

An abstract geometric design on the left side of the slide. It features a dark blue background with various geometric shapes and patterns. A white circle is positioned near the top left. Below it, a light blue semi-circle is visible. To the right of the semi-circle, there are concentric circles. Further down, there are several parallel lines forming a series of nested rectangles. The design is composed of various shades of blue, purple, and pink, creating a modern and artistic look.

# **FINANCIAL ANALYSIS**

A decorative graphic in the top-left corner of the slide. It consists of several overlapping geometric shapes: a dark blue triangle with white concentric circles, a light blue circle, a dark blue square with white concentric circles, a dark purple triangle, a bright pink square with white concentric circles, and a grey square with white concentric circles. A small dark blue circle is positioned at the intersection of the dark blue triangle and the bright pink square.

# AGENDA

Business Problem

Tools Used

Understanding Problems & Solutions

Data Transformations

Key Insights

Dashboard

# BUSINESS PROBLEM



Daily receive around 25 financial data files via email at 3 PM from the distributed survey team.



Tight deadline to process and build the dashboards by 8 PM on the same day.



## Current Flow



Downloading Files



Combining Files



Cleaning Files



Building Dashboard



Sharing Insights

# CONTINUE...

- **Challenges Faced:**

- Time-consuming processes affecting on-time delivery.
- Increase labor cost (~\$12000/Month).
- Increase error rates
- Resource strain impacting ongoing projects.

- **What Client Want?**

- Reduce Time
- Minimize Errors during data manipulation and processing.
- Reduce Costs
- Reduce Workload

# TOOLS USED



Outlook



Google Drive



Microsoft Power  
Automat



API Services



Python



Power BI Desktop



Power BI Services/  
Power Fabric



# UNDERSTANDING PROBLEMS & SOLUTIONS

Time-saving automation strategy

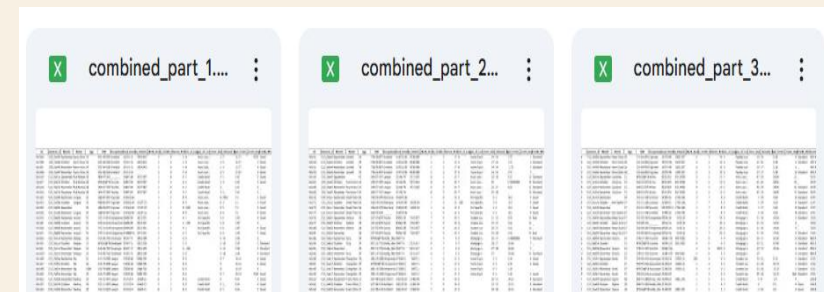
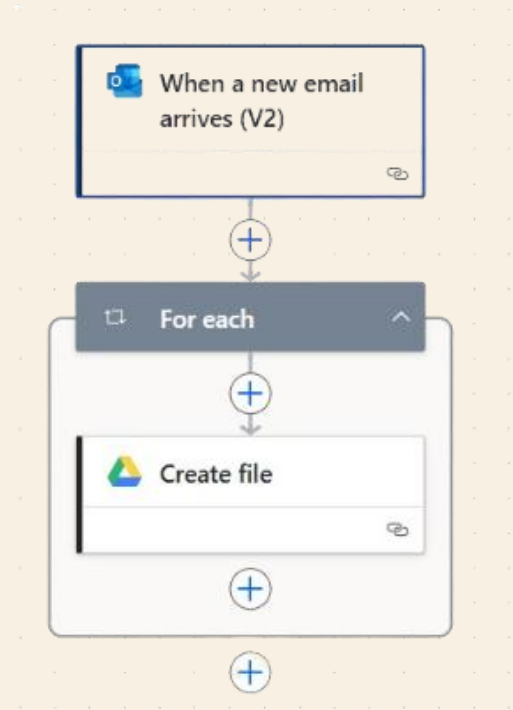
# AUTOMATION PROCESS

## Email rule setup in Outlook :

- If subject or body contains keywords "Credit Score",
  - Move email to folder name "FA".

## Power Automate Workflow :

- **Trigger :**
  - When a new mail arrives (V2) + FA folder + Includes email attachment.
- **Action :**
  - Save each attachment to a specific Google Drive folder.
- **Fetch Data from Google Drive to Power BI :**
  - Direct Connection from Power Desktop to Drive isn't Possible.
  - Solution :
    - Use GCP API Key to fetch data using python





# DATA TRANSFORMATION



# DATA TRANSFORMATION

Data transformation enhances accuracy, consistency, and performance, ensuring refined data for seamless analysis and meaningful insights.

## Key Tasks Performed:

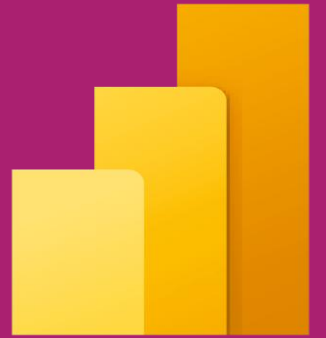
- **Removed Unnecessary Columns:** Eliminated redundant data to improve efficiency.
- **Handled Missing Values:** Replaced blank spaces with appropriate defaults for consistency.
- **Changed Data Types:** Ensured compatibility by converting data formats.
- **Managed Outliers:** Adjusted extreme values in *Age* and *Number of Bank Accounts* to enhance accuracy.

## Impact:

Improved data reliability, better analytical insights, and optimized processing for decision-making.

Would you like me to refine or add visuals to this content?

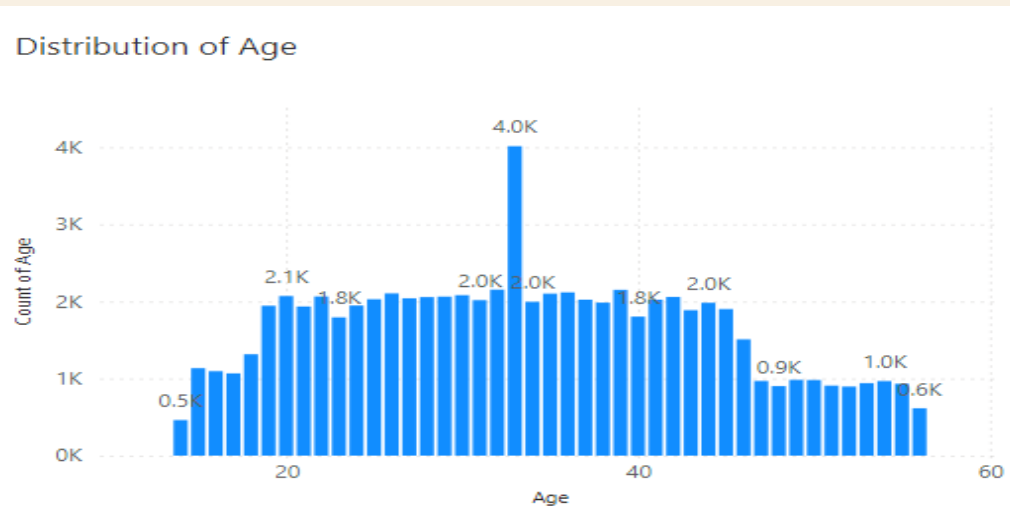
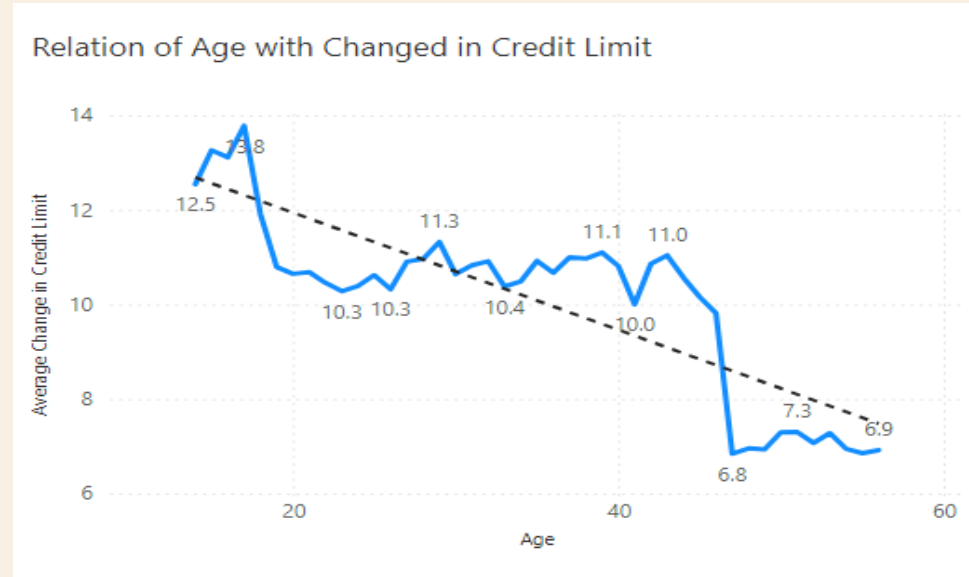
# KEY INSIGHTS & DASHBOARD



# QUESTIONS & SOLUTIONS

## Relationship between Age and changes in credit limit :

At 13.78, 17 had the highest Average of Changed Credit Limit and was 101.38% higher than 47, which had the lowest Average of Changed Credit Limit at 6.84



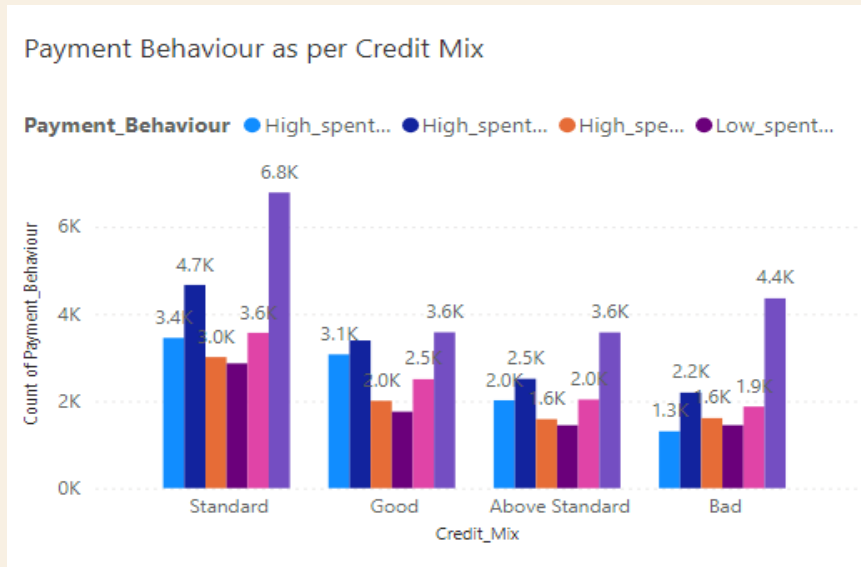
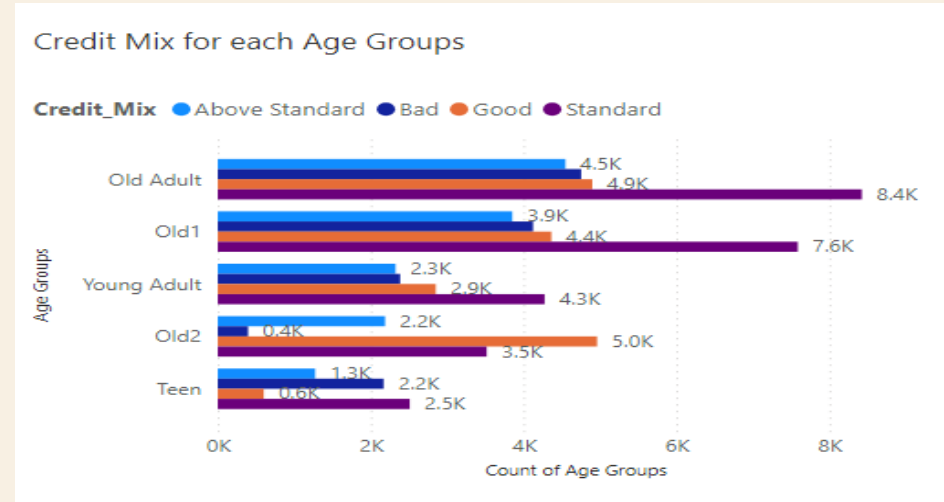
## Age Distribution :

At 4,013, 33 had the highest Count of Age and was 770.50% higher than 14, which had the lowest Count of Age at 461.

# CONTINUE...

## Age Group Wise Credit Mix:

- Standard had the highest total Count of Age Groups at 26,313, followed by Good, Above Standard, and Bad.
- Old Adult in Credit Mix Standard made up 11.70% of Count of Age Groups.



## Payment Behaviour as per Credit Mix:

Standard in Payment Behaviour Low spent Small value payments made up 10.19% of Count of Payment Behaviour.

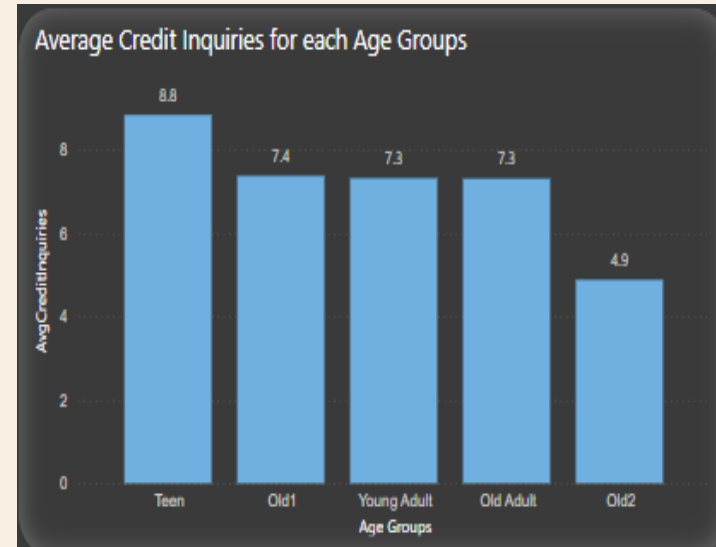
# CONTINUE...

## Average Credit Inquiries & Potential Customers:

Potential Customers		
Age	AvgCreditInquiries	Potential Customers
14	9.58	Potential Customer
15	9.98	Potential Customer
16	9.84	Potential Customer
17	9.78	Potential Customer
18	8.51	Potential Customer
20	7.58	Potential Customer
27	7.52	Potential Customer
28	7.62	Potential Customer
29	7.55	Potential Customer
37	7.52	Potential Customer
39	7.58	Potential Customer
40	7.58	Potential Customer
43	7.68	Potential Customer

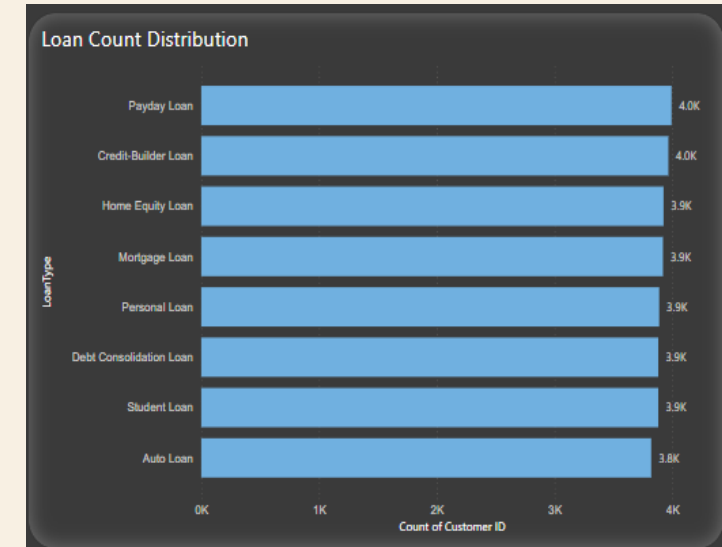
Potential customers are defined as individuals whose ages correspond to an average number of credit inquiries exceeding 7.5.

## Average Credit Inquiries for each Age Group:



At 8.84, Teen had the highest Average Credit Inquiries and was 80.96% higher than Old2, which had the lowest Average Credit Inquiries at 4.88.

## Loan Distribution :



Payday Loan had the highest Count of Customers at 3,993.

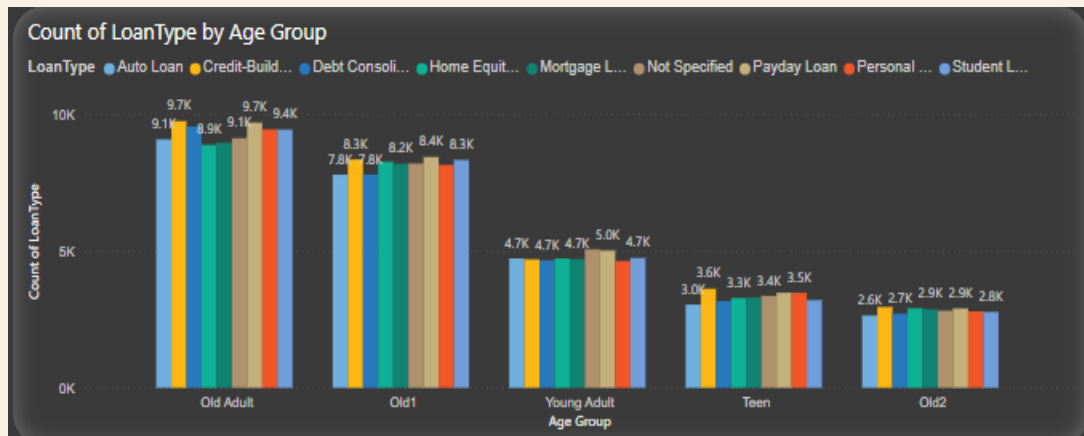
Auto Loan had the lowest Count of Customers at 3,820.

# CONTINUE...

## LTV Score (LifeTime Value Score)

LTV Score Based Promotions	
Age	LTV Score Discount
14	15% off on online purchases+10000 worth gift hampers
15	Any loan at 5% interest rate
16	Any loan at 5% interest rate
17	Any loan at 5% interest rate
19	Any loan at 5% interest rate
25	15% off on online purchases+10000 worth gift hampers
26	Any loan at 5% interest rate

```
LTV Score =  
VAR AvgAnnualIncome = CALCULATE(AVERAGE(combined_df[Annual_Income]))  
VAR AvgDelayFromDueDate = CALCULATE(AVERAGE(combined_df[Delay_from_due_date]))  
VAR AvgAmountInvested = CALCULATE(AVERAGE(combined_df[Amount_invested_monthly]))  
VAR AvgMonthlyBalance = CALCULATE(AVERAGE(combined_df[Monthly_Balance]))  
  
VAR AvgCreditScore =  
    CALCULATE(  
        AVERAGEX(  
            VALUES(combined_df[Credit_Mix]),  
            SWITCH(  
                TRUE(),  
                combined_df[Credit_Mix] = "Good", 3,  
                combined_df[Credit_Mix] = "Above Standard", 2,  
                combined_df[Credit_Mix] = "Standard", 1,  
                combined_df[Credit_Mix] = "Bad", 0  
            )  
        )  
    )  
  
VAR LTV =  
(0.3*AvgAnnualIncome -  
    0.15*AvgDelayFromDueDate +  
    0.4*AvgCreditScore +  
    0.075*AvgAmountInvested +  
    0.075*AvgMonthlyBalance)  
  
RETURN  
LTV
```



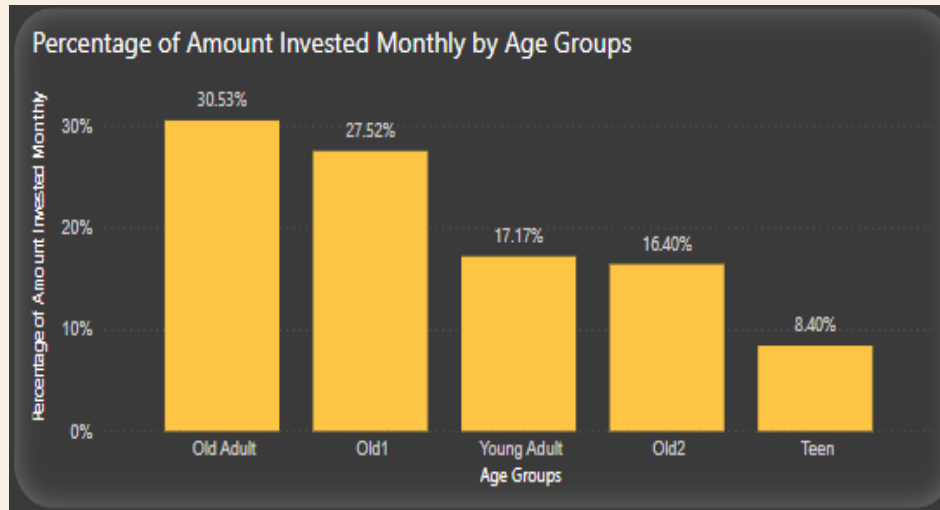
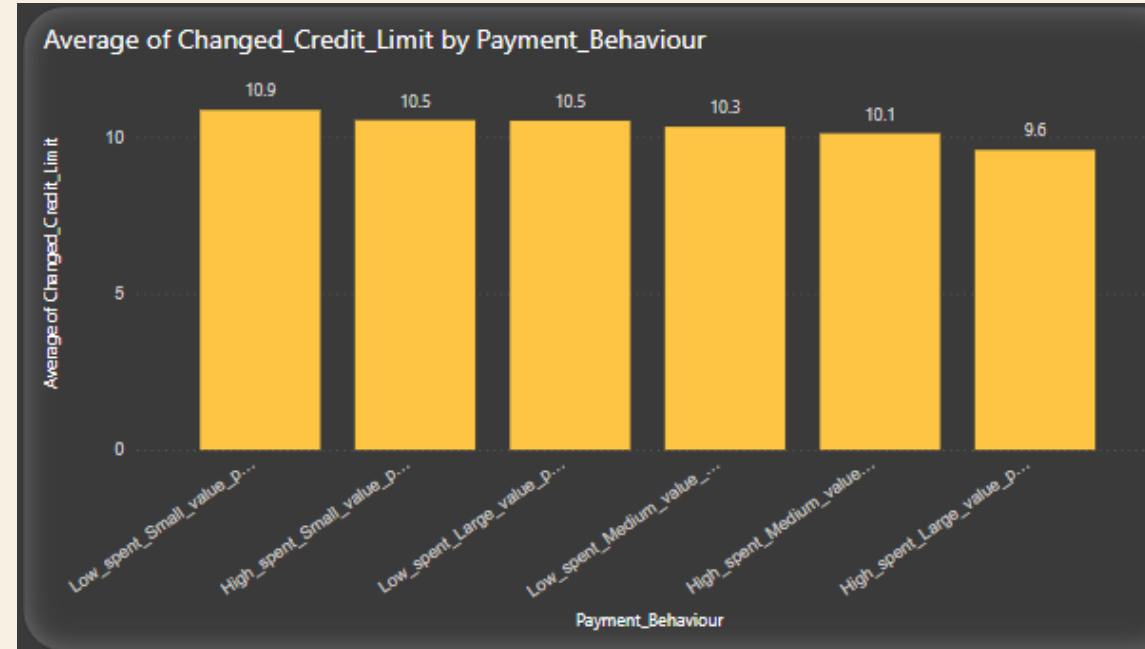
## Cout of Loan Type of Age Group :

Older adults take out more loans than other age groups across all loan categories.

# CONTINUE...

## Average change of credit limit by payment behaviour :

At 10.86, Low spend small value payments has the highest Average of changed credit limit and was higher than High spend large value payment, which had the lowest Average of changed credit limit at 9.58.



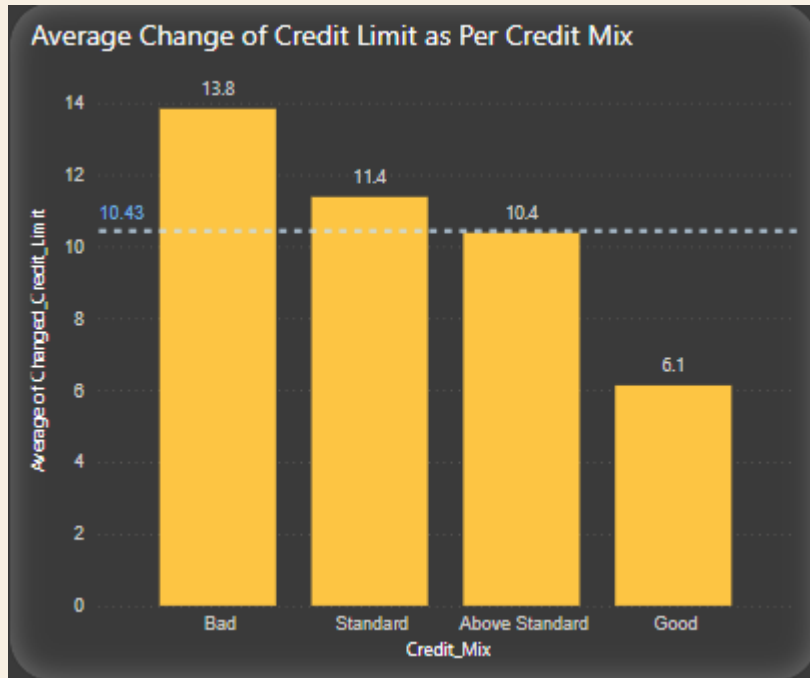
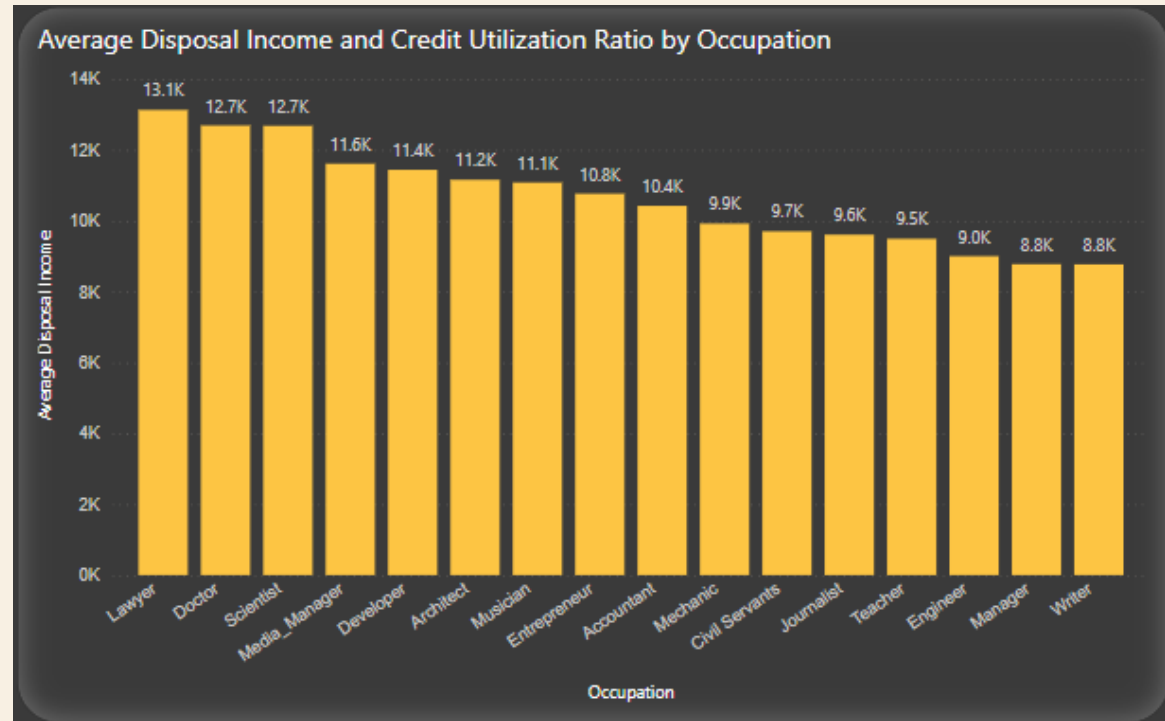
## Percentage of Amount Invested Monthly by Age Groups:

At 30.53%, Old Adult had the highest Percentage of Amount Invested monthly and was 263.58% higher than Teen (8.4%).

# CONTINUE...

## Average Disposal Income by Occupation:

At 13130.44, Lawyer had the highest Average Disposal Income and was 49.7% highest than writer, which had the lowest Average Disposal Income at 8771.43.



## Average Change as per Credit Mix:

Bad Credit Mix had the highest Average of change in credit limit at 13.8 and was 125.88% higher than Good Credit Mix.





# DASHBOARD

Interactive Report

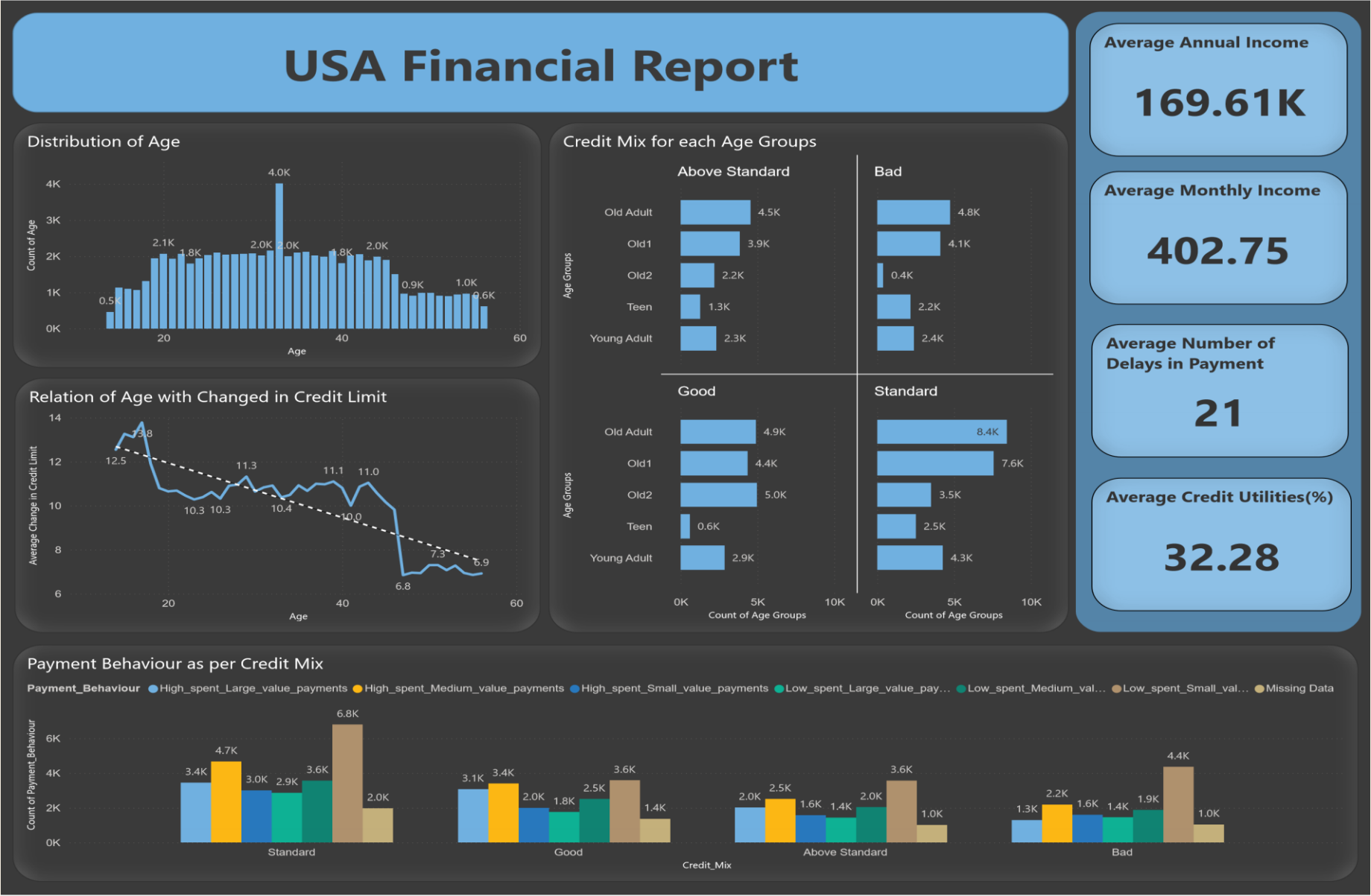
Weekly Refresh

- Scheduled every Friday at 11 AM

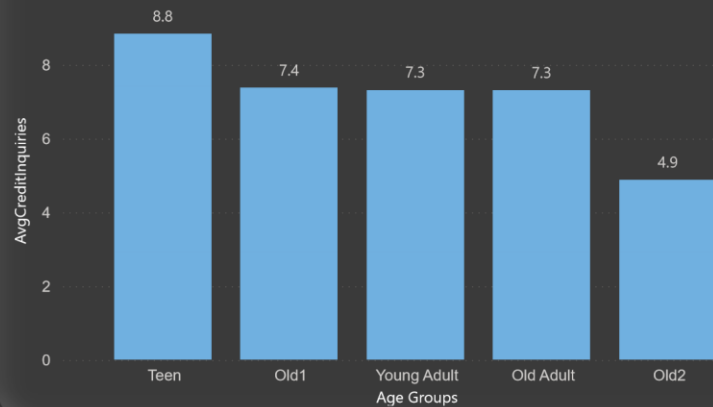
Auto-Update Report & Dashboard

Update Alerts

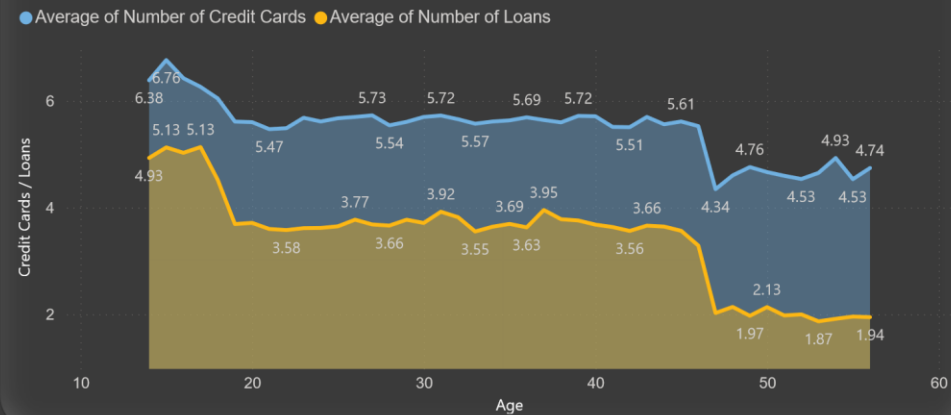
# DASHBOARD



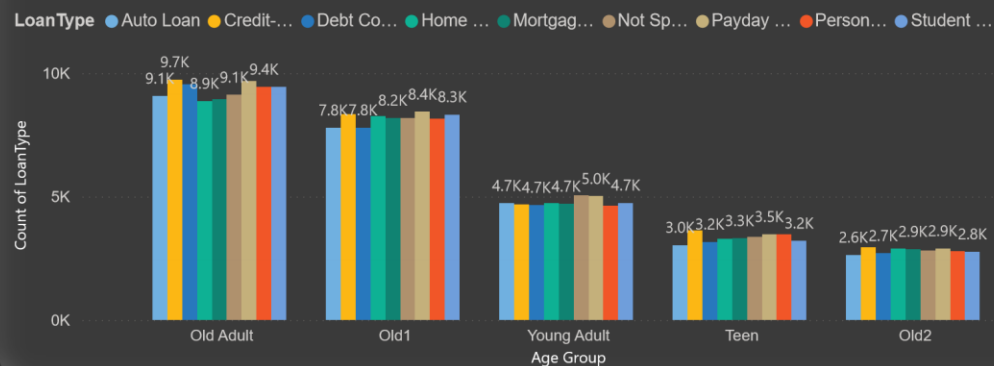
Average Credit Inquiries for ea Age Groups



Average of Number of Credit Cards and Loans As per Age



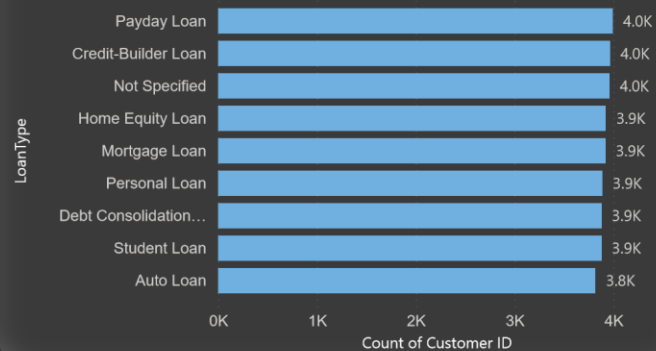
Count of LoanType by Age Group and LoanType



Potential Customers

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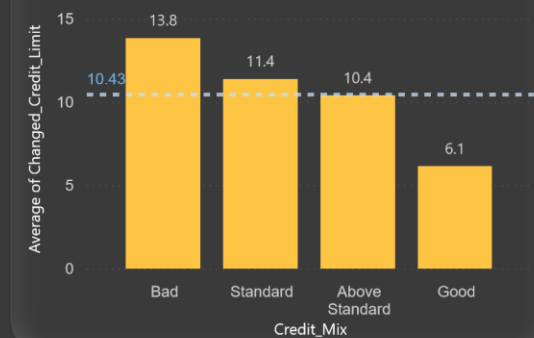
Loan Count Distribution



LTV Score Based Promotions

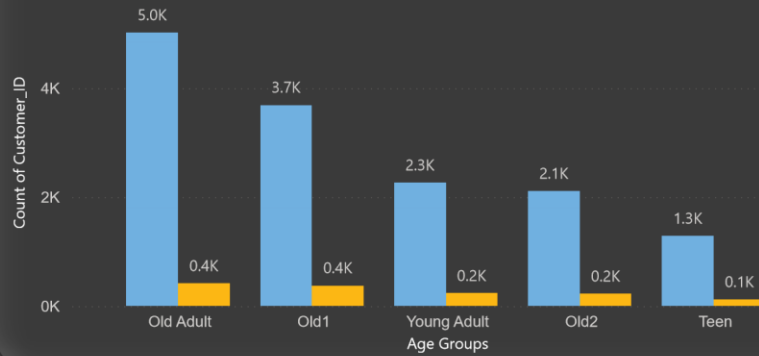
Age	LTV Score Discount
14	15% off on online purchases+10000 worth gift hampers
15	Any loan at 5% interest rate
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17	Any loan at 5% interest rate
19	Any loan at 5% interest rate

Average Change of Credit Limit as Per Credit Mix

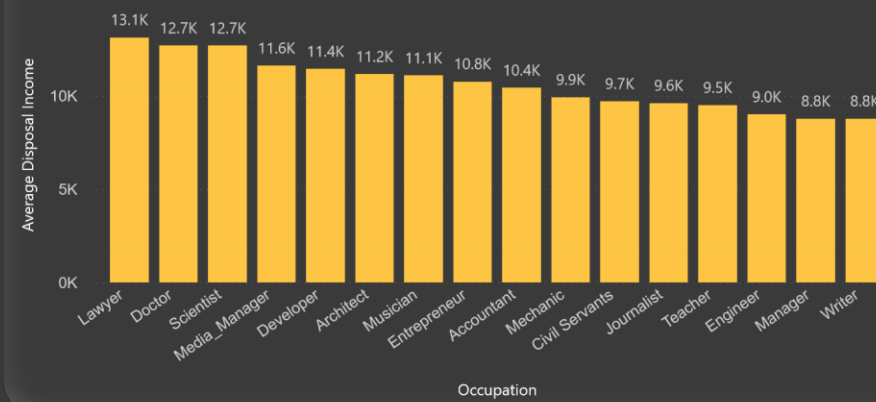


### Number of Customers by Age Groups and Risk Category

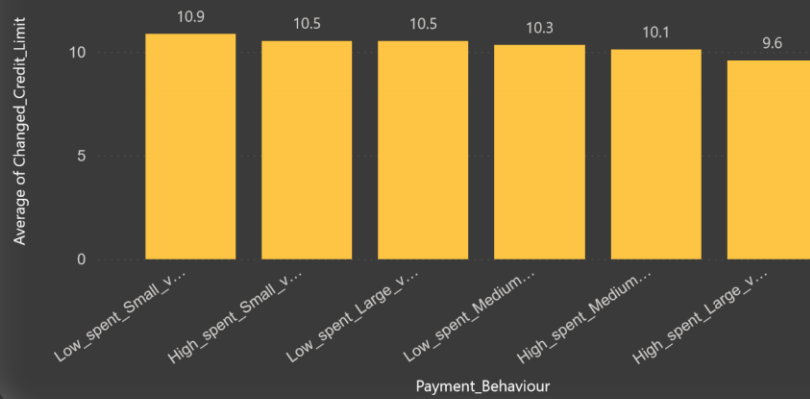
Risk of Category ● Low Risk ● Medium Risk



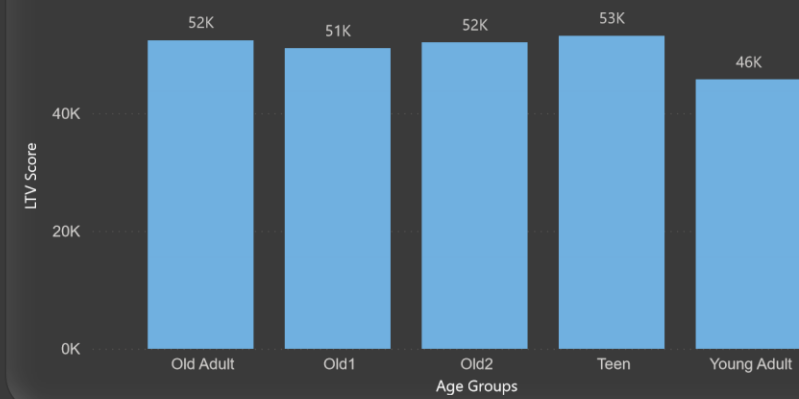
### Average Disposal Income and Credit Utilization Ratio by Occupation



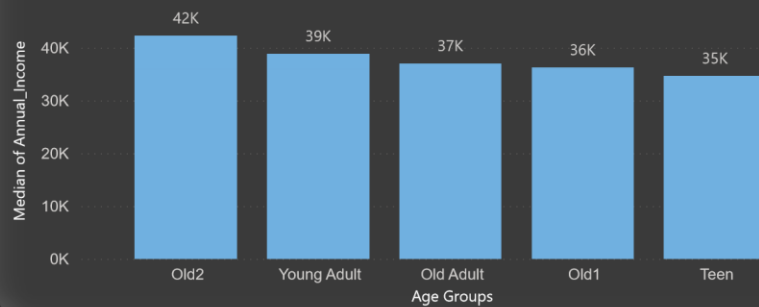
### Average of Changed\_Credit\_Limit by Payment\_Behaviour



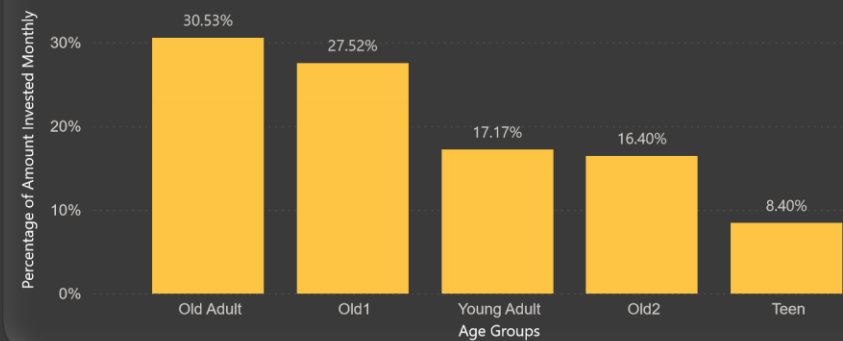
### LTV Score by Age Groups



### Median of Annual\_Income and Sum of Credit\_Utilization\_Ratio by Age Groups



### Percentage of Amount Invested Monthly by Age Groups



# THANK YOU



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<https://github.com/Prayesh13>