**Customers Financial Data Analysis**

**Project Description:**

Analysing The Customers Financial Data Using Microsoft Excel for Data Collection, MS SQL Server for Database Management and Microsoft Power BI For Data Visualization to gain insights into their customers demographics, spending behaviours, and financial preferences.

# **Problem Statement:**

1. **Demographic Classification:**
   * Classify customers based on demographic data such as age group, gender, occupation, and other relevant attributes.
   * Provide insights into how these demographic factors influence customer behaviour and preferences.
2. **Average Income Utilization Percentage:**
   * Calculate the average income utilization percentage for customers, defined as the ratio of average spending to average income.
   * This metric will be key in assessing the likelihood of customers to use credit cards, with a higher utilization percentage indicating a greater likelihood.
3. **Spending Insights:**
   * Analyse where customers spend their money the most.
   * Assess the impact of factors such as occupation, gender, city, and age on spending patterns.
   * Use these insights to inform the design of relevant credit card features for specific target groups.
4. **Key Customer Segments:**
   * Identify and profile key customer segments that are likely to be the highest-value users of the new credit cards.
   * This includes understanding their demographics, spending behaviours, and financial preferences.
5. **Credit Card Feature Recommendations:**
   * Based on the data insights and secondary research, provide recommendations for key features to include in the new credit card.
   * The recommendations should aim to improve the likelihood of credit card usage among identified key segments.
6. **Additional Insights:**
   * Explore the data further to uncover any additional valuable insights.
   * Document any discrepancies found in the data and include them as considerations in the presentation.

**Approach:**

* Conduct data analysis to classify customers and calculate key metrics.
* Use statistical and analytical methods to identify spending patterns and segment customers.
* Perform secondary research to support feature recommendations.
* Present findings and recommendations clearly and concisely, highlighting key insights and any data discrepancies.

Filter Insights

* Total Customers in specific city
* Total Spends on specific category
* No of customers spending on Bills
* Customers income and spends relation at occupation

**SQL Scenario Based Questions**

 **Income Analysis by Occupation and Gender**:

* What is the average income of salaried IT employees in Bengaluru?
* Compare the average income of male and female business owners.

 **Spending Behavior by Category and Payment Type**:

* What is the total spend on Electronics using UPI payment type?
* Which category had the highest spend in the month of August?

 **Demographic Insights**:

* How many single females aged 21-24 are there in the dataset?
* Identify the city with the highest number of salaried IT employees.

 **Income and Spending Correlation**:

* Is there a correlation between average income and the category of spending? For instance, do higher income groups spend more on health and wellness?

 **City-Specific Spending Patterns**:

* What is the total spend by customers from Chennai in the month of September?
* How does the spending on travel differ between customers from Mumbai and Hyderabad?

 **Payment Preferences**:

* Which payment type is most commonly used for grocery purchases?
* What is the average spend on health and wellness using credit cards?

 **Age Group Spending Analysis**:

* Which age group spends the most on entertainment?
* Compare the spending habits on apparel between customers aged 25-34 and those aged 35-45.

 **Occupation-Based Spending**:

* How much do freelancers from Bengaluru spend on health and wellness?
* What is the total spend on groceries by government employees?

 **Monthly Spending Trends**:

* Identify the month with the highest total spend across all categories.
* Compare the total spends on food for the months of May and July.

 **Marital Status and Income**:

* What is the average income of married salaried IT employees in Delhi NCR?
* Analyze the spending patterns on bills by single customers.

 **Detailed Spending Breakdown**:

* Provide a detailed breakdown of spending by category for customers with an average income above 60,000.
* What is the total spend on apparel using debit cards?

 **Customer Segmentation**:

* Identify the segment of customers (based on age group, occupation, and city) with the highest average income.
* How does the spending on electronics differ between salaried IT employees and business owners?

**Critical Scenario Based Questions**

 **Fraud Detection and Unusual Spending Patterns**:

* Identify any customers whose spending patterns significantly deviate from their average income, possibly indicating fraudulent activity.
* Are there any instances where customers made unusually high spends in a single month compared to their usual spending habits?

 **Credit Risk Assessment**:

* Which customers have high spends on credit cards but low average income, potentially indicating a credit risk?
* Are there any customers with consistently high monthly spending on essential categories like groceries and bills, but low average income, indicating potential financial stress?

 **Targeted Marketing and Customer Retention**:

* Identify high-income customers with low spending on luxury categories like travel and electronics, indicating potential targets for luxury product marketing.
* Which demographic groups (based on age, occupation, and city) have low engagement in certain spending categories that could be targeted for promotional campaigns?

 **Budgeting and Financial Planning Services**:

* Which customers have high spends on non-essential categories (entertainment, apparel) but low average income, indicating a need for financial planning services?
* Are there any patterns indicating overspending in certain demographics, suggesting the need for targeted financial literacy programs?

 **Product Development and Service Enhancement**:

* Identify gaps in spending on health and wellness across different cities and occupations, suggesting potential markets for new health-related products or services.
* Which customers show a high reliance on UPI and debit cards for small transactions, indicating a need for more efficient payment solutions?

 **Impact of Economic Changes on Spending**:

* Analyze if there is a noticeable drop in spending in any category during specific months that could correlate with economic events or crises.
* Are there any trends indicating changes in spending habits due to inflation or other economic pressures in specific demographic groups?

 **Customer Satisfaction and Service Improvement**:

* Identify customers with high spends on bills and groceries but low spends on entertainment and travel, indicating potential dissatisfaction or financial constraints.
* Are there any cities where spending on essential services is significantly lower, indicating potential issues with service availability or customer satisfaction?

 **Market Expansion and Strategy**:

* Determine which cities show the highest average spends across all categories, indicating strong markets for expansion.
* Are there any underperforming regions where spends on key categories are low, suggesting the need for strategic interventions or promotions?

 **Socioeconomic Insights**:

* Analyze if there's a correlation between high-income occupations and spending on essential vs. non-essential categories.
* How do spending patterns on health and wellness vary between different marital statuses and what could be the underlying reasons?

 **Service Personalization and Customer Engagement**:

* Identify customers with diverse spending patterns across multiple categories, indicating a preference for varied products and services that could be leveraged for personalized marketing.
* Are there any demographic groups with specific spending patterns that suggest a preference for certain payment types, indicating potential areas for developing tailored payment solutions?