UPGRAD Assignment

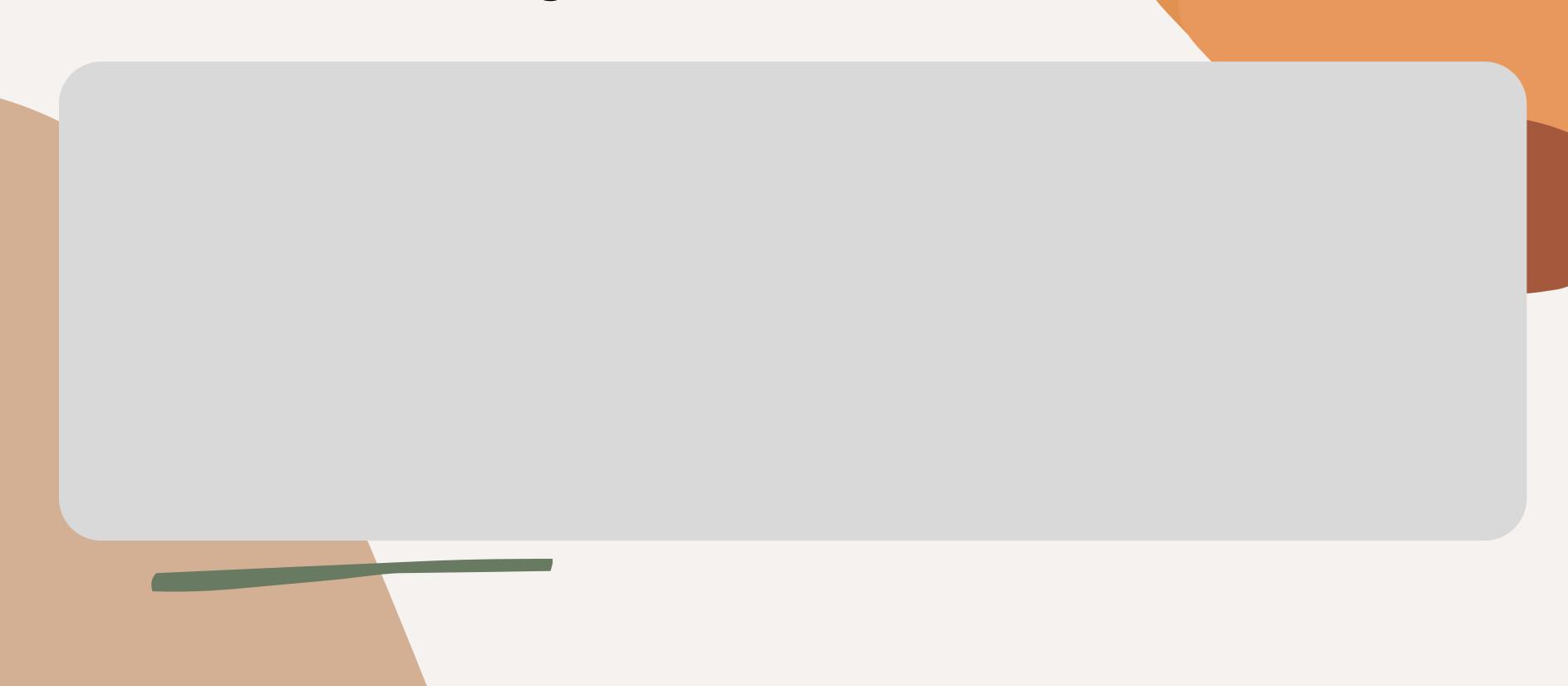
Background

The largest peer-to-peer marketplace that connects lenders and borrowers is called Lending Club.

The online application process for borrowers results in the assignment of an internal score. Both the decision to lend and the terms of the loan, such as the interest rate, monthly payment, and tenure, are made by the lender.

Credit card loans, debt consolidation loans, home loans, auto loans, etc. are a few prominent items.

Business Objective



Types of variables

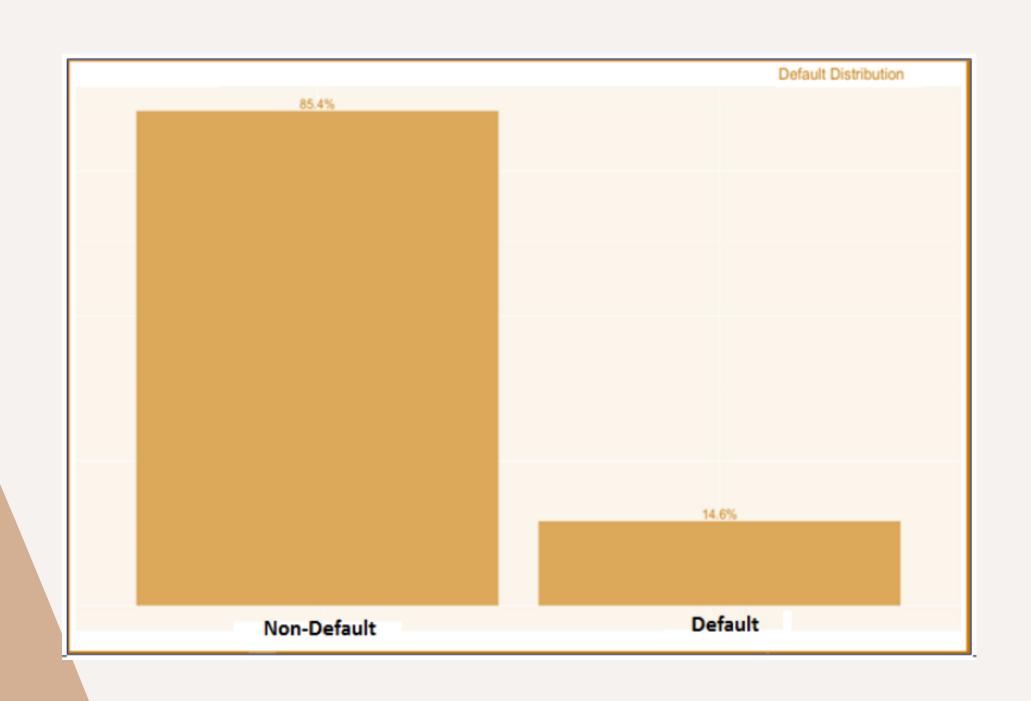
- Customer (applicant) demographic
- Loan related information & characteristics
- Customer behaviour (if the loan is granted)

Customer's Demographics
Employement Length
Employement title
Annual Income
Zip Code
Description

Lean Information 9 Characteristics
Loan Information & Characteristics
Loan Amount
Funded Amount
Funded Amount Investment
Interest Rate
Loan Status
Laon Grade

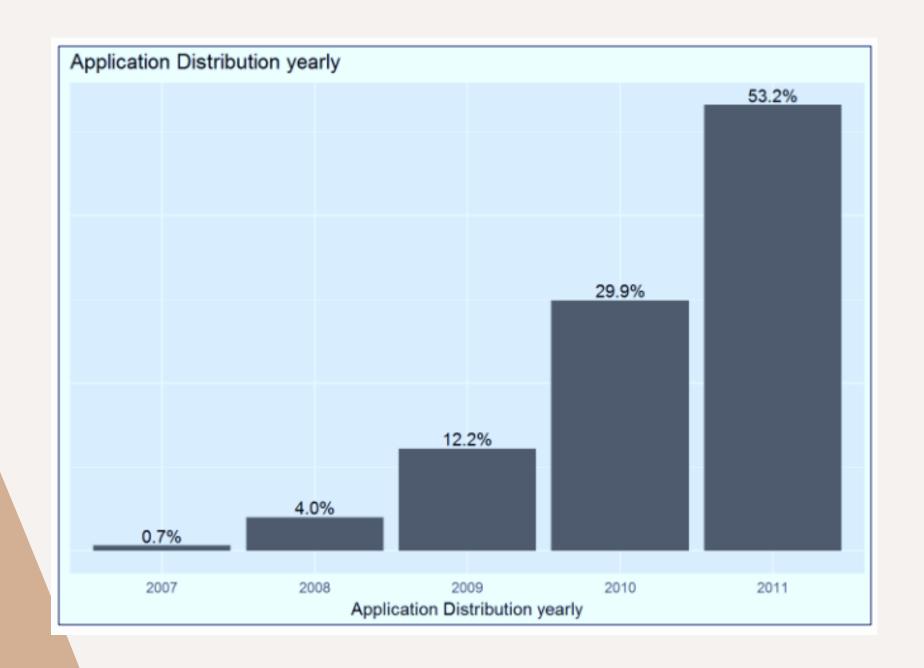
Customer Behaviour variables	
Delinquency year -2	
earliest credit line	
Revolving balance	
Recoveries	
Application type	
Loan purpose	

Data Understanding - Overall Default Rate is 14%



Time Frame of the Data – 2007-2011

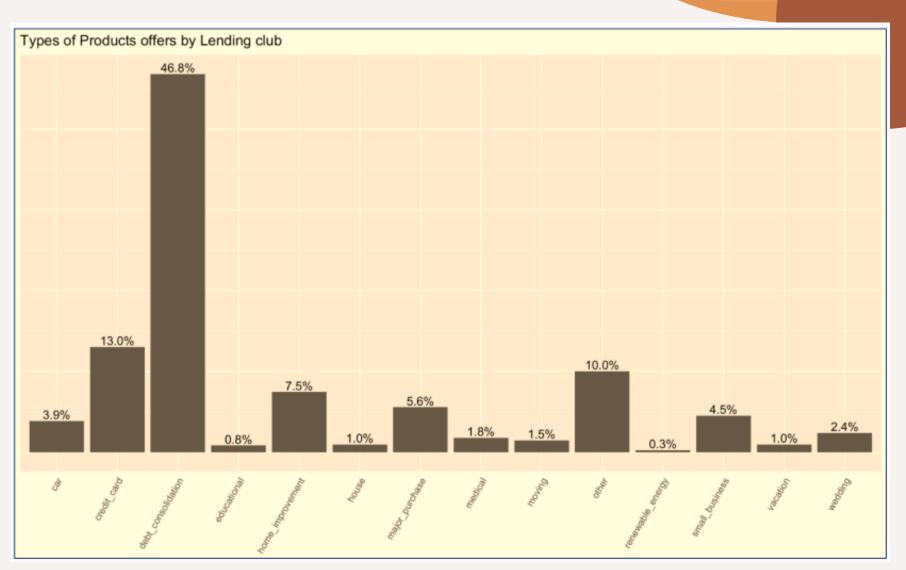
- 78% increment in applicants in 2011 compared to 2010
- 145% increment in applicants in 2010 compared to 2009



Loan Purpose Distribution:

Debt Consolidation Loan is the most popular

- 46.8% debt consolidation loans
- 13% credit card loans
- 7.5% home improvement loans
- 5.6% major purchase loans



Default Rates By Loan Purpose

• Small business: 27%

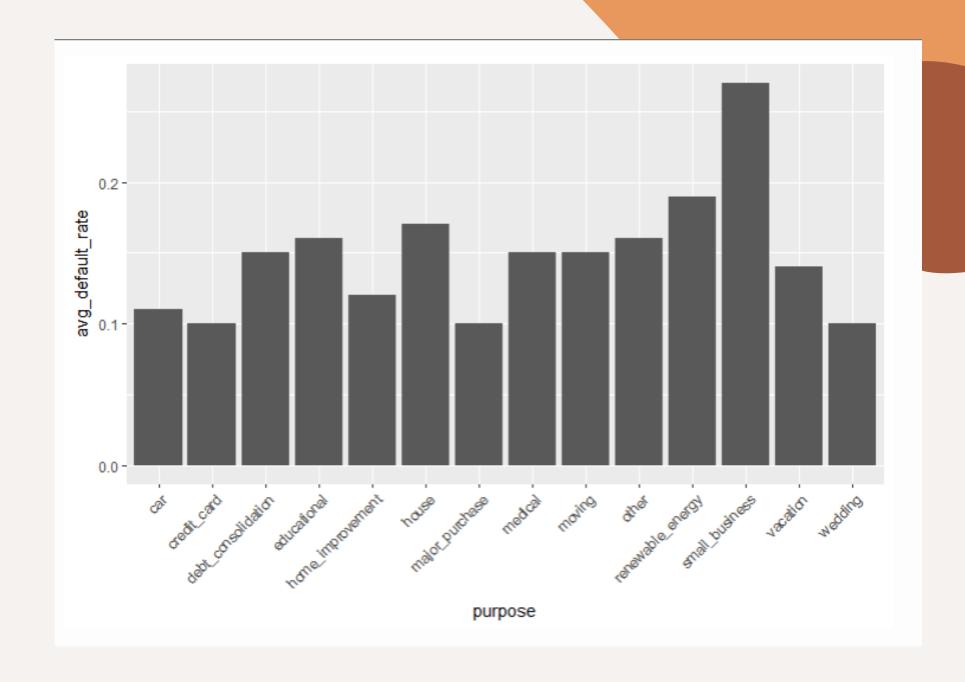
• House: 17%

• Educational: 16%

• Debt consolidation: 15%

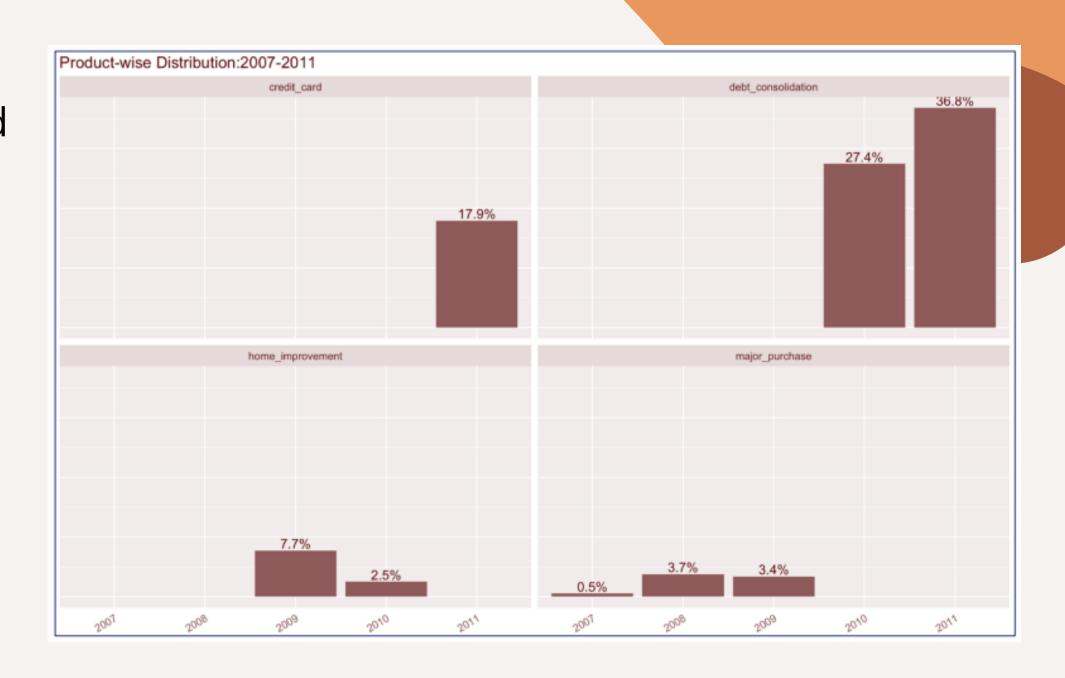
• Credit card: 10%

Major purchase: 10%



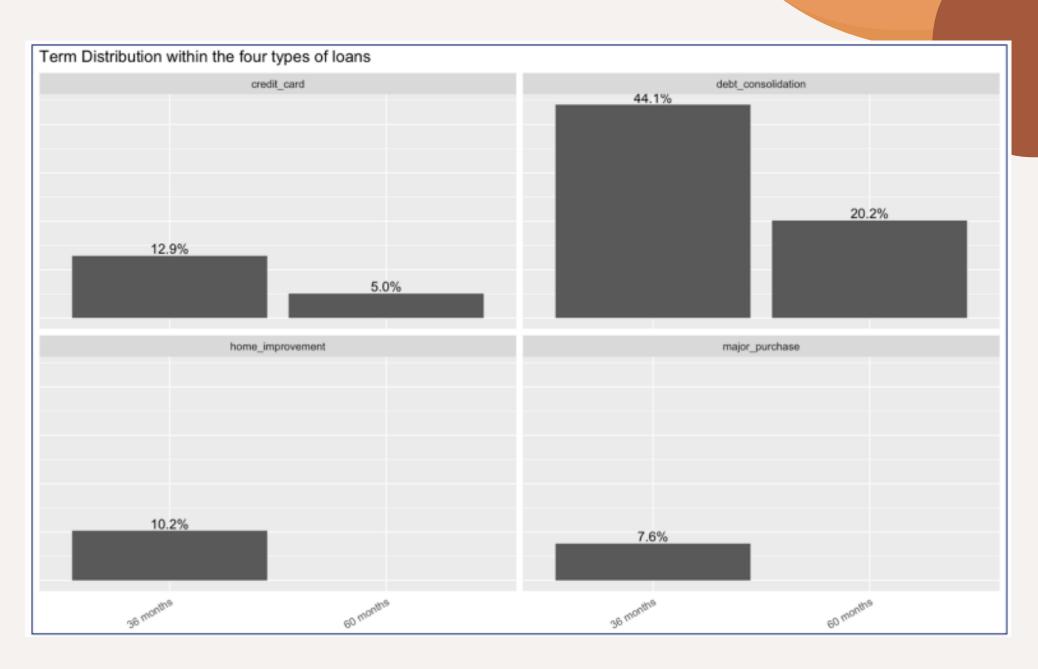
Top-4 Products over time: Credit Card, Debt Consolidation, Home Improvement & Major purchase

- In 2007 & 2008, Lending Club focused on major purchase loans
- In 2009, they started lending money for home improvement purpose also
- In 2010, they started lending loan for debt consolidation
- In 2011, credit card loans were introduced



Term Distribution in Top-4 products

• Lending club has given out 36 month term period loan for major purpose and home improvement.



Grade Distribution in top-4 products

