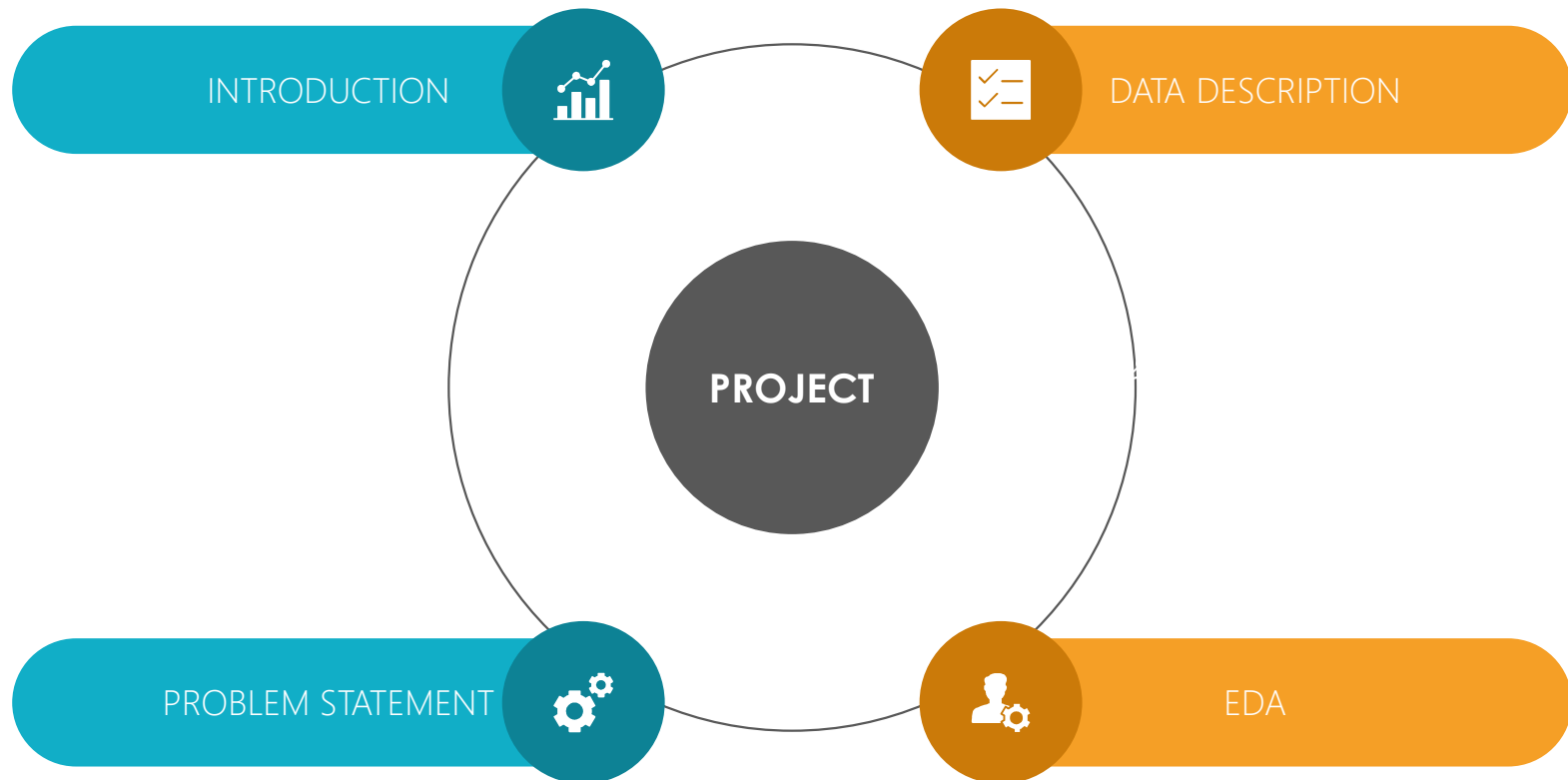




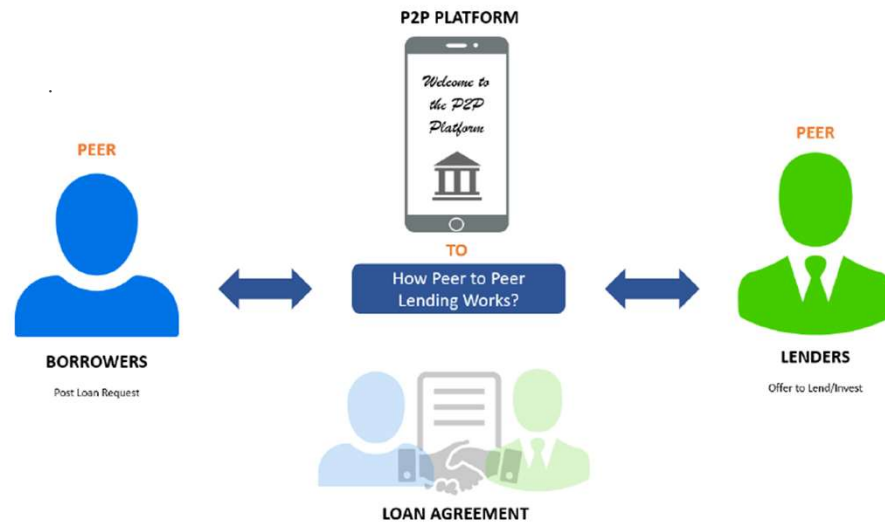
Lending Club Project

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. Lending Club Project .



Introduction



A consumer finance company needs to make decisions about loan approvals based on an applicant's profile to manage two types of risks - loss of business if a likely loan repayer is not approved and financial loss if a likely loan defaulter is approved. The company wants to use exploratory data analysis (EDA) to identify patterns in consumer and loan attributes that influence the tendency of default to make better decisions regarding loan approvals, loan amounts, and interest rates. The data provided contains information on past loan applicants and whether they defaulted.

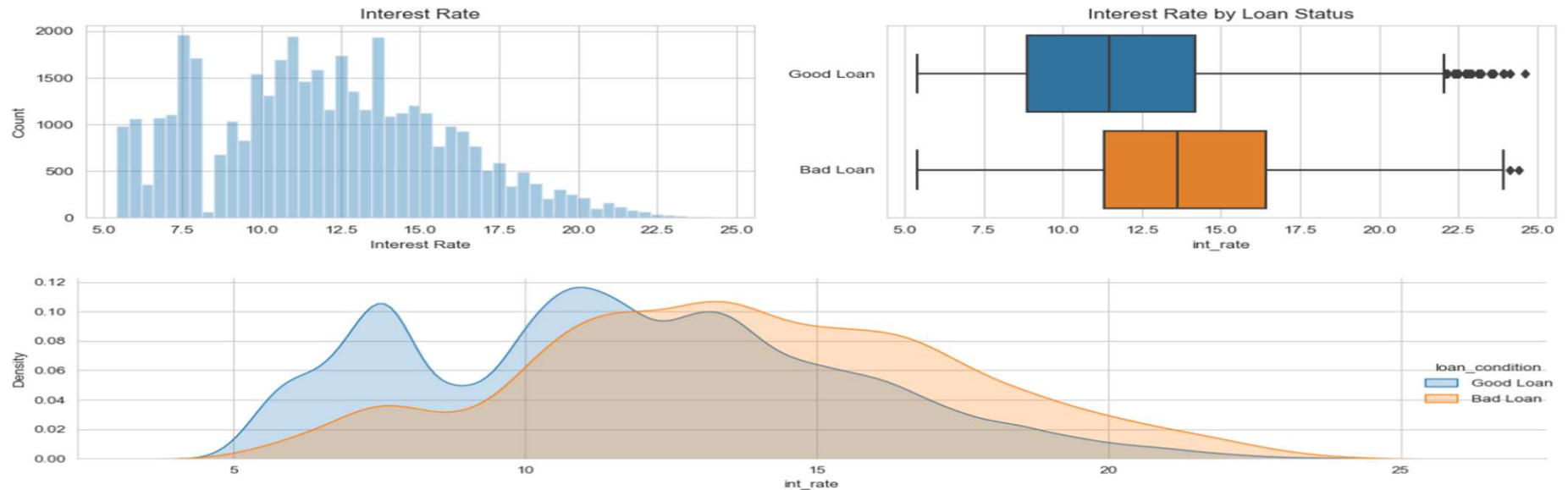
Problem Statement

The project is trying to identify the driving factors (or driver variables) behind loan default, i.e. the variables that are strong indicators of default, and utilise this knowledge for portfolio and risk assessment. By identifying risky loan applicants, the company can reduce such loans and cut down the amount of credit loss.

Data Description

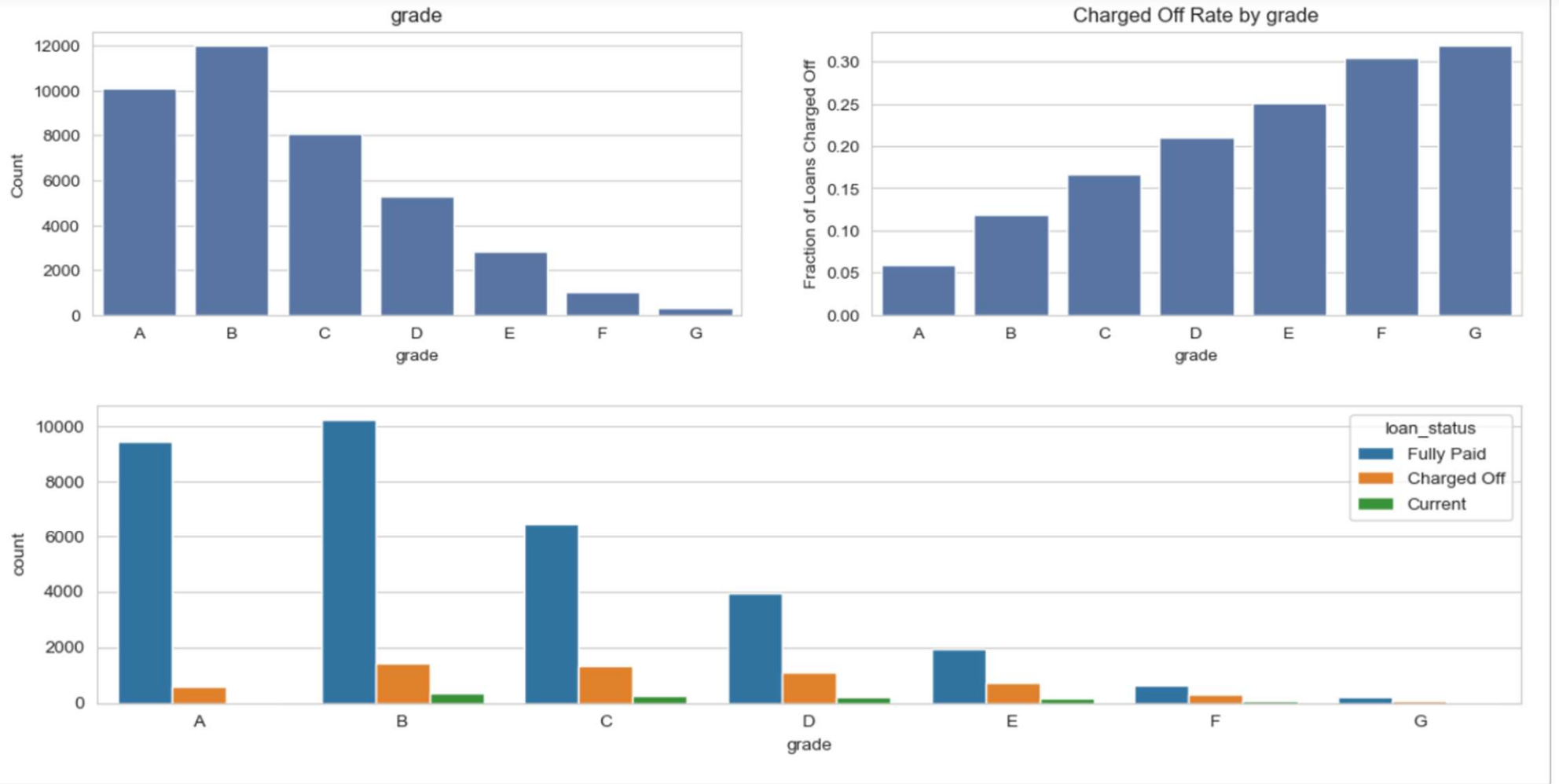
LoanStatNew	Description
acc_now_delinq	The number of accounts on which the borrower is now delinquent.
acc_open_past_24mths	Number of trades opened in past 24 months.
addr_state	The state provided by the borrower in the loan application
all_util	Balance to credit limit on all trades
annual_inc	The self-reported annual income provided by the borrower during registration.
annual_inc_joint	The combined self-reported annual income provided by the co-borrowers during registration
application_type	Indicates whether the loan is an individual application or a joint application with two co-borrowers
avg_cur_bal	Average current balance of all accounts
bc_open_to_buy	Total open to buy on revolving bankcards.
bc_util	Ratio of total current balance to high credit/credit limit for all bankcard accounts.
chargeoff_within_12_mths	Number of charge-offs within 12 months
collection_recovery_fee	post charge off collection fee
collections_12_mths_ex_med	Number of collections in 12 months excluding medical collections
delinq_2yrs	The number of 30+ days past-due incidences of delinquency in the borrower's credit file for the past 2 years
delinq_amnt	The past-due amount owed for the accounts on which the borrower is now delinquent.
desc	Loan description provided by the borrower
dti	A ratio calculated using the borrower's total monthly debt payments on the total debt obligations, excluding mortgage and the requested LC loan, divided by the borrower's self-reported monthly income.
dti_joint	A ratio calculated using the co-borrowers' total monthly payments on the total debt obligations, excluding mortgages and the requested LC loan, divided by the co-borrowers' combined self-reported monthly income
earliest_cr_line	The month the borrower's earliest reported credit line was opened
emp_length	Employment length in years. Possible values are between 0 and 10 where 0 means less than one year and 10 means ten or more years.
emp_title	The job title supplied by the Borrower when applying for the loan.*
fico_range_high	The upper boundary range the borrower's FICO at loan origination belongs to.
fico_range_low	The lower boundary range the borrower's FICO at loan origination belongs to.
funded_amnt	The total amount committed to that loan at that point in time.
funded_amnt_inv	The total amount committed by investors for that loan at that point in time.
grade	LC assigned loan grade

Exploratory Data Analytics.

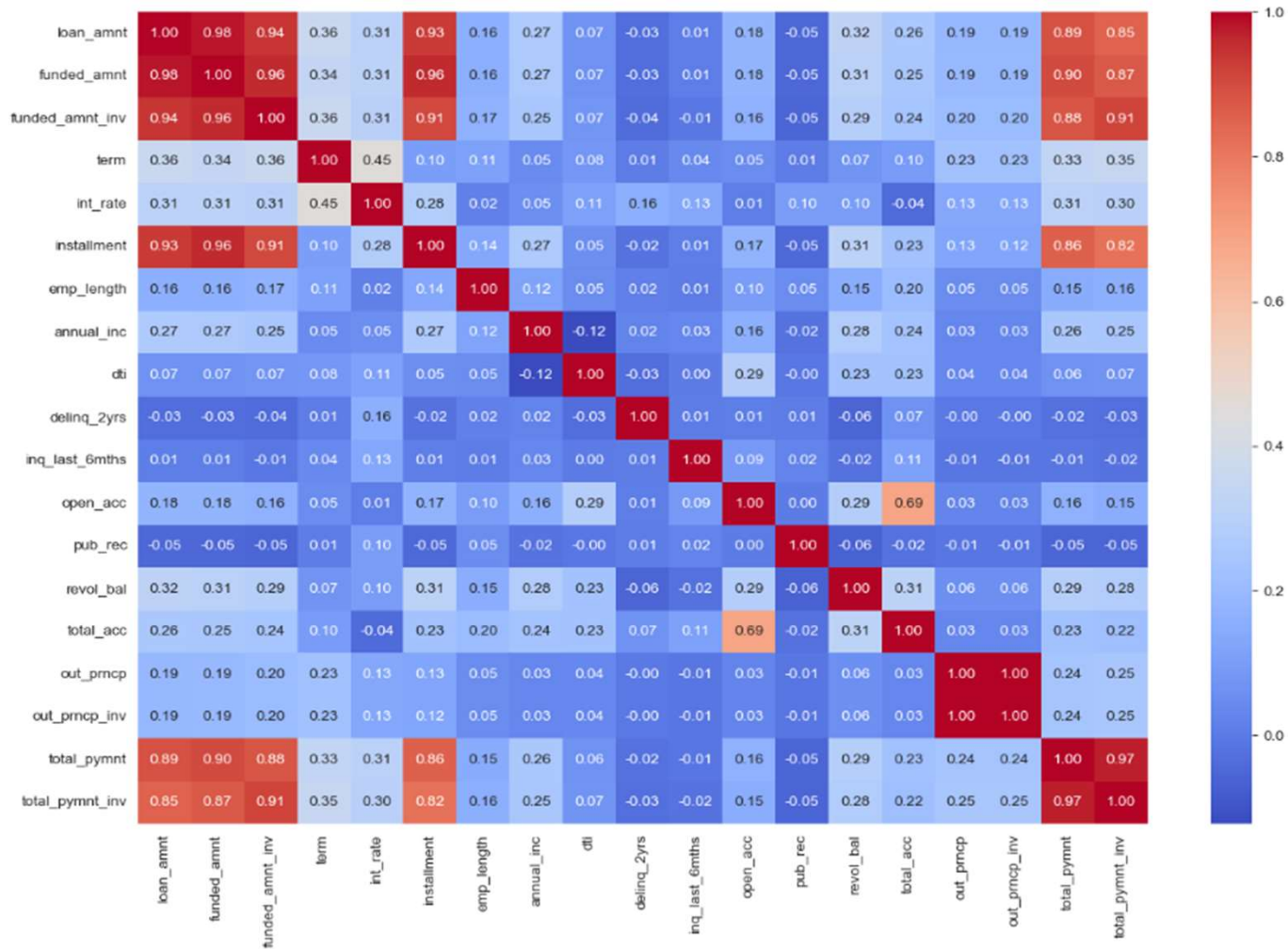


The project gives a solution how real business problems are solved using EDA and understand how data is used to minimize the risk of losing money while lending to customers.

Exploratory Data Analytics



Exploratory Data Analytics.





Thank You

24Slides