Case Study Objectives

Identification of Loan Applicant traits that tend to 'default' or charged off

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Understand the 'Driving Factors' or 'Driver Variables' behind Loan Default phenomena

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Lending Club may utilize this knowledge for its loan portfolio and risk assessment of new loan applicants
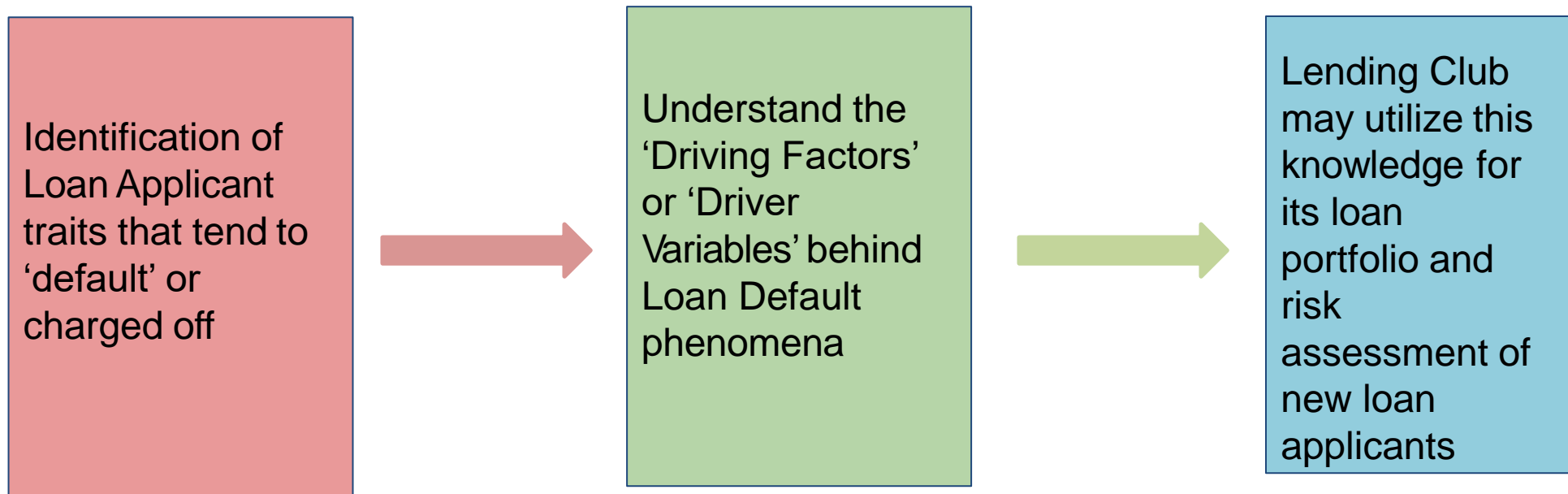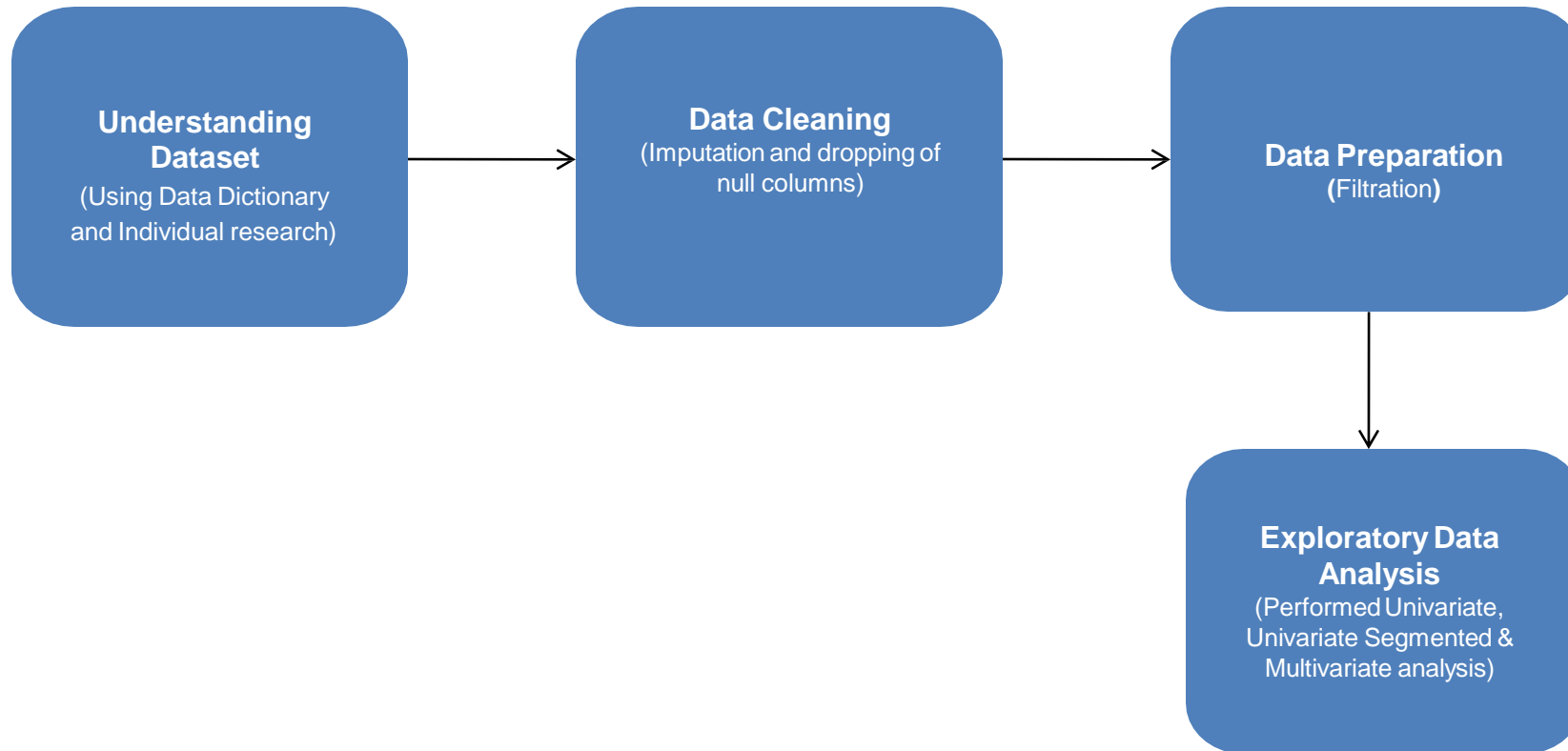
Problem solving methodology

Data Cleaning Steps

- **Delete columns**: Drop columns with null values

- **Remove outliers**: Remove high and low values that would affect the results of analysis.

- **Missing values:** Treat missing values with appropriate approach i.e. mean for numeric values or mode for categorical values.

- **Duplicate data:** Remove identical rows, remove rows where some columns are identical.

Analysis

Defaulting could happen in below scenarios:

- For B grade
- when house ownership would be rent
- For terms of 36 months
- For income in range 31201 - 58402
- For interest rate between 15%-20%
- For verification status as not verified
- when number of enquiries in last 6 months is 0
- For loan amount between 5k to 10k
- When the purpose is 'debt_consolidation'.
- Applicants have home ownership MORTGAGE and took loan of amount in 12k-15k.
- Applied interest rate is 17.5 for loan amount 30-35k.
- Interest rate applied 25%-30% and income is 80k to 1 lac.
- Loan taken for home improvement and income between 80k to 1 lac.