**Project: Credit Card Financial Data Analysis**

**Overview:** In this project, I utilized Power BI and DAX to analyse and visualize credit card financial data. The objective was to create a comprehensive dashboard that highlights key financial metrics and trends, providing actionable insights for the business. The project involved data cleaning, dataset organization using DAX, and the creation of interactive visualizations to monitor performance over time.

**Key Steps and Methodology:**

1. **Data Cleaning:**
   * Imported the raw dataset into Power BI.
   * Performed data cleaning to handle missing values, remove duplicates, and ensure data consistency.
   * Applied data transformations to standardize formats and improve data quality.
2. **Data Organization with DAX:**
   * Utilized DAX (Data Analysis Expressions) to create calculated columns and measures.
   * Organized the dataset by defining key metrics such as total revenue, transaction count, and customer count.
   * Implemented complex DAX formulas to calculate week-on-week and overall changes.
3. **Dashboard Creation:**
   * Designed an interactive dashboard in Power BI to visualize the financial data.
   * Created various charts, graphs, and tables to represent key metrics and trends.
   * Implemented slicers and filters to enable dynamic data exploration.

**Key Findings:**

1. **Week-on-Week Change:**
   * **Revenue Increase:** Observed a 28.8% increase in revenue.
   * **Total Transaction Amount and Count:** Increased by 16.7% and 14.3% respectively.
   * **Customer Count:** Increased by 19.6%.
2. **Overall Change:**
   * **Overall Revenue:** Total revenue reached $57 million.
   * **Total Interest:** Accumulated $8 million in interest.
   * **Total Transaction Amount:** Amounted to $46 million.
   * **Customer Contribution:** Male customers contributed $31 million, while female customers contributed $26 million.
   * **Credit Card Types:** Blue and silver credit cards accounted for 93% of overall transactions.
   * **Activation Rate:** Increased by 57.7%.

**Skills and Tools Used:**

* **Power BI:** For data visualization and dashboard creation.
* **DAX:** For data transformation, calculation of key metrics, and organizing the dataset.
* **Data Cleaning and Preparation:** Ensuring data accuracy and consistency before analysis.

**Impact:** The insights derived from this project provided valuable information for the business to understand customer behaviour, optimize marketing strategies, and improve financial performance. The week-on-week and overall change analysis helped in identifying growth trends and areas needing attention, leading to more informed decision-making.

**Conclusion:** This project showcases my ability to use Power BI and DAX to transform raw data into meaningful insights through interactive dashboards. My work demonstrates a strong proficiency in data analysis, visualization, and the ability to drive data-driven decisions that contribute to organizational success.

In this project, I used Power BI and DAX to analyse credit card financial data. I cleaned the dataset, organized it using DAX, and created an interactive dashboard. The objective was to create a comprehensive dashboard that highlights key financial metrics and trends, providing actionable insights for the business.

If we are talking about the key steps then first is **data cleaning** in that I Imported the raw dataset into Power BI. Performed data cleaning to handle missing values, remove duplicates, and ensure data consistency. Applied data transformations to standardize formats and improve data quality. Secondly **data organisation with DAX** in that I Utilized DAX (Data Analysis Expressions) to create calculated columns and measures. Organized the dataset by defining key metrics such as total revenue, transaction count, and customer count. Implemented complex DAX formulas to calculate week-on-week and overall changes. And the third one or in the final steps **Dashboard creation** IDesigned an interactive dashboard in Power BI to visualize the financial data. Created various charts, graphs, and tables to represent key metrics and trends. Implemented slicers and filters to enable dynamic data exploration.

If we are talking about the key findings then my findings are divided on two types first is **Week on Week** **change** in that I found the percentage of total revenue increased, total transaction amount and count and customer count. Another one was the **overall change** in that I found that the total revenue, total interest, total transaction amount and count, transactions contributed on types of cards, contribution on the basis of gender, education, occupation, age, etc and the activation rate percentage, etc.

The dashboard provided actionable insights into customer behaviour and financial performance, aiding in strategic decision-making. The week-on-week and overall change analysis helped in identifying growth trends and areas needing attention, leading to more informed decision-making.