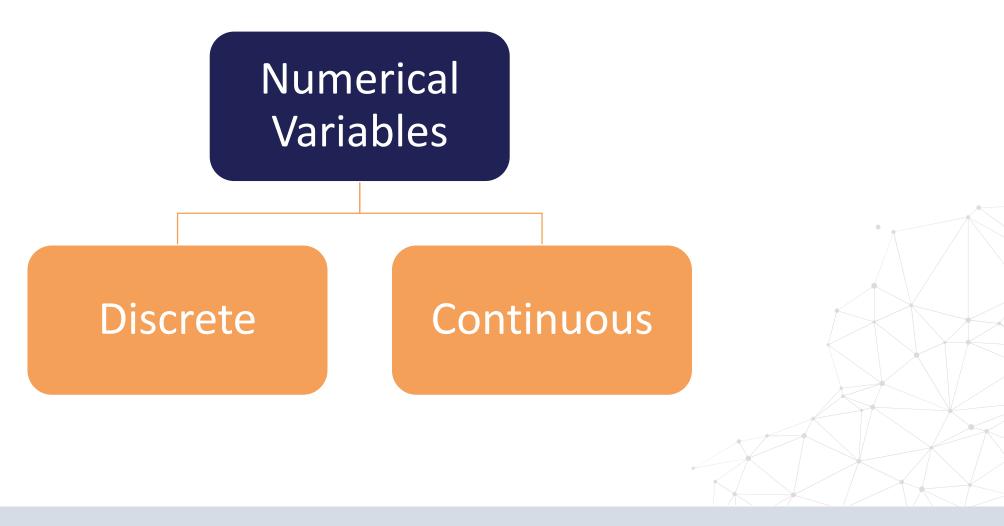


# Variable Types





#### Discrete Variables

A variable which values are whole numbers (counts) is called discrete. Examples:

- Number of items bought by a customer in a supermarket (10, 50, ...)
- Number of active bank accounts of a borrower (1, 4, 7, ...)
- Number of pets in the family
- Number of children in the family



#### **Continuous Variables**

A variable that may contain any value within some range is called continuous. Examples:

- Amount paid by a customer in a supermarket (\$32.50, \$12, \$5.20, ...)
- House price (GBP 350,000, GBP 57000, GBP 1,000,000, ...)
- Time spent surfing a website (3.4 seconds, 5.10 seconds, ...)
- Total debt as percentage of total income in the last month (0.2, 0.001, 0, 0.75, ...)

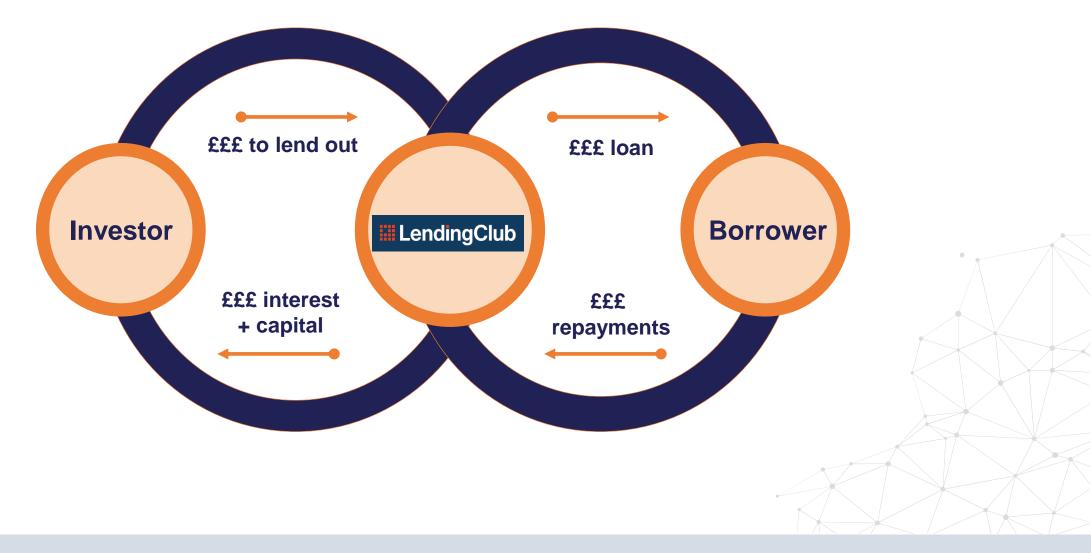


# NumericalVariables

Notebook demo



#### Peer to Peer Finance



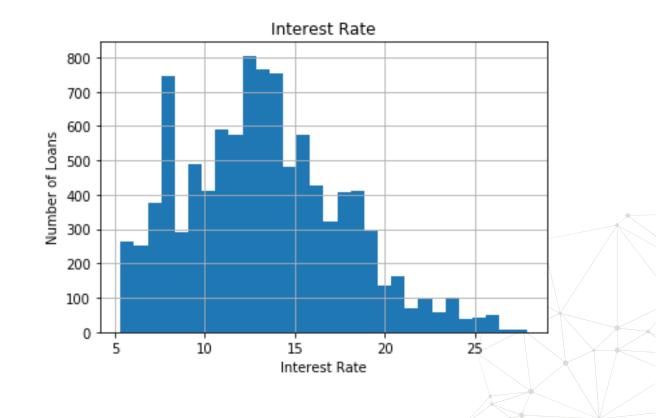
# Numerical Variable Examples

- Interest rate continuous
- Number of accounts opened in last 12 months discrete
- Loan defaulted binary



#### Interest Rate - Continuous

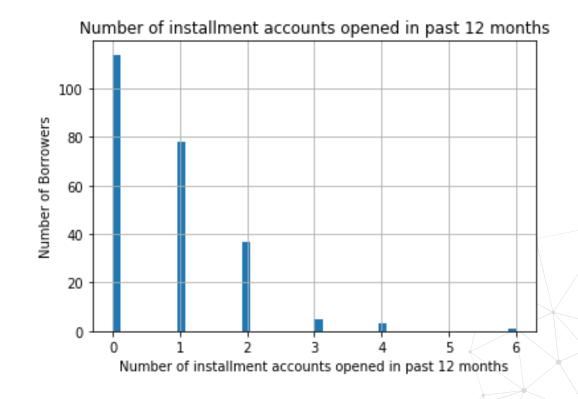
- Interest rate can take in principle any value within the range
- Example values: [15.8, 11.67, 9.25, 6.24, 19.52.]





## Number Opened Accounts - Discrete

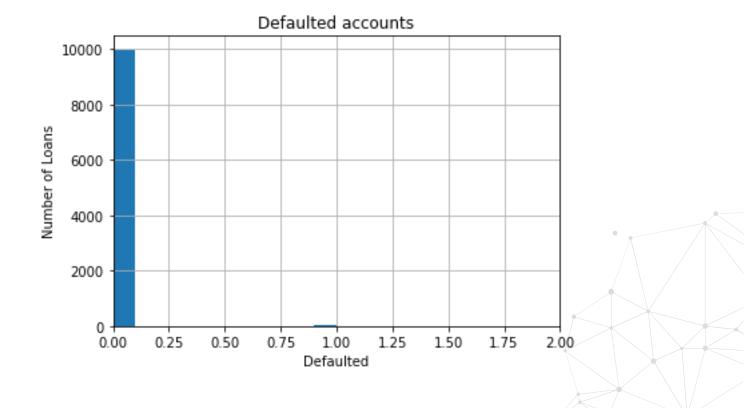
- Only discrete numbers
  - Customer can have 1 account but not 1.5 accounts
- Example values: [4, 1, 6, 2, 0, 5]





# Loan Defaulted-Binary

- Takes 1 of 2 possible values
- Example values: [1, 0] or [Defaulted, Non-Defaulted]





## Accompanying Jupyter Notebook



 Read the accompanying Jupyter Notebook







# THANK YOU

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