Assignment 1B: SELECT, WHERE, DISTINCT

You are the manager of the LaGuardia DVD Rental business. Unlike every other DVD Rental business, your business is booming in sales! So much so that you've decided to hire a SQL expert to help you build a database to store and process all of your data in the store. Before the expert arrives and the store opens in 2 hours, let's see if we can figure out how to navigate our database!

For this assignment, you are encouraged to introduce yourself by answering the following questions. Feel free to express yourself in the format that suits you best, whether that be a written document, a voice memo, or a video. Creativity is welcome!

Please complete the following prompts:

Part 1: Understanding the Basics

Question 1: What is a SELECT statement used for? Write 1-2 sentences explaining its purpose.

A SELECT statement is used in SQL to query or retrieve data from one or more tables in a database. It allows users to specify exactly which data they want to see by selecting specific columns of a table.

Question 2: How does the DISTINCT keyword change the results of a SELECT statement? Provide a brief explanation.

The DISTINCT keyword is used in a SELECT statement to remove duplicate rows from the result set, ensuring that each row returned is unique. This is particularly useful when you want to see all the different values in a column without repetition.

Question 3: Describe a scenario where you would use the WHERE clause in a query

A WHERE clause is used in a query to filter records that fulfill a specified condition, returning only those rows that meet the criteria. For example, in the DVD rental database, you might use a WHERE clause to find all rentals that occurred after a specific date, such as:

*SELECT * FROM rental WHERE rental_date > '2023-01-01';*

This query would return all rental records with a rental date after January 1, 2023.

Part 2: Challenge Prompts

Question 4: Choose one of the 15 tables in our dummy database (e.g., customer, store, staff, etc.). These tables collectively represent the core data elements of a DVD rental

business, offering a wide range of options for querying, data analysis, and understanding business operations through SQL exercises.

Choose 1 (highlight ONE red)

1. actor – stores actor data including first name and last name.
2. film – stores film data such as title, release year, length, rating, etc.
3. film_actor – stores the relationships between films and actors.
4. category – stores film's categories data.
5. film_category - stores the relationships between films and categories.
6. store – contains the store data including manager staff and address.
7. inventory – stores inventory data.
8. rental – stores rental data.
9. payment – stores customer's payments.
10. staff – stores staff data.
11. customer – stores customer data.
12. address – stores address data for staff and customers.
13. city – stores city names.
14. country – stores country names.

Question 5: Take a screenshot of your data output when you use the SELECT statement to return all of the data from the table you chose.

SELECT * FROM <table name>;

REFLECT: How did you feel about executing this step? Explain what you did.

The answer is based on the Student's Reflection.

Question 6: Take a screenshot of your data output when you return **all of the data** from only one column from one of your tables.

SELECT <column name> FROM <table name>;

REFLECT: Describe how you determined which column to select and the importance of that column.

The answer is based on the Student's Reflection.

Question 7: Use the DISTINCT keyword to return unique values from a column of your choice in any table. Take a screenshot of your output.

SELECT DISTINCT <column name> FROM <table name>;

REFLECT: How did you feel about executing this step? Explain what you did.

The answer is based on the Student's Reflection.

Question 8: In your selected table, use the WHERE clause to filter data based on a specific condition of your choice (e.g. column). Take a screenshot of your output.

SELECT * FROM <table name> WHERE <column name> <condition>;

EX. SELECT * FROM film WHERE rating = 'PG';

REFLECT: How did you feel about executing this step? Explain what you did.

The answer is based on the Student's Reflection.

Final Reflection:

A: What did you find most challenging, and how did you overcome it?

The answer is based on the Student's Reflection.

B: How do you see these SQL skills being applied in managing a *LaGuardia DVD Rental business*?

The answer is based on the Student's Reflection.

C: What further questions or interests do you have about SQL and databases after completing this assignment?

The answer is based on the Student's Reflection.

Submission Guidelines
Choose between a document (PDF, DOCX). Ensure your submission is clear and audible/legible.

This assignment is a great opportunity for you to reflect on your motivations and aspirations regarding SQL, and for us as a class to start building a supportive and engaging learning community. If you have any questions or face difficulties with your submission, don't hesitate to reach out via our Slack group.