OVERVIEW OF MAVEN MOVIES MySQL DATA ANALYSIS PROJECT

The project involves working and analysing the Maven Movies database, which consists of **16 related tables including Customers (Name, Address, etc.), Business (Staff, Rentals, etc.)**, **and Inventory (Films, Categories, etc.)**. To address various metrics and questions, the project utilises an **ER diagram, aggregate functions, case statements, SQL clauses and operators, database normalisation, table relationships and cardinality, various types of SQL joins, bridging tables, error handling, and data from Excel and Maven Analytics, LLC.**

The project objectives can be summarised as follows:

Retrieve a list of all staff members, including their first and last names, email addresses, and the store identification number where they work.

Obtain separate counts of inventory items held at each of the two stores.

Determine the count of active customers for each store separately.

Calculate the count of all customer email addresses stored in the database to assess the liability of a potential data breach.

Evaluate the diversity of the film offering by providing the count of unique film titles at each store and the count of unique film categories.

Understand the replacement cost of films by determining the least expensive, most expensive, and average replacement costs among all films carried.

Establish payment monitoring systems and maximum payment processing restrictions by providing the average payment processed and the maximum payment processed.

Gain insights into the customer base by generating a list of all customer identification values along with the count of their all-time rentals, prioritising high-volume customers.

Obtain the names of managers at each store, along with the full addresses (street address, district, city, and country) of the properties using a left join.

Compile a comprehensive inventory list, including the store ID number, inventory ID, film name, film rating, rental rate, and replacement cost.

Generate a summary-level overview of the inventory by determining the count of inventory items with each rating at each store using a left join.

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Analyse inventory diversification in terms of replacement cost by calculating the number of films, average replacement cost, and total replacement cost, sliced by store and film category using a left join.

Provide a list of customer names, their corresponding store, their active status, and their full addresses (street address, city, and country) using a left join.

Analyse customer spending and identify the most valuable customers by creating a list of customer names, their total lifetime rentals, and the sum of all payments collected, ordered by total lifetime value.

Consolidate the list of advisor and investor names in a single table, noting their roles and, for investors, their affiliated companies using a union join.

Assess the coverage of the most-awarded actors by calculating the percentage of actors with three, two, and one types of awards for which the business carries a film, using case statements.

Throughout the project, an ER diagram was used to understand the database structure, aggregate functions were employed for various calculations, appropriate SQL clauses and operators were utilised, and error handling was implemented. Data from Excel and Maven Analytics, LLC were incorporated to enrich the analysis. The project also involved creating the Maven Movies database using an SQL file, implementing database normalisation techniques, establishing table relationships and cardinality, and addressing the requirements specified in the given questions.

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