



Project Proposal

Industry: Mortgage and Financial Services

Company: Rocket Mortgage

Why this Industry?

I have chosen the mortgage and financial services industry due to its significant role in personal finance and its growing importance in today's economy. This industry offers rich insights into customer behaviour, lending practices, and creditworthiness, making it ideal for a data-driven analysis.

Dataset:

I am using a dataset that includes six key tables: Asset, Liabilities, Borrowers, Credit Reports, Income, and Mortgage. These tables offer a comprehensive view of borrower profiles, financial health, and mortgage data. The dataset provides detailed information on customers' financial status and obligations, which is crucial for marketing and financial analysis.

How I Found the Dataset:

The dataset was provided during a college event where a Rocket Mortgage company collaborated with my institution for a competition. They shared this data for analysis, allowing us to explore borrower financial profiles within the mortgage industry.

Marketing Problem:

The key marketing problem I will focus on is customer segmentation. Specifically, I will explore how we can segment borrowers based on their financial health (e.g., assets, liabilities, income) and credit behaviour to identify which segments are most profitable and likely to churn. This segmentation will help design targeted marketing strategies aimed at improving customer acquisition and retention, particularly for financially stable or high-potential customers.

Approach to Solving the Problem:

1. Data Cleaning: I will clean and preprocess the dataset to handle any missing or inconsistent data.



2. Segmentation: Using clustering techniques (like K-Means), I will segment customers based on key financial factors such as assets, liabilities, and credit scores.

3. Churn Analysis: I will investigate the behaviour of different segments to determine which groups are most likely to churn and why.

4. Marketing Strategy Development: Based on the analysis, I will propose targeted marketing strategies aimed at retaining high-value customers and re-engaging those at risk of churn.

Expected Outcome:

I hope to provide insights that will enable the company to:

- Identify high-value borrower segments.
- Develop targeted marketing campaigns.
- Improve customer retention by addressing the needs of at-risk segments.
- Enhance overall marketing effectiveness through data-driven decision-making.