



# Lending Club Case Study

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# Introduction

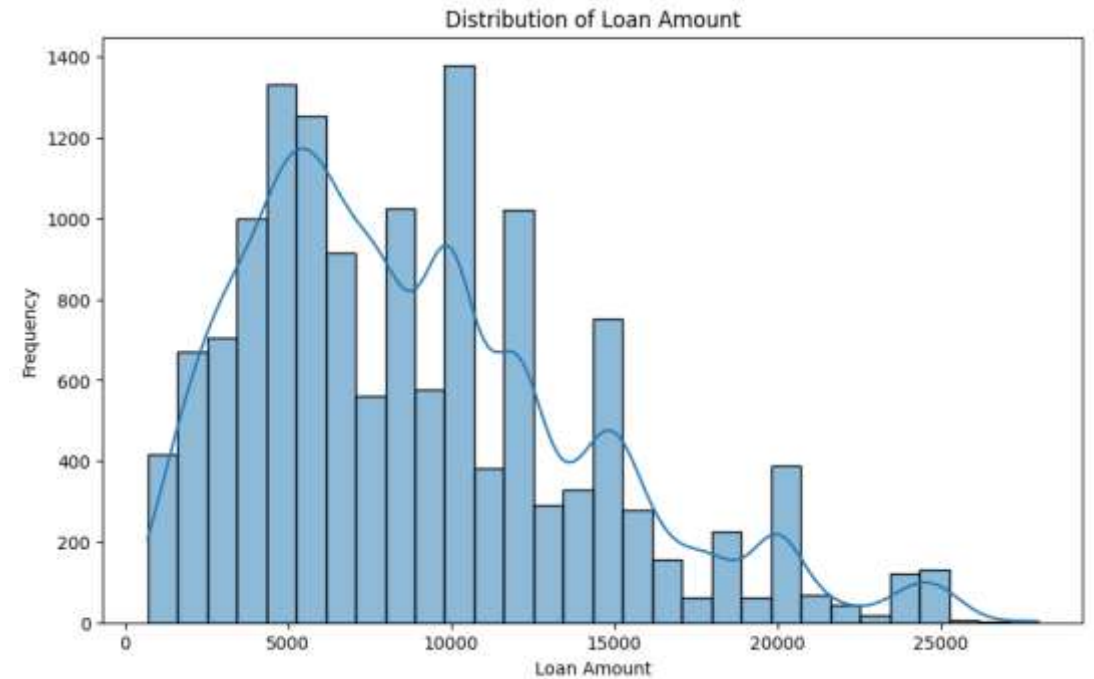
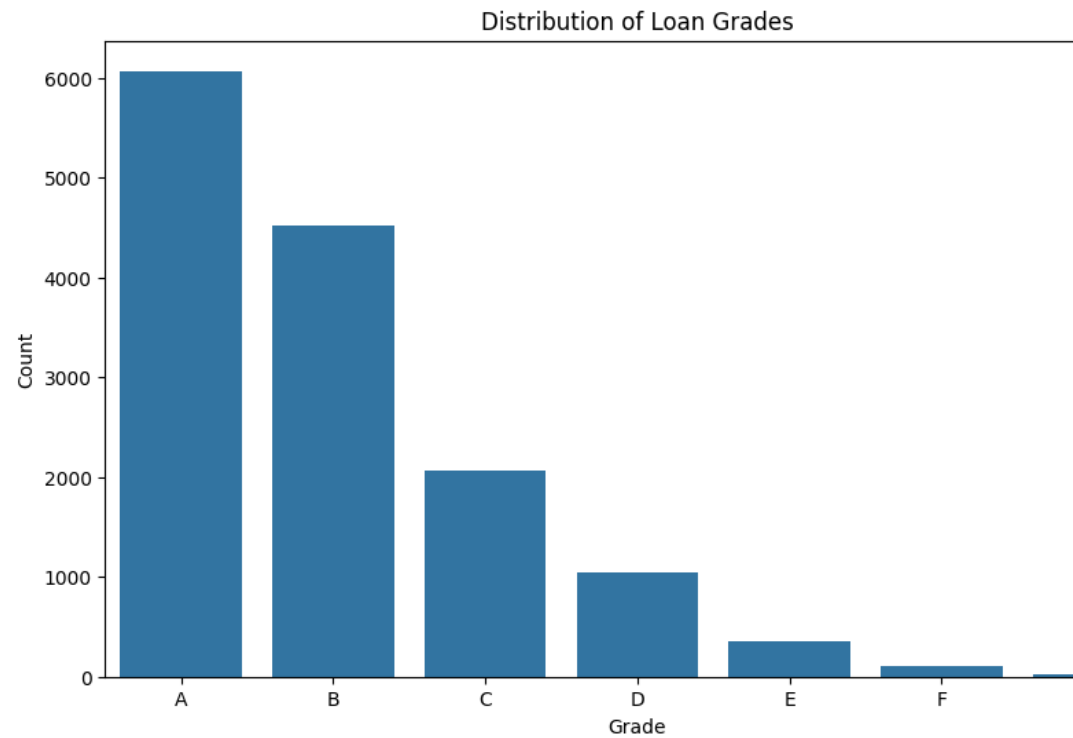
- This project aims to understand the driving factors behind loan defaults using Exploratory Data Analysis (EDA) on the
- provided dataset. The objective is to identify patterns that indicate if a person is likely to default, which can be used for
- making informed decisions regarding loan approvals.

# Data Preparation

- Loaded the dataset and inspected its structure.
- Handled missing values and outliers.
- Cleaned the data to ensure accuracy in analysis.

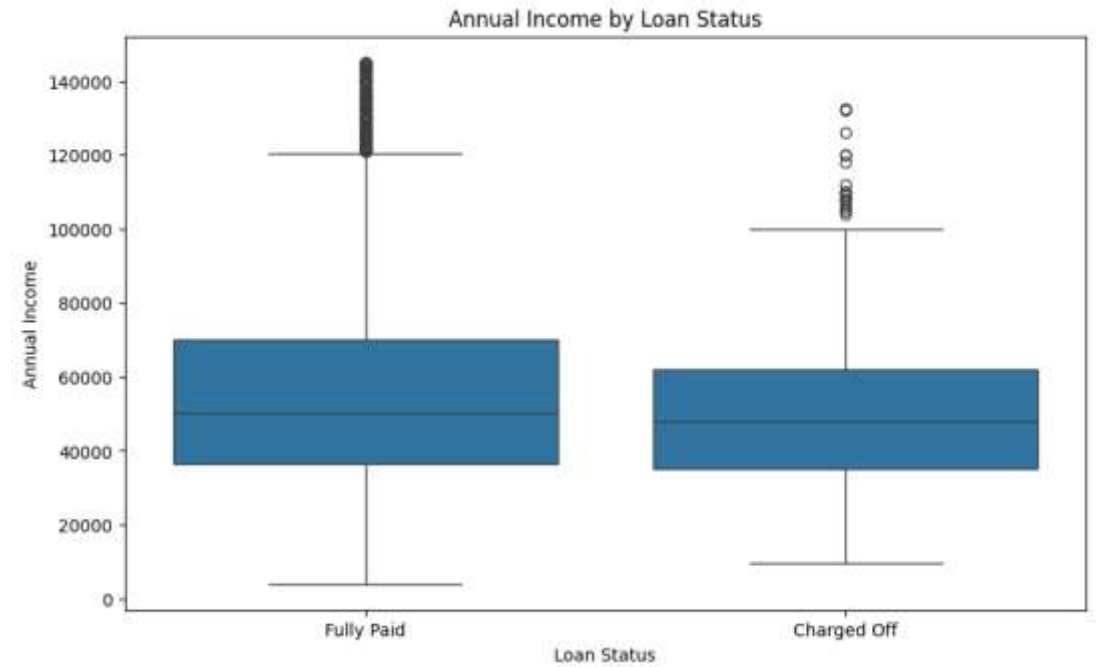
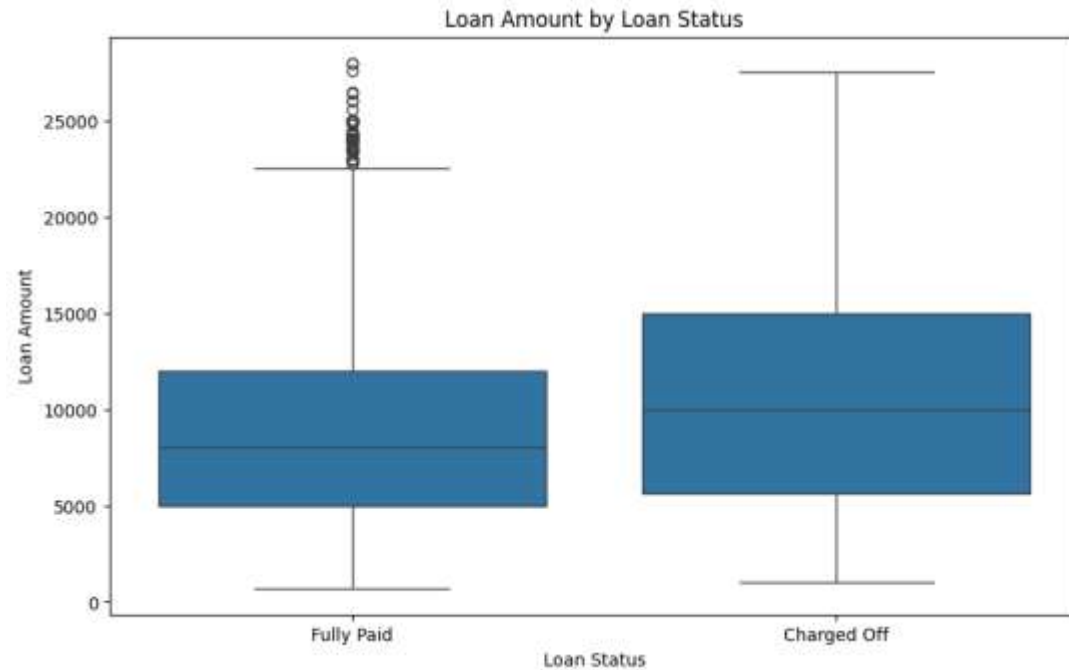
# Univariate Analysis

- Analyzed individual features to understand their distributions.
- the distribution of loan amounts and loan grades.



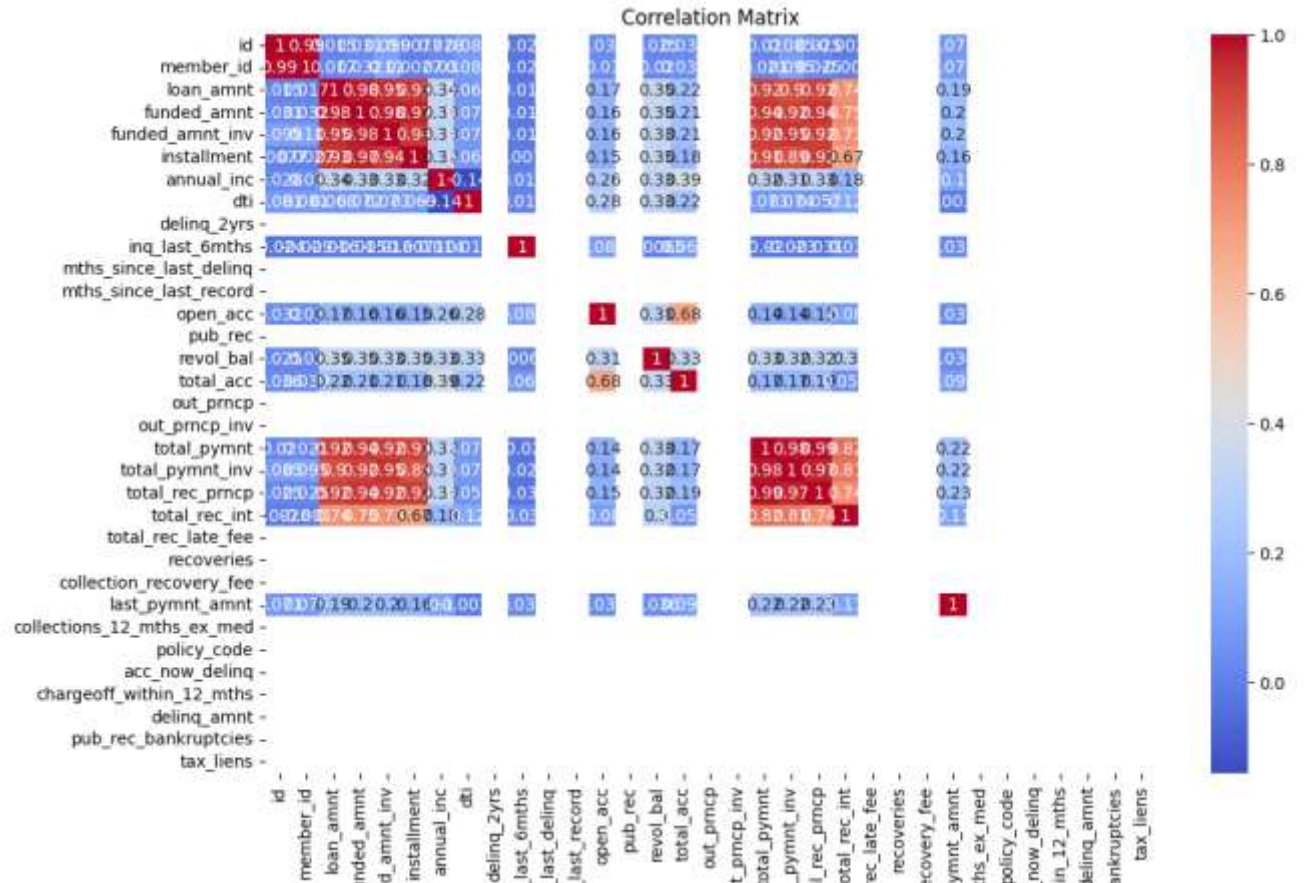
# Bivariate Analysis

- Studied the relationship between loan amounts and loan status.
- Analyzed the effect of annual income on loan status.



# Multivariate Analysis

- Used a correlation matrix to identify relationships between multiple features.



# Key Findings

- High loan amounts and low annual incomes are associated with higher default rates.
- Certain loan purposes have higher default rates.
- Employment length and grade show significant patterns in default rates.