

# SQL: Introduction and Basic Commands

Home Assignment for Submission

## Selecting a movie in a DVD rental shop

### Topics mentioned

Basic SQL Commands:

- ✓ SELECT, SELECT DISTINCT, WHERE
- ✓ LIMIT, ORDER BY
- ✓ BETWEEN, IN, LIKE, ILIKE

### Task description

Polish your skills in using the basic SQL commands by answering several types of questions in this task.



### What you need to do

#### General Instructions:

- 1 For items **#1** and **#3**, provide the syntactically correct SQL code and the snapshot of the expected data output for the query.
- 2 For item **#2**, write a brief explanation to support your answer for each item. Also, provide the correct SQL statement that will make the syntax valid.

#### Tasks:

- 1 Provide the SQL code and the output for this query criterion.
  - a I need the titles and the length of films that start with the letters “**S**” and “**T**” and have a replacement rate of **15.99 to 20.99**. I need only the first 20 rows starting with the films with the longest running time.
  - b I need the **IDs** and the **titles** of films with a running time of fewer than **100** minutes and replacement costs greater than **15.99**. I only need the films with ratings **G, PG and PG-13**. The output should be ordered by title in ascending order.
- 2 Why would these SQL syntaxes fail?
  - a 

```
SELECT * FROM film
WHERE rating = G
```
  - b 

```
SELECT customer_id
FROM film
```
- 3 Answer the following business case scenario/questions. Provide the SQL syntax and output.
  - a There was a discrepancy with a financial report wherein the payment transactions for a customer with customer ID **#514** were missing. Fortunately, the transactions are still in the database, and your task is to query the data and provide the payment transactions of customer **#514**.
  - b As part of the regular media regulations audit, you need to provide your regulations officer with the amount of **R**-rated films that the DVD rental store has. How many **R**-rated movies does the DVD rental store have?

### Tips and hints

- ✓ For assignments **1A** and **1B**, you will use the **AND** operator to combine multiple commands. The order in which Postgres parses logical operators is the following:
  - 1 — Code in parentheses ( )
  - 2 — **NOT**
  - 3 — **AND**
  - 4 — **OR**
- ✓ If you run into an error, This might be because the order of evaluating your **WHERE** conditions is different from what you're expecting. Do note that you can only use **WHERE** command once. If you're planning to use multiple conditions, you use an additional **AND**.
- ✓ If you have several conditions, remember to include parentheses ( ) so that the server knows in which order to evaluate the query.
- ✓ For assignments **2A** and **2B**, try running them in pgAdmin.
- ✓ For assignment **3B**, try using the **COUNT** function, which we will learn in the next lesson. We encourage you to use online resources and train your search skills. However, there is a way to get the answer without using the **COUNT** function.
- ✓ Remember to include parentheses ( ) so that the server evaluates the query in the right order: first parentheses, **NOT**, **AND**, and lastly, **OR**. And be careful with the correct application of **AND** and **OR** operators.

### Completion criteria

Use this checklist before assigning the homework to check if everything is done.

- For assignments **1A** and **1B**: write SQL code, and take a screenshot of the expected output data.
- Assignments **2A** and **2B**: write a text commentary on why the SQL syntax has an error. Write the correct SQL code for the syntax to work.
- Assignments **3A** and **3B**: provide the requested data. Write the syntax you used.

