PROJECT BRIEF

Welcome to the Intermediate SQL Database Query Project! In this task, you will utilize your SQL skills to perform data retrieval, manipulation, and analysis on a sample database.

Objective:

• To demonstrate proficiency in using intermediate SQL query techniques to extract and manipulate data from a relational database.

Task: Intermediate SQL Database Query

Data Retrieval:

Write SQL queries to retrieve data from multiple tables in the database.

Utilize basic SELECT statements to fetch specific columns and rows from the database tables.

Data Manipulation:

Perform data manipulation operations such as filtering, sorting, and aggregating using SQL functions and clauses.

Use JOIN operations to combine data from different tables based on common keys.

Data Analysis:

Write SQL queries to calculate summary statistics, such as counts, averages, and totals, for relevant columns in the database.

Utilize GROUP BY and HAVING clauses to group data and perform aggregate functions on grouped results.

Conditional Logic:

Implement conditional logic using SQL's CASE statements to categorize and transform data based on specified conditions.

Evaluation Criteria:

Participants will be evaluated based on the following criteria:

• Accuracy and efficiency of SQL queries written.

• Clarity and readability of SQL code.

• Correctness of data manipulation and analysis results.

• Effective use of SQL functions and clauses.

Submission Requirements:

Participants are required to submit:

• SQL script file containing:

SQL queries written to retrieve, manipulate, and analyze data from the sample database.

• Documentation:

Description of the database schema and tables used.

Explanation of SQL query logic and any data transformations performed.

Timeline:

Deadline: 7 days after project initiation.

Submission Mode:

• File upload to the designated project submission platform.

Data Dictionary:

- brand_name: The brand name of the smartphone.
- model: The model name or number of the smartphone.
- price: The price of the smartphone in RUPEES.
- rating: The rating of the smartphone out of 100.
- has_5g: Indicates whether the smartphone supports 5G connectivity (TRUE/FALSE).
- has_nfc: Indicates whether the smartphone has NFC capability (TRUE/FALSE).

- has_ir_blaster: Indicates whether the smartphone has an IR blaster (TRUE/FALSE).
- processor_name: The name of the processor used in the smartphone.
- processor_brand: The brand of the processor used in the smartphone.
- num_cores: The number of cores in the processor.
- processor_speed: The speed of the processor in GHz.
- battery_capacity: The battery capacity of the smartphone in mAh.
- fast_charging: The fast-charging capability of the smartphone in watts.
- ram_capacity: The RAM capacity of the smartphone in GB.
- internal_memory: The internal storage capacity of the smartphone in GB.
- refresh_rate: The refresh rate of the smartphone display in Hz.
- resolution: The resolution of the smartphone display.
- num_rear_cameras: The number of rear cameras on the smartphone.
- num_front_cameras: The number of front cameras on the smartphone.
- os: The operating system used in the smartphone.
- primary_camera_rear: The resolution of the primary rear camera in megapixels.
- primary_camera_front: The resolution of the primary front camera in megapixels.
- extended_memory: The capacity of extended memory (e.g., microSD card support) in the smartphone, if applicable.