Data Journey: From Raw CSV to Insightful Power BI Dashboard

This project showcases a comprehensive data analysis workflow, demonstrating the ability to transform raw data into actionable business intelligence. The process began with the acquisition of data in CSV format, a common data storage method. The following key stages were undertaken:

1. **Data Warehousing with MySQL:** To establish a robust and scalable data management system, a MySQL database was created. The raw CSV data was then imported into this database, laying the foundation for structured data handling and efficient querying. This step highlights proficiency in database management and data warehousing principles.
2. **Seamless Power BI Integration:** Power BI, a leading business intelligence tool, was connected directly to the MySQL database. This connection enabled the dynamic retrieval of data, ensuring that the dashboard reflects the most up-to-date information. This demonstrates the ability to integrate disparate systems and leverage the power of relational databases within a BI environment.
3. **Data Refinement with Power Query:** The raw data, even within a database, often requires cleaning and transformation. Power Query, a powerful data transformation tool within Power BI, was employed to cleanse and process the data. This involved handling inconsistencies, addressing missing values, and restructuring the data into a format optimized for analysis. This stage underscores expertise in data manipulation and ETL (Extract, Transform, Load) processes.
4. **DAX-Powered Insights:** To extract meaningful insights, new metrics and dimensions were calculated using DAX (Data Analysis Expressions). DAX is a formula language that extends Power BI's analytical capabilities. The creation of custom measures and columns allowed for sophisticated analysis of key performance indicators, such as revenue trends, customer segmentation, and delinquency rates. This highlights advanced analytical skills and the ability to derive business value from data.
5. **Visual Storytelling with Power BI:** The culmination of this process was the development of an interactive Power BI dashboard. This dashboard presents a clear and compelling visual narrative of the data, enabling stakeholders to monitor credit card operations, identify trends, and make informed decisions. The dashboard's design emphasizes user experience, ensuring that complex information is easily accessible and understandable.