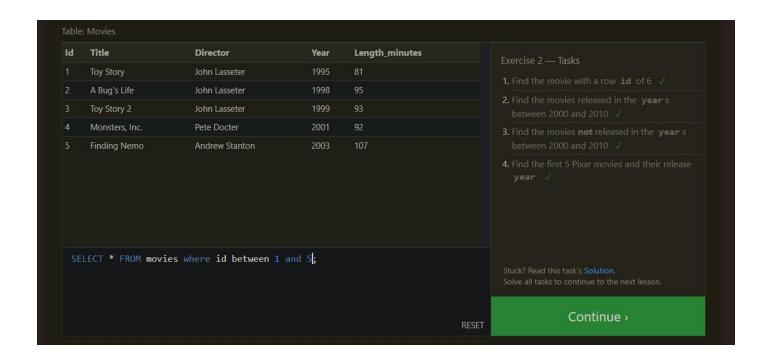
## **SQLBOLT**

# **SQL Lesson 1: SELECT queries 10**

ld	Title	Director	Year	Length_minutes	Exercise 1 — Tasks
	Toy Story	John Lasseter	1995	81	1. Find the title of each film ✓
2	A Bug's Life	John Lasseter	1998	95	
	Toy Story 2	John Lasseter	1999	93	2. Find the director of each film ✓
4	Monsters, Inc.	Pete Docter	2001	92	3. Find the title and director of each film √
5	Finding Nemo	Andrew Stanton	2003	107	4. Find the title and year of each film ✓
6	The Incredibles	Brad Bird	2004	116	5. Find all the information about each film 🗸
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	
SE	LECT * FROM movies;				Stuck? Read this task's <b>Solution</b> . Solve all tasks to continue to the next lesson.
					Continue >

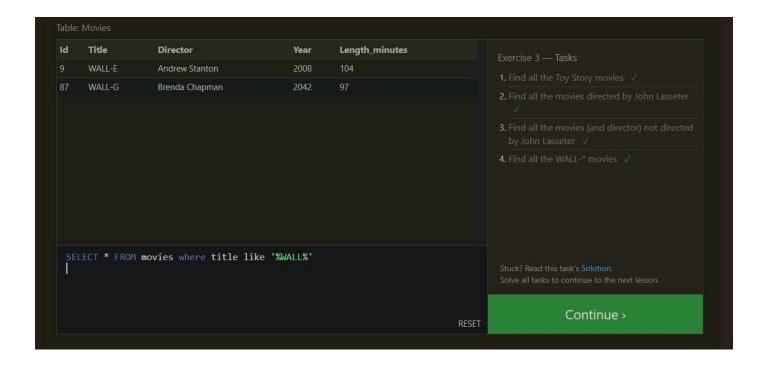
- 1.SELECT title FROM movies;
- 2.SELECT director FROM movies;
- 3.SELECT title, director FROM movies;
- 4.SELECT title, year FROM movies;
- 5.SELECT \* FROM movies;

## **SQL Lesson 2: Queries with constraints (Pt. 1)**



- 1. SELECT \* FROM movies where id=6;
- 2. SELECT \* FROM movies where year between 2000 and 2010
- 3. SELECT \* FROM movies where year not between 2000 and 2010
- 4. SELECT \* FROM movies where id between 1 and 5

## **SQL Lesson 3: Queries with constraints (Pt. 2)**



- 1. SELECT \* FROM movies where title like '%toy%'
- 2. SELECT \* FROM movies where director like '%John Lasseter%'
- 3. SELECT \* FROM movies where director not like '%John Lasseter%'
- 4. SELECT \* FROM movies where title like '%WALL%'

#### **SQL Lesson 4: Filtering and sorting Query results**



- 1. SELECT distinct director FROM movies ORDER BY director ASC;
- 2. SELECT title, year FROM movies ORDER BY year DESC LIMIT 4;
- 3. SELECT title FROM movies ORDER BY title ASC LIMIT 5;
- 4. SELECT title FROM movies ORDER BY title ASC LIMIT 5 OFFSET 5;

#### **SQL Lesson5 Review: Simple SELECT Queries**



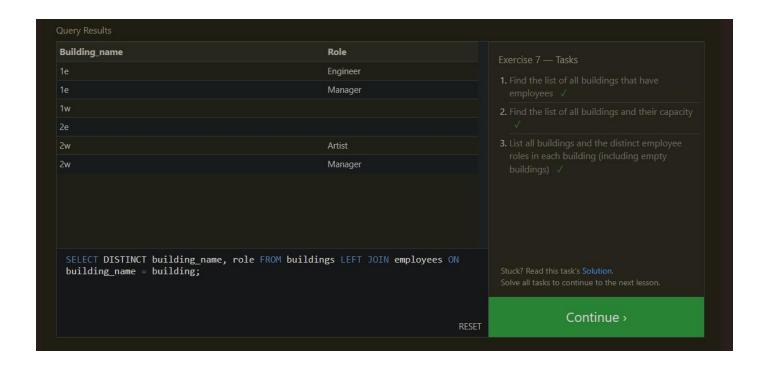
- 1.SELECT city, population FROM north\_american\_cities WHERE country
  = "Canada";
- 2.SELECT city, latitude FROM north\_american\_cities WHERE country =
  "United States" ORDER BY latitude DESC;
- 3.SELECT City, Latitude FROM north\_american\_cities WHERE Longitude < -87.629798 ORDER BY Longitude;
- 3. SELECT city, population FROM north\_american\_cities WHERE country LIKE "Mexico" ORDER BY population DESC LIMIT 2;
- 4. SELECT city, population FROM north\_american\_cities WHERE country LIKE "United States" ORDER BY population DESC LIMIT 2 OFFSET 2;

#### **SQL Lesson 6: Multi-table queries with JOINs**



- 1. SELECT title, domestic\_sales, international\_sales FROM movies JOIN boxoffice ON movies.id = boxoffice.movie id;
- 2.SELECT Title, Domestic\_sales, International\_sales FROM movies
  INNER JOIN Boxoffice ON Id = Movie\_id WHERE Domestic\_sales <
  International\_sales;</pre>
- 3.SELECT title, rating FROM movies JOIN boxoffice ON movies.id =
  boxoffice.movie\_id ORDER BY rating DESC;

#### **SQL Lesson 7: OUTER JOINs**



- 1. SELECT DISTINCT building FROM employees;
- 2. SELECT \* FROM buildings;
- 3. SELECT DISTINCT building\_name, role FROM buildings LEFT JOIN employees ON building\_name = building;

#### **SQL Lesson 8: A short note on NULLs**



- 1.SELECT name, role FROM employees WHERE building IS NULL;
- 2.SELECT DISTINCT building\_name FROM buildings LEFT JOIN employees ON building\_name = building WHERE role IS NULL;

#### **SQL Lesson 9: Queries with expressions**



- 1.SELECT title, (domestic\_sales + international\_sales) / 1000000 AS gross\_sales\_millions FROM movies JOIN boxoffice ON movies.id = boxoffice.movie id;
- 2.SELECT title, rating \* 10 AS rating\_percent FROM movies JOIN boxoffice ON movies.id = boxoffice.movie\_id;
- 3.SELECT title, year FROM movies WHERE year % 2 = 0;

#### SQL Lesson 10: Queries with aggregates (Pt. 1)



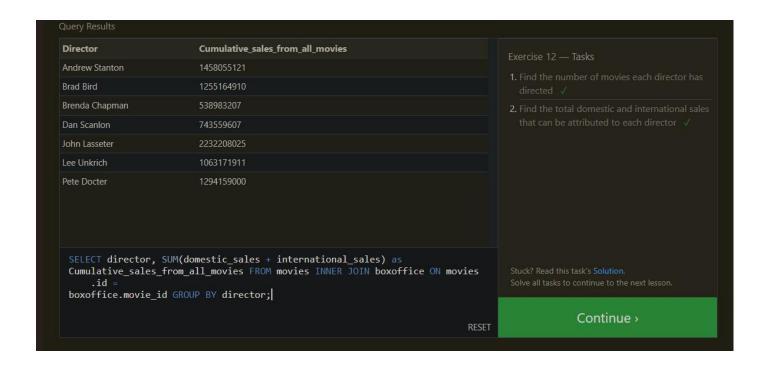
- 1.SELECT MAX(years\_employed) as Max\_years\_employed FROM employees;
- 2.SELECT role, AVG(years\_employed) as Average\_years\_employed FROM employees GROUP BY role;
- 3.SELECT building, SUM(years\_employed) as Total\_years\_employed FROM employees GROUP BY building;

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



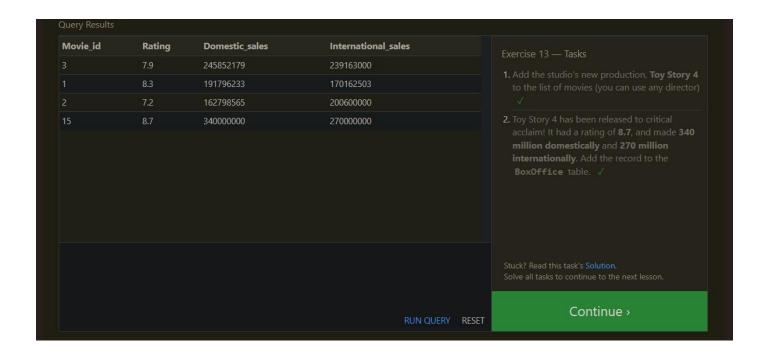
- SELECT role, COUNT(\*) as Number\_of\_artists FROM employees WHERE role = "Artist";
- 2. SELECT role, COUNT(\*) FROM employees GROUP BY role;
- 3. SELECT role, SUM(years\_employed)FROM employees GROUP BY role HAVING role = "Engineer";

#### **SQL Lesson 12: Order of execution of a Query**



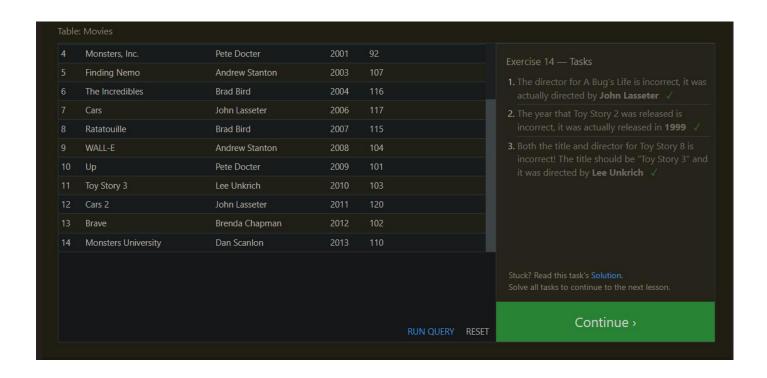
- 1.SELECT director, COUNT(id) as Num\_movies\_directed FROM movies GROUP BY director;
- 2.SELECT director, SUM(domestic\_sales + international\_sales) as Cumulative\_sales\_from\_all\_movies FROM movies INNER JOIN boxoffice ON movies.id = boxoffice.movie\_id GROUP BY director;

## **SQL Lesson 13: Inserting rows**



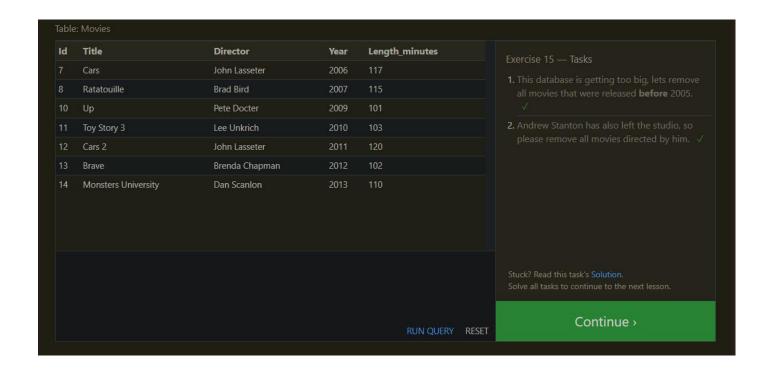
- 1. INSERT INTO movies VALUES (4, "Toy Story 4", "El Directore", 2015, 90);
- 2. INSERT INTO boxoffice VALUES (4, 8.7, 340000000, 270000000);

#### **SQL Lesson 14: Updating rows**



- 1. UPDATE movies SET director = "John Lasseter" WHERE id = 2;
- 2. UPDATE movies SET year = 1999 WHERE id = 3;
- 3.UPDATE movies SET title = "Toy Story 3", director = "Lee Unkrich" WHERE id = 11;

## **SQL Lesson 15: Deleting rows**



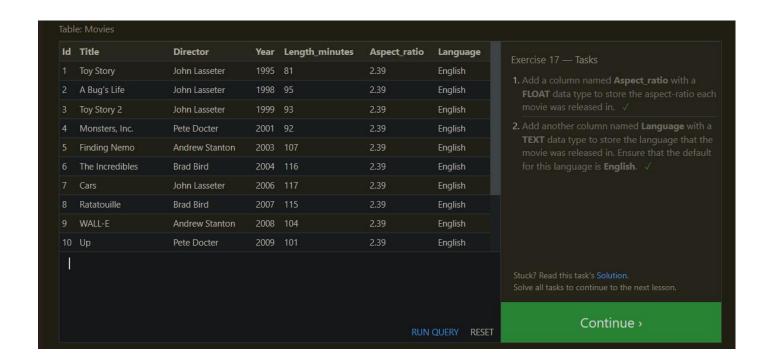
- 1. DELETE FROM movies where year < 2005;
- 2. DELETE FROM movies where director = "Andrew Stanton";

# **SQL Lesson 16: Creating tables**

Table: Database					
Name	Version	Download_count		Exercise 16 — Tasks	
SQLite	3.9	92000000		Create a new table named Database with	
MySQL	5.5	512000000		the following columns:	
Postgres	9,4	38400000		- 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. ✓	
I				Stuck? Read this task's <b>Solution</b> . Solve all tasks to continue to the next lesson.	
			RUN QUERY RESET	Continue >	

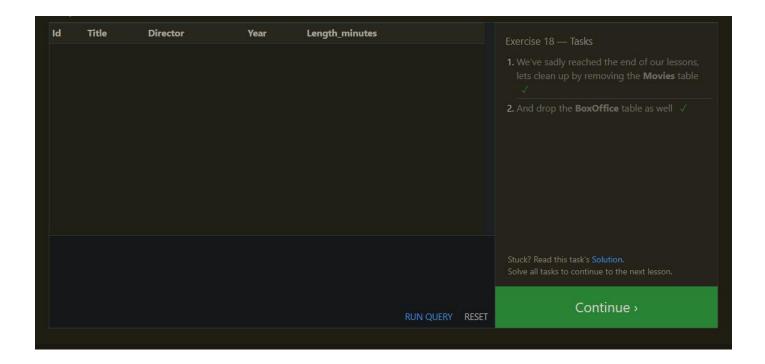
```
CREATE TABLE Database (
Name TEXT,
Version FLOAT,
Download_count INTEGER
);
```

## **SQL Lesson 17: Altering tables**



- 1. ALTER TABLE Movies ADD COLUMN Aspect\_ratio FLOAT DEFAULT 2.39;
- 2. ALTER TABLE Movies ADD COLUMN Language TEXT DEFAULT "English";

## **SQL Lesson 18: Dropping tables**



- 1. DROP TABLE Movies;
- 2. DROP TABLE BoxOffice;

