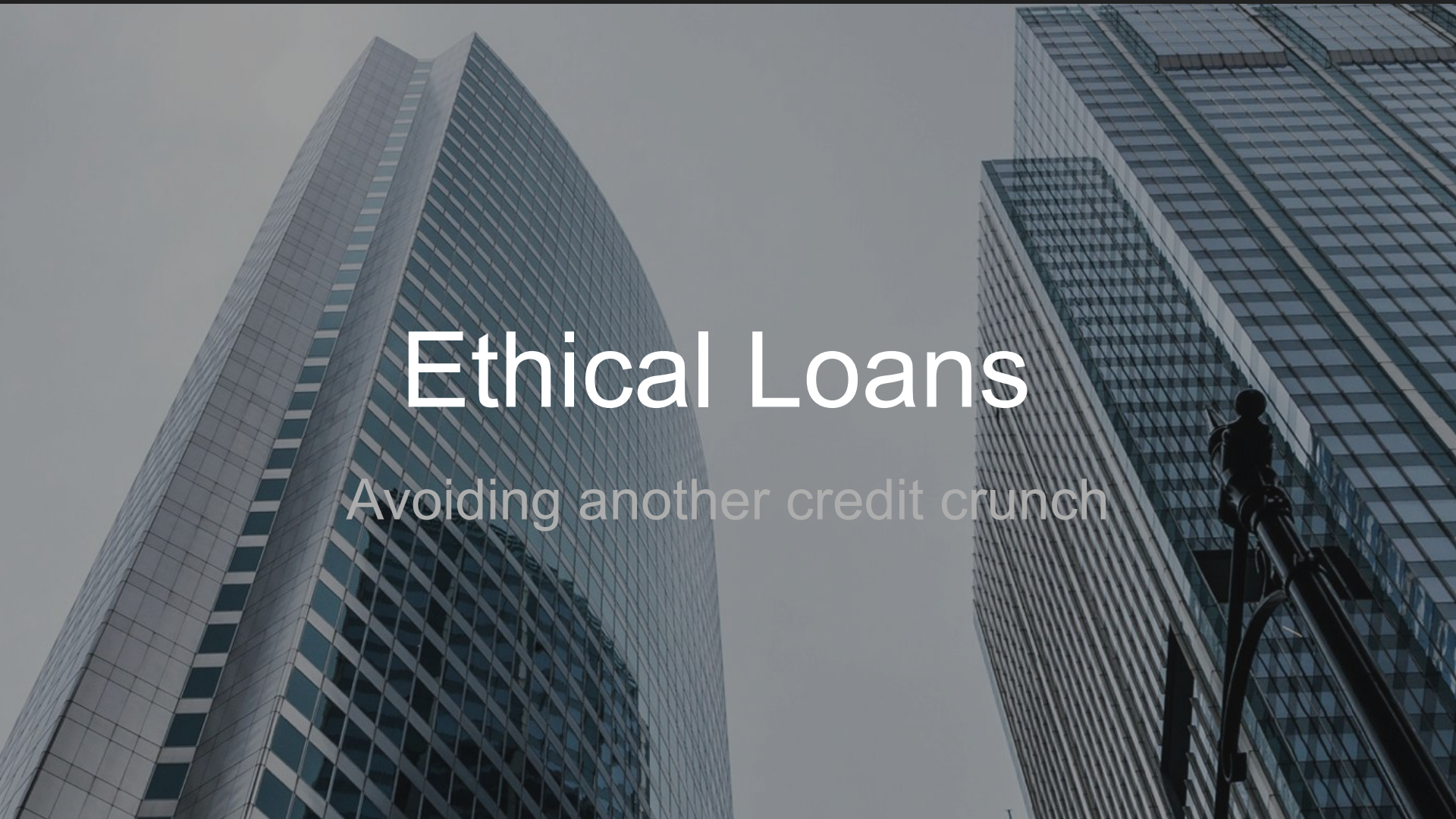


Ethical Loans

Avoiding another credit crunch

Problem Definition

Default loan costs on average $10,000

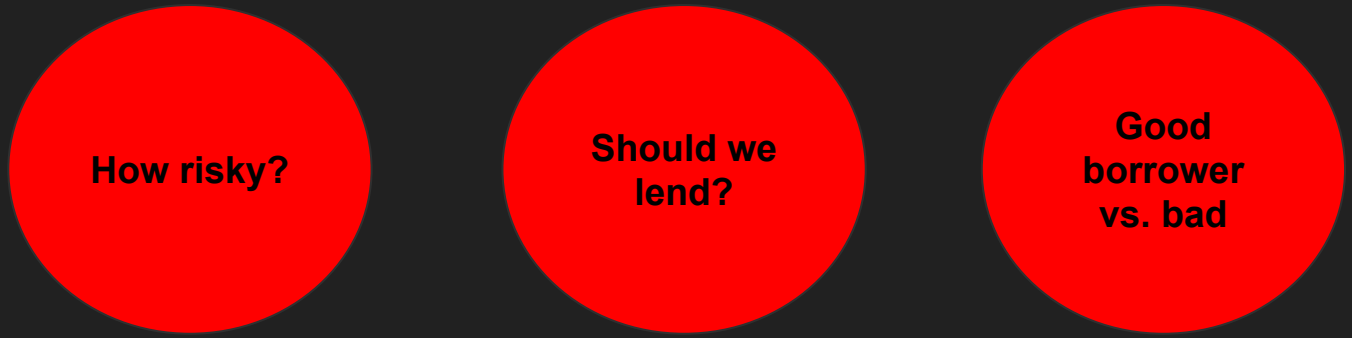
1 in 5 people phone the Samaritans

We can use data to make better decisions

Bank of England Statistics pages

1 in 5 calls to the Samaritans in the UK

Predicting Loan Repayment



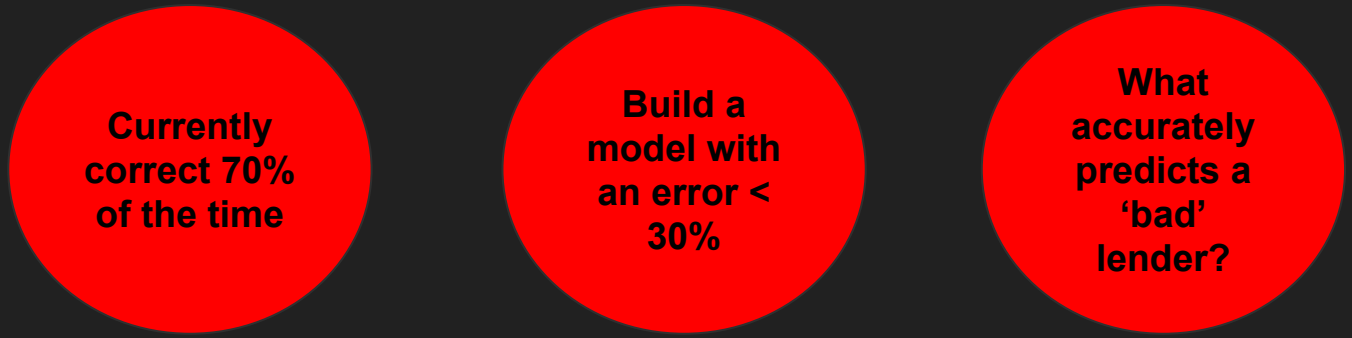
PREDICTING LOAN REPAYMENT

The critical question in the lending industry are :

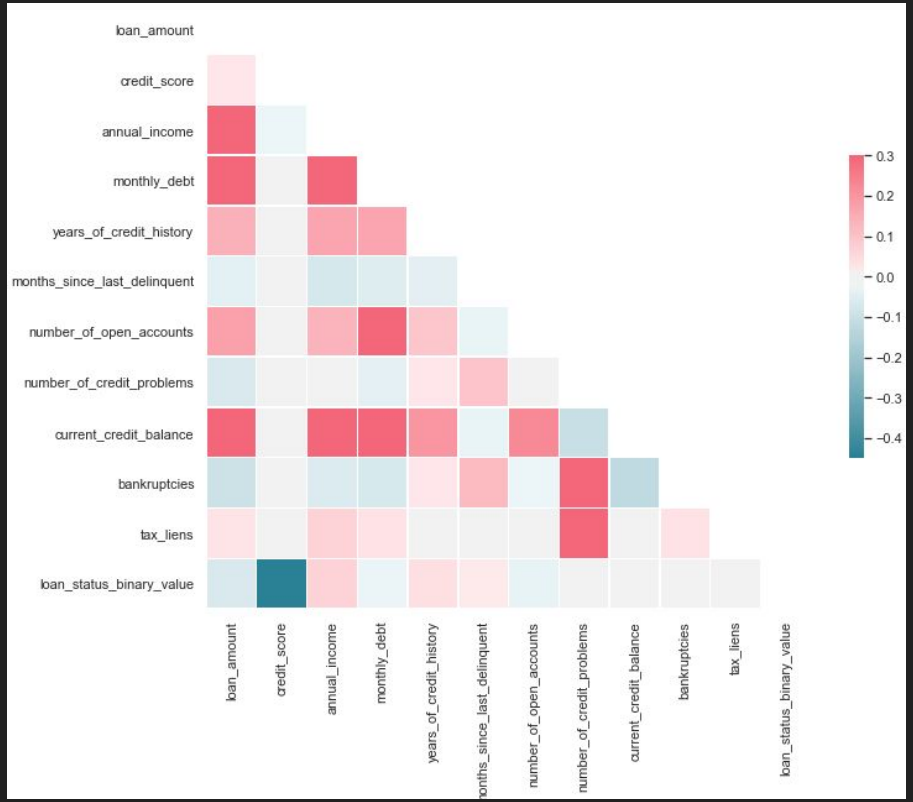
1. How Risky is a borrower ?
2. Given the borrowers risk, should banks lend money ?
3. How do we determine a good borrower and a bad one ?

Will try and answer the above questions and share with you the methods we used to help mitigate the issue of bad borrowers .

What does success look like?



Correlation Matrix

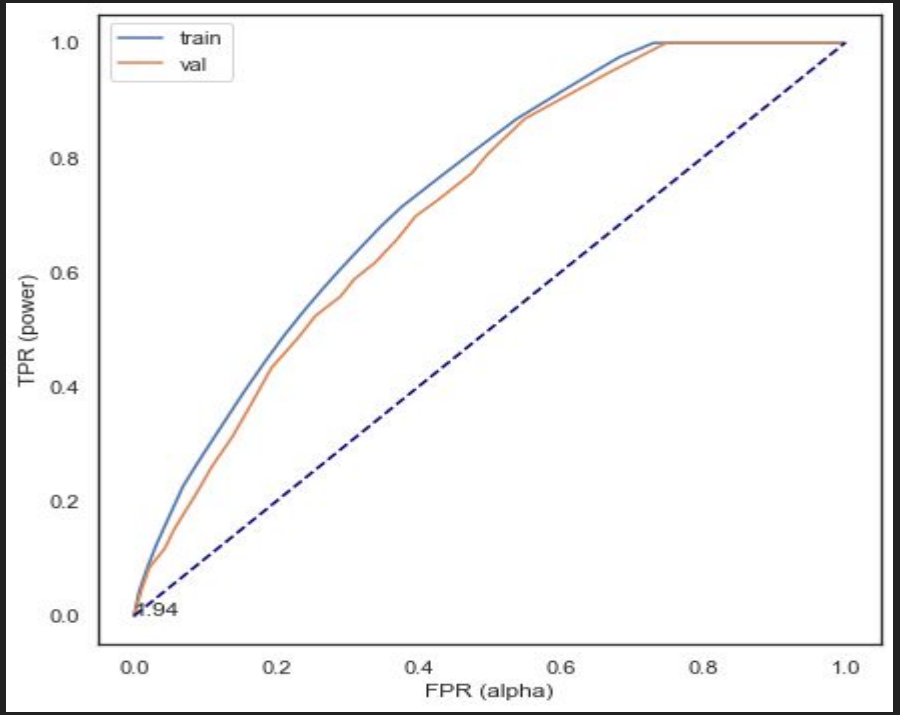


Correlation Matrix.

Looking at a correlation matrix of all numeric variables in the dataframe, we can see a strong correlation between credit_score and loan_status_binary_value which is to be expected. Clearly the processes currently being used are having some success and so building on this success will be challenging, but beneficial if it can be achieved.

Winning Model

Error rate < 25%



WINNING MODEL

Thanks for listening