Lending Club Case Study

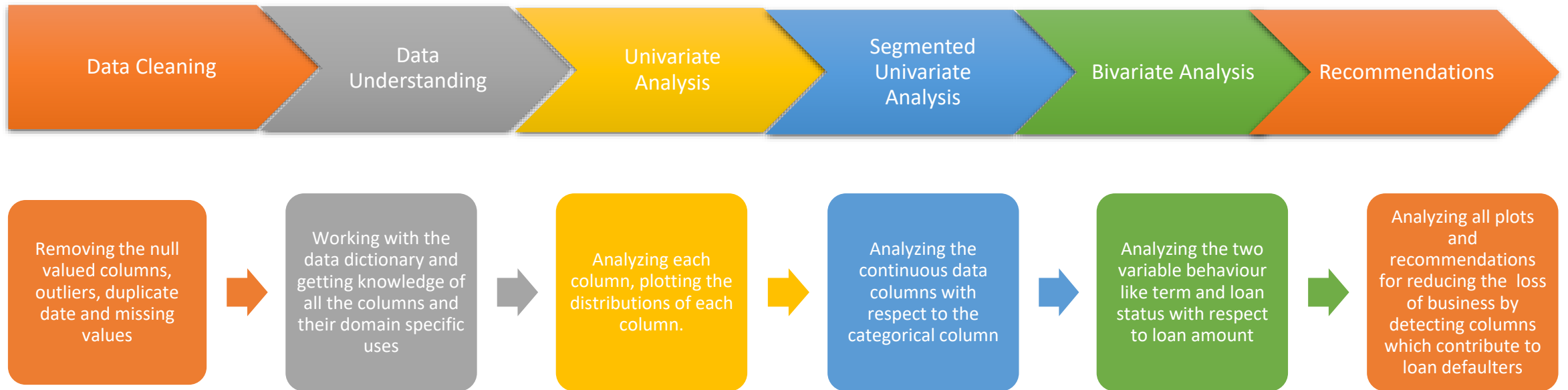Group Members

Sayan Mondal

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Case Study Objectives

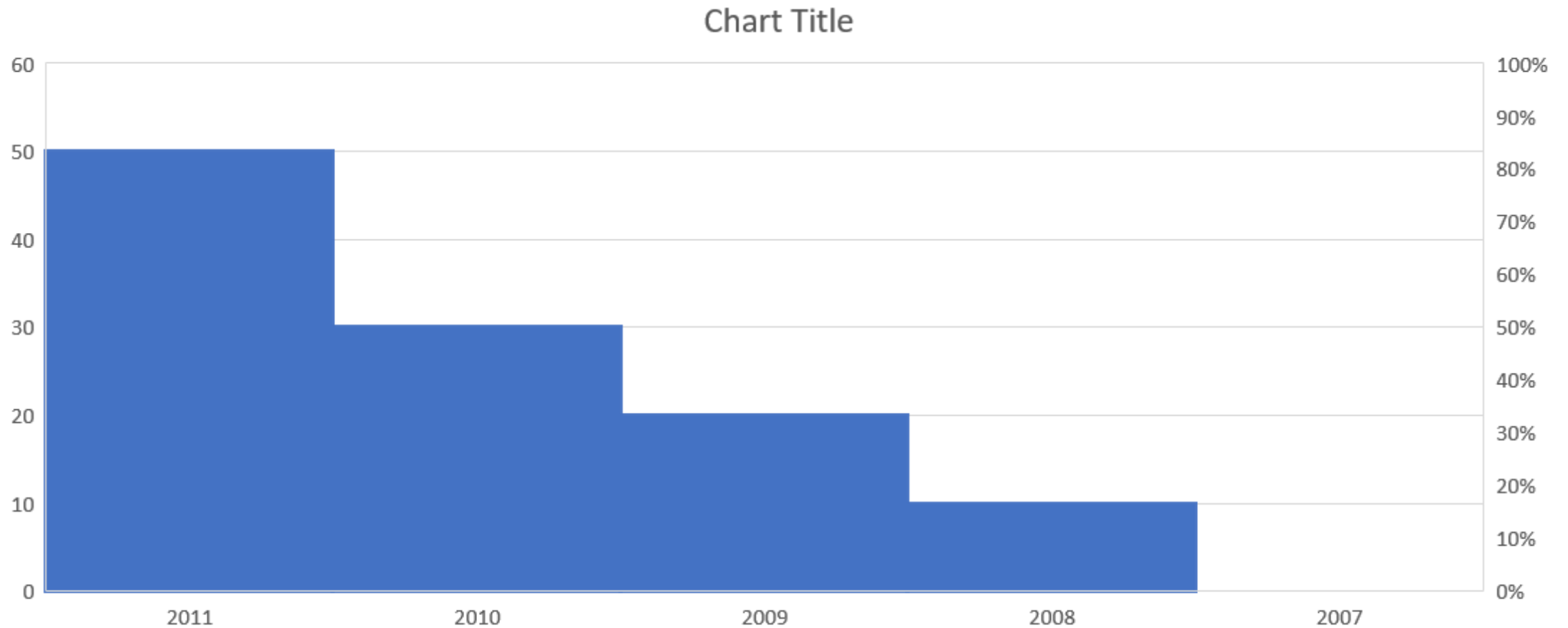Identification of loan applicant pattern that tend to 'Default' paying back

Understand the 'driving factor' behind loan default phenomena

By using the information on the past loan applicants, find whether they defaulted or not

Problem Solving Methodology

Data Cleaning	Data Understanding	Univariate Analysis	Segmented Univariate Analysis	Bivariate Analysis	Recommendations

Removing the null valued columns, outliers, duplicate date and missing values	Working with the data dictionary and getting knowledge of all the columns and their domain specific uses	Analyzing each column, plotting the distributions of each column.	Analyzing the continuous data columns with respect to the categorical column	Analyzing the two variable behaviour like term and loan status with respect to loan amount	Analyzing all plots and recommendations for reducing the loss of business by detecting columns which contribute to loan defaulters

Analysis - Yearly

Chart Title

- Lending Club has really expanded year by year, the number of loan issued are doubled every year.

Analysis - Monthly

Chart Title
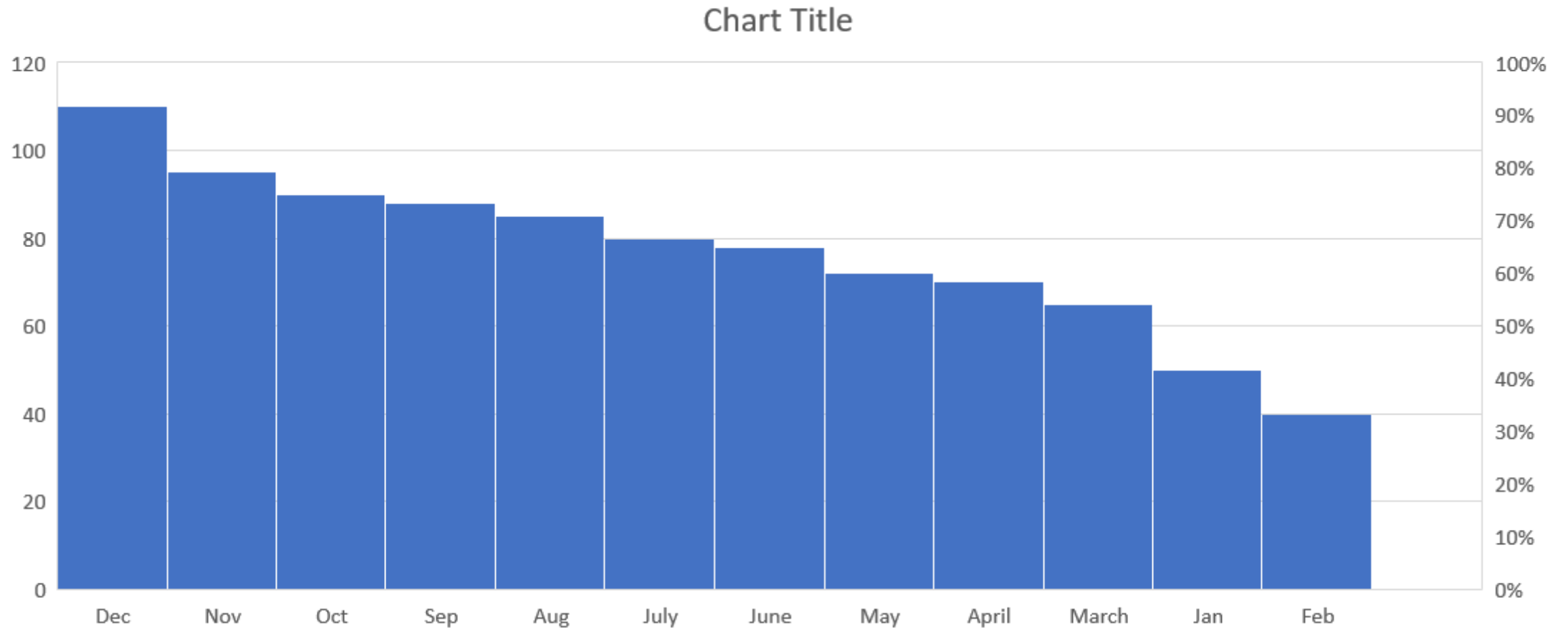
The issued month of loans is increasing from January to December. In the final quarter of year there are more loans issued, this could be because of vacation and Christmas.

Loan Status Analysis
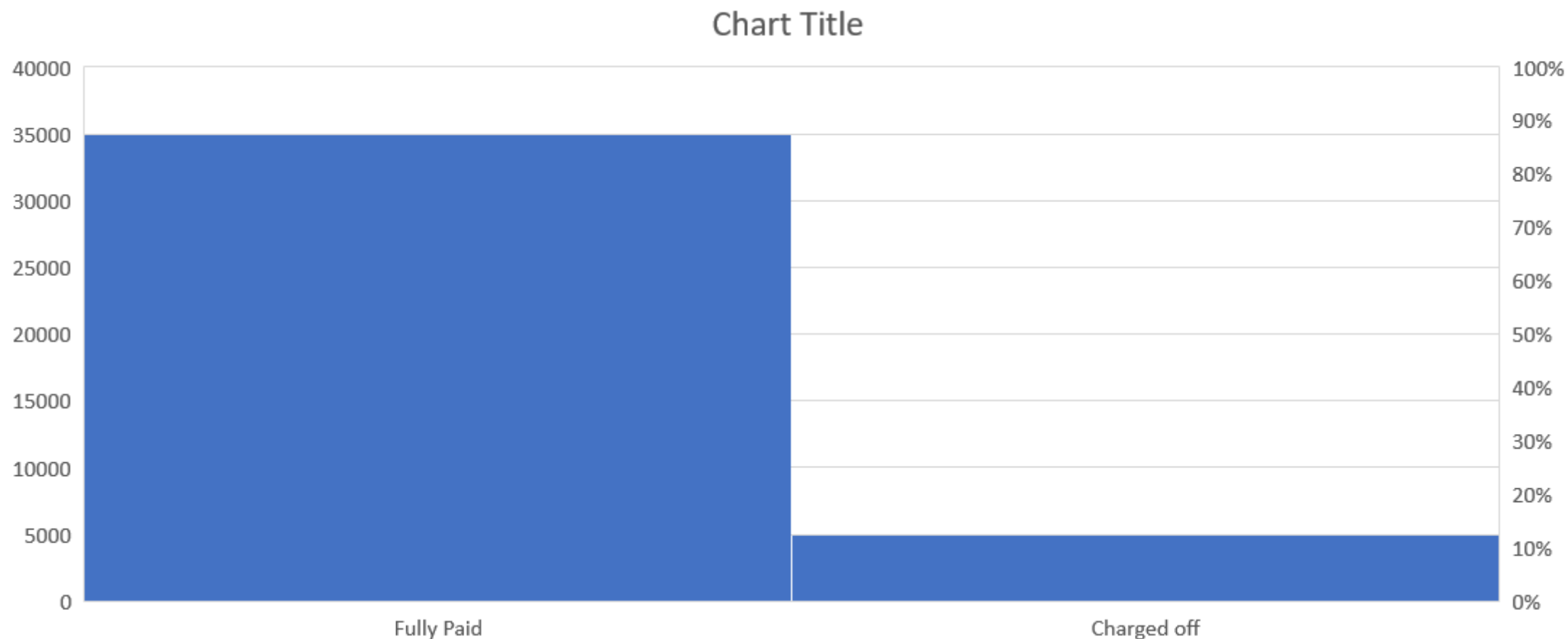
Observations:

1) Most of the loans are fully paid.
2) 14% of loan are having status as defaulters.
3) The loan has been increasing exponentially each year

- Small business loans are defaulted more. Lending club should stop/reduce issuing the loans to them.
- Loans having higher interest rate have more defaulters. Check the background of applicant thoroughly if interest loans are higher.
- Lending club should reduce the high interest loans for 60 months tenure, they are prone to more default.
- Extra scrutiny must be done for specific states were the defaulters percentage is higher.