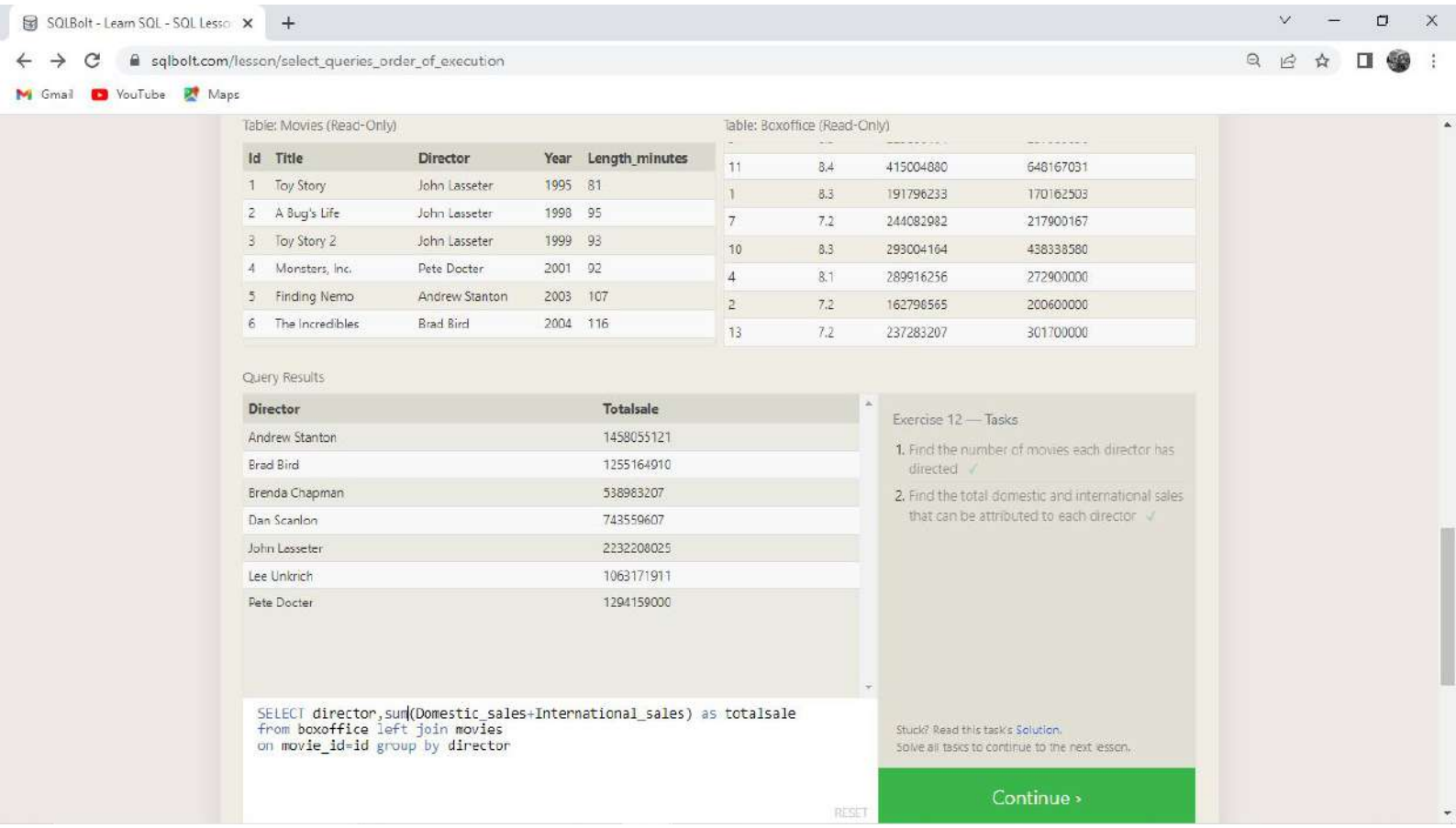
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Table: Movies (Read-Only)
Id Title Director Year Length_minutes
1 Toy Story John Lasseter 1995 81
2 A Bug's Life John Lasseter 1998 95
3 Toy Story 2 John Lasseter 1999 93
4 Monsters, Inc. Pete Docter 2001 92
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Table: Boxoffice (Read-Only)
11 8.4 415004880 648167031
1 8.3 191796233 170162503
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10 8.3 293004164 438338580
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2 7.2 162798565 200600000
13 7.2 237283207 301700000
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Director Totalsale
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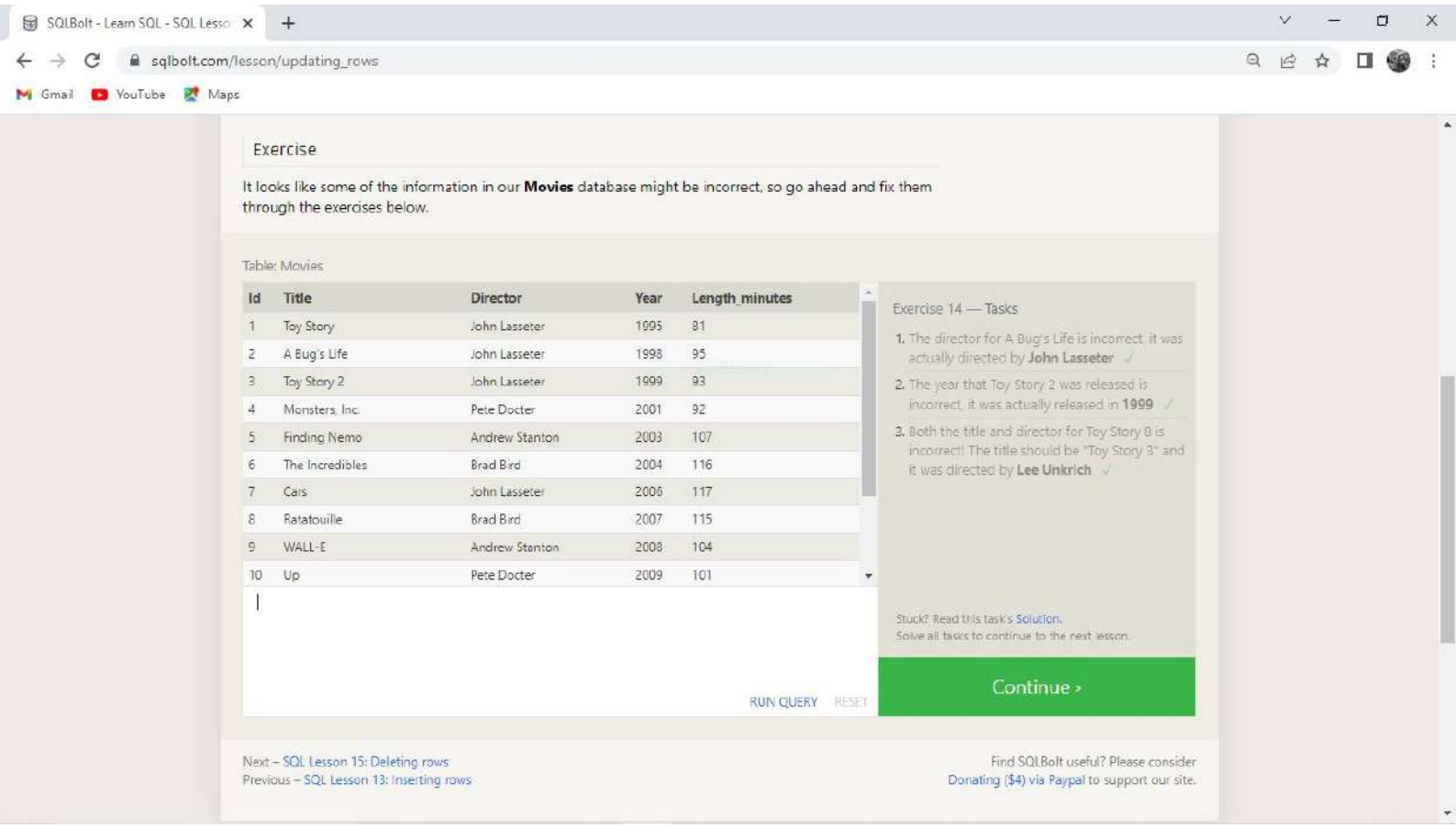
Brenda Chapman 538983207
Dan Scanlon 743559607
John Lasseter 2232208025
Lee Unkrich 1063171911
Pete Docter 1294159000
Exercise 12 — Tasks
1. Find the number of movies each director has directed ✓
2. Find the total domestic and international sales that can be attributed to each director ✓
SELECT director,sum(Domestic_sales+International_sales) as totalsale
from boxoffice left join movies
on movie_id=id group by director
RESET
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
Continue ›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Exercise
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
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
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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Previous – SQL Lesson 13: Inserting rows
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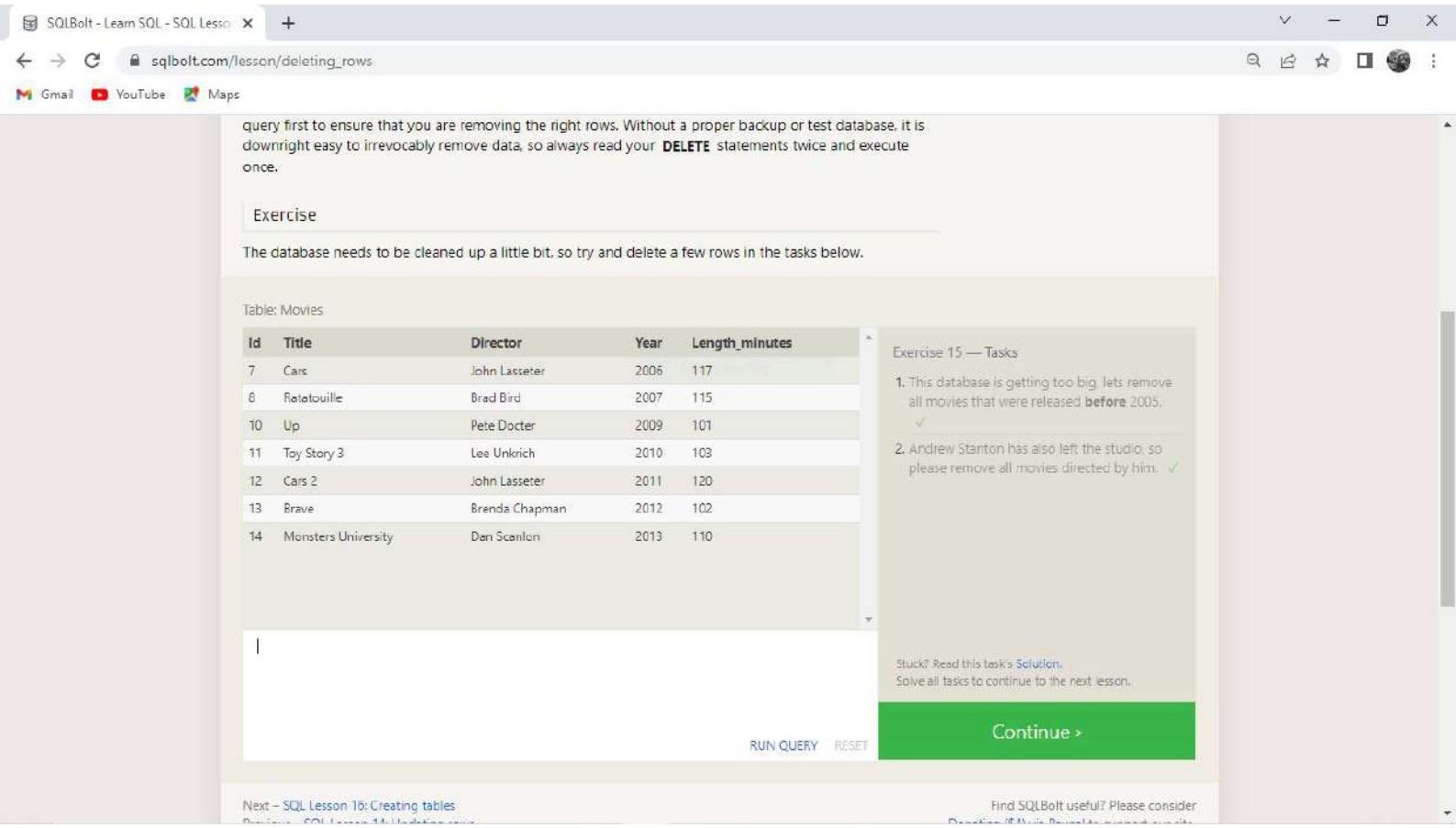
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query first to ensure that you are removing the right rows. Without a proper backup or test database, it is downright easy to irrevocably remove data, so always read your DELETE statements twice and execute once.
Exercise
The database needs to be cleaned 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
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 »
Next – SQL Lesson 16: Creating tables
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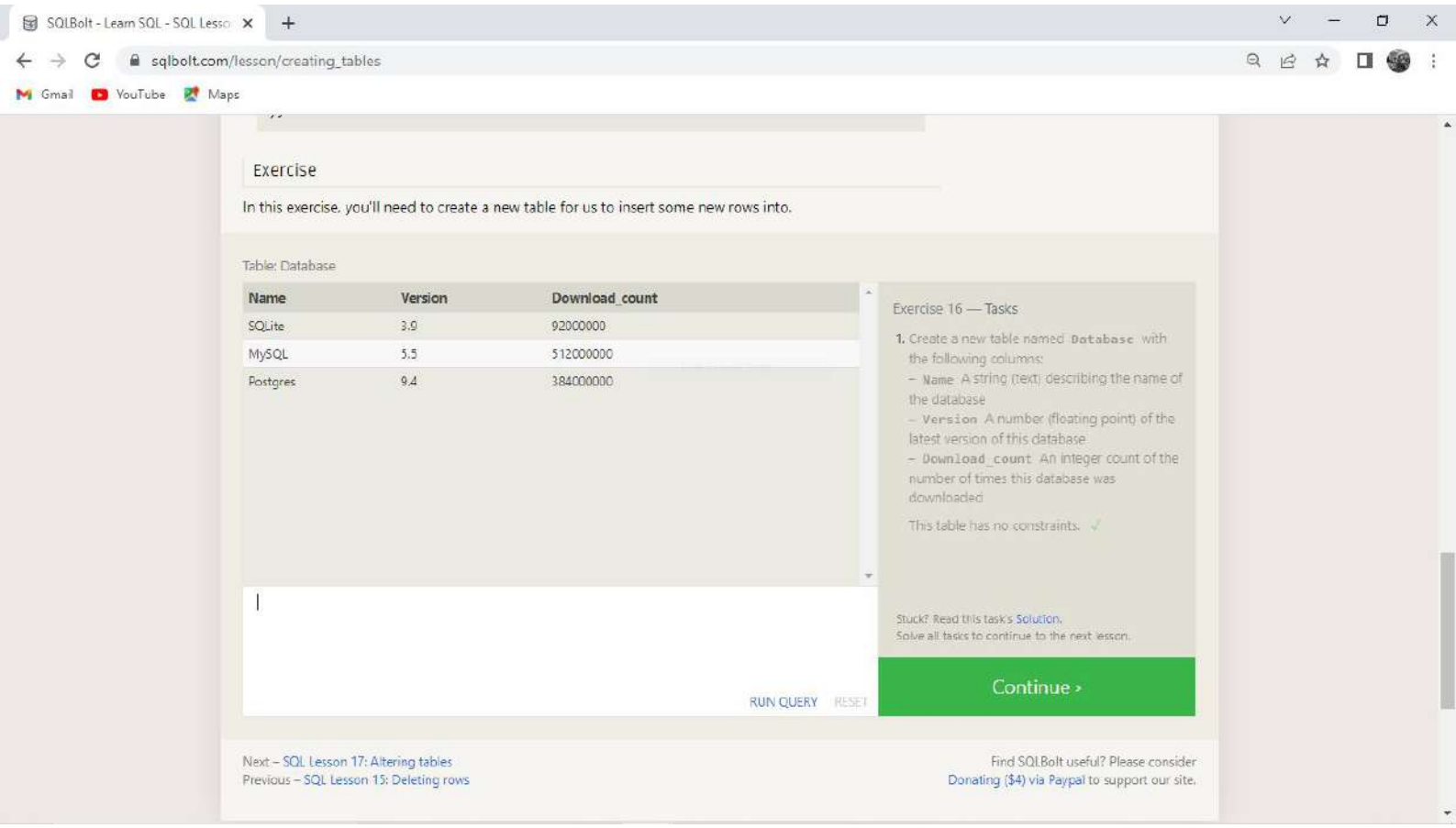
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Exercise
In this exercise, you'll need to create a new table for us to insert some new rows into.
Table: Database
Name
Version
Download_count
SQLite
3.9
92000000
MySQL
5.5
512000000
Postgres
9.4
384000000
Exercise 16 — Tasks
1. Create a new table named 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.
RUN QUERY
RESET
Continue ›
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Previous – SQL Lesson 15: Deleting rows
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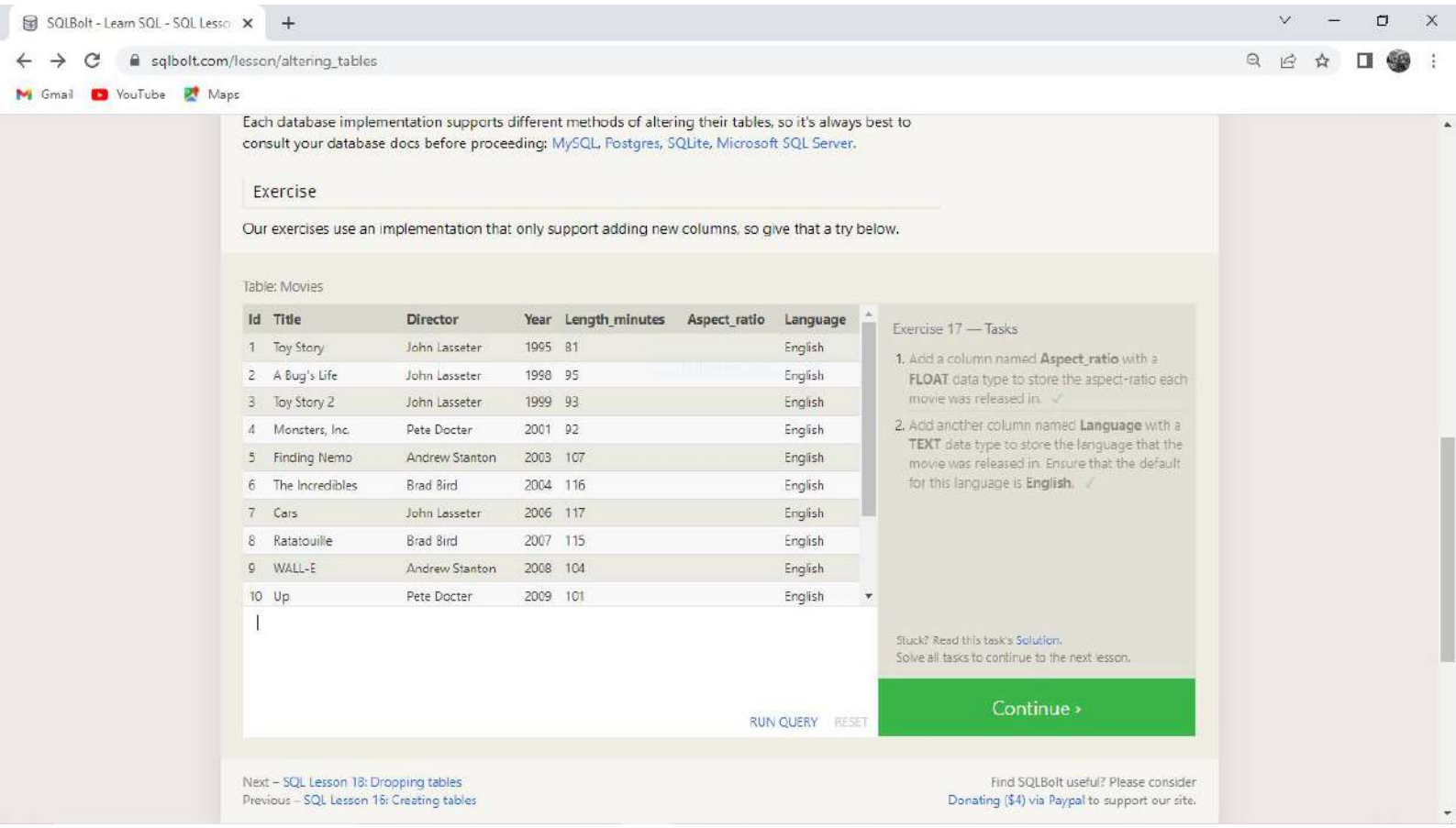
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Each database implementation supports different methods of altering their tables, so it's always best to consult your database docs before proceeding: MySQL, Postgres, SQLite, Microsoft SQL Server.
Exercise
Our exercises use an implementation that only support adding new columns, so give that a try below.
Table: Movies
Id Title Director Year Length_minutes Aspect_ratio Language
1 Toy Story John Lasseter 1995 81 English
2 A Bug's Life John Lasseter 1998 95 English
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
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.
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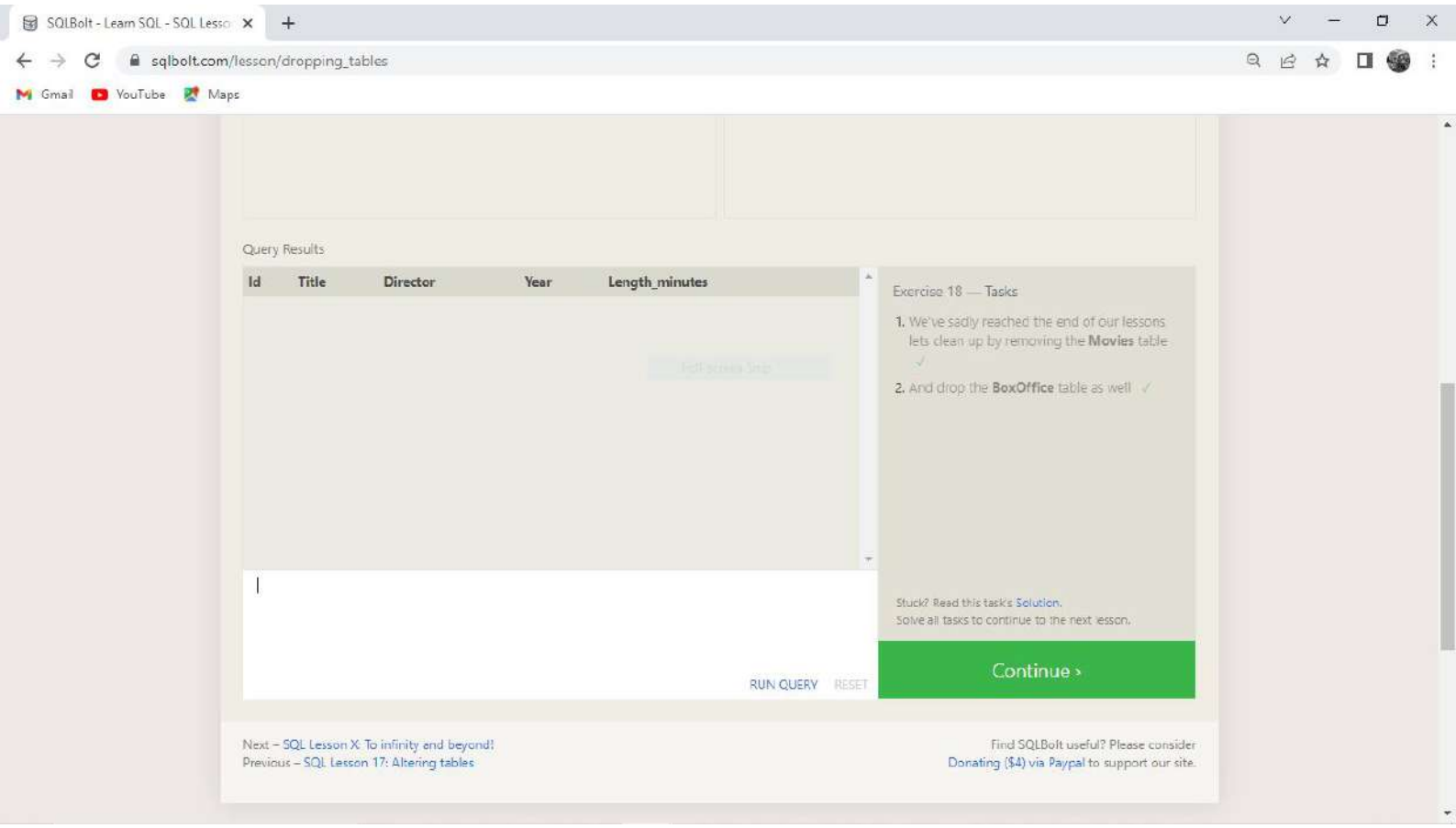
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Length_minutes
Exercise 18 — Tasks
1. We've sadly reached the end of our lessons lets clean up by removing the Movies table
2. And drop the BoxOffice table as well
Stuck? Read this task's Solution.
Solve all tasks to continue to the next lesson.
RUN QUERY
RESET
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