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Rakamin Academy

CREDIT RISK MODELING

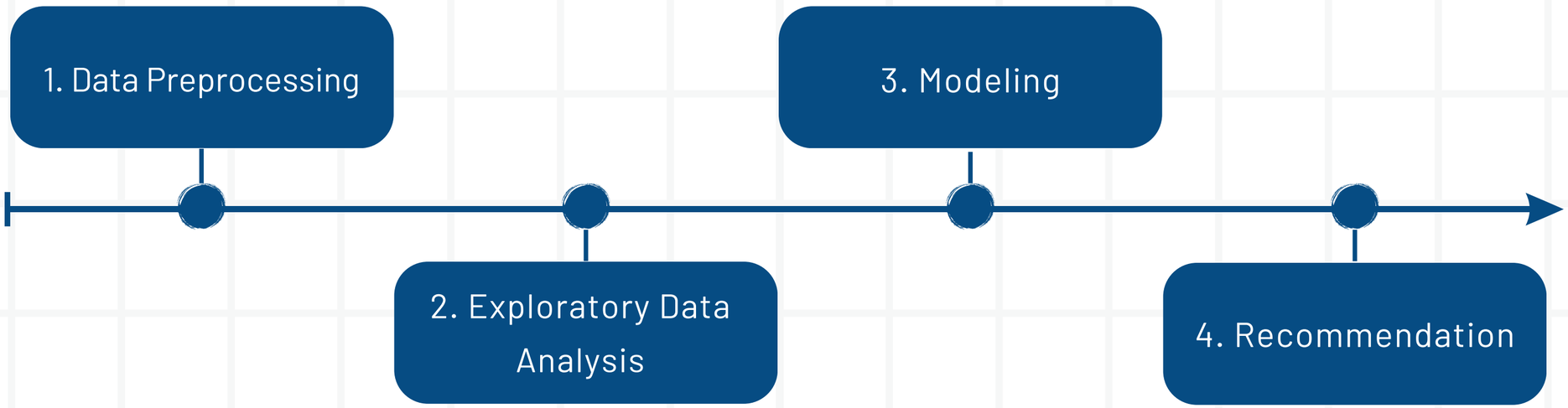
Presented by:
Shania Widianingrum Puspitasari

TABLE OF CONTENT

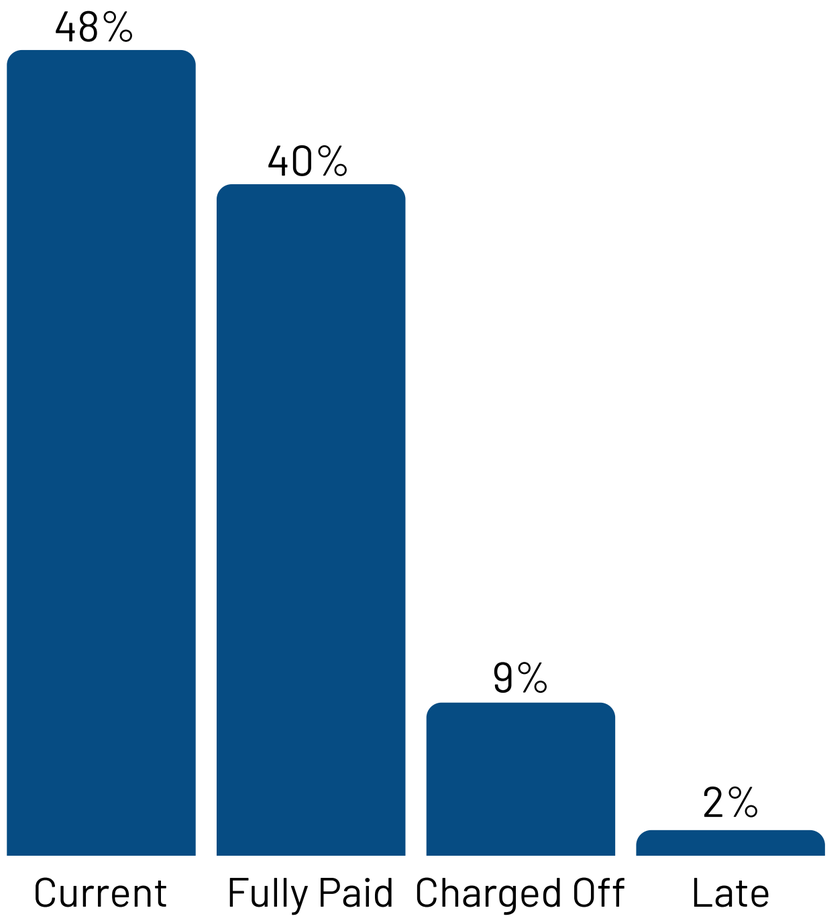
OBJECTIVE

Our main goal is to **create a machine learning model** that can **predict** whether users who will apply for credit can pay on time or will be late / problematic. As a data team, our objective is to **predict** an individual's ability to repay a loan/credit.

METHODOLOGY

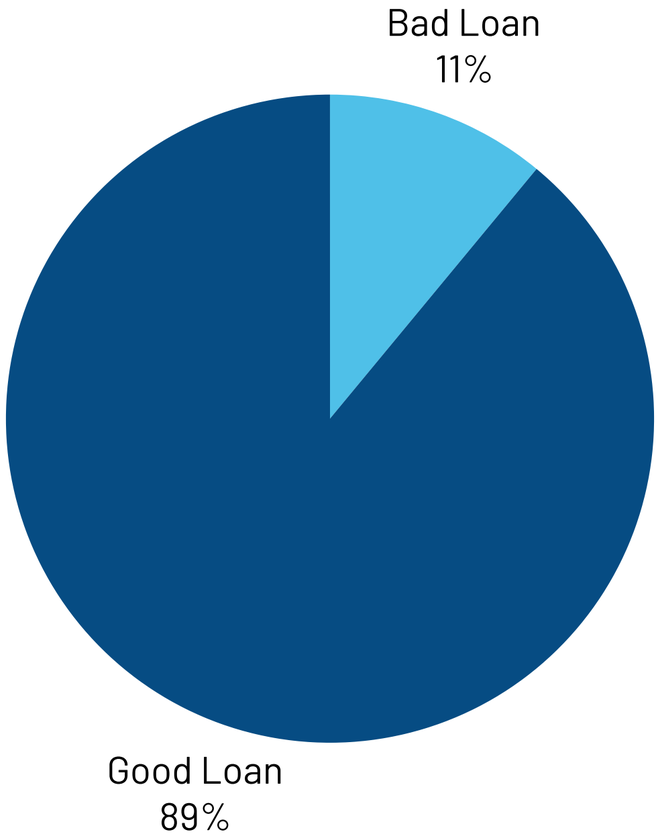


TARGET COLUMN DISTRIBUTION



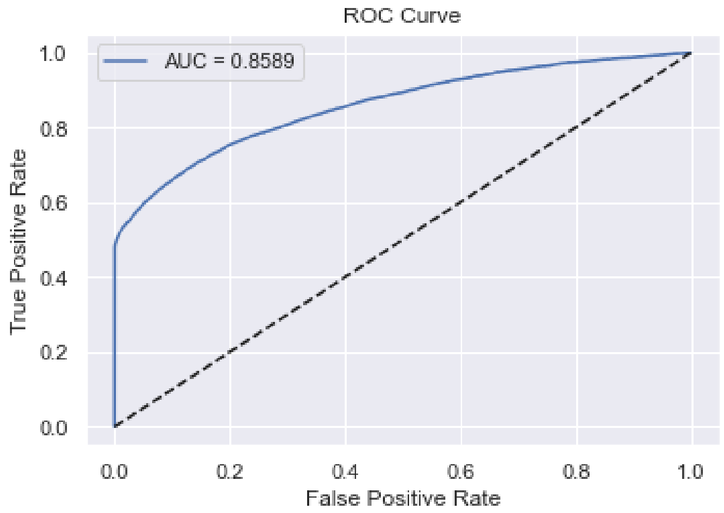
- **48%** of loan repayments are **current**
- **40%** of repayments are **fully paid**
- **9%** of repayments are **charged off**
- **2%** of repayments are **late**.

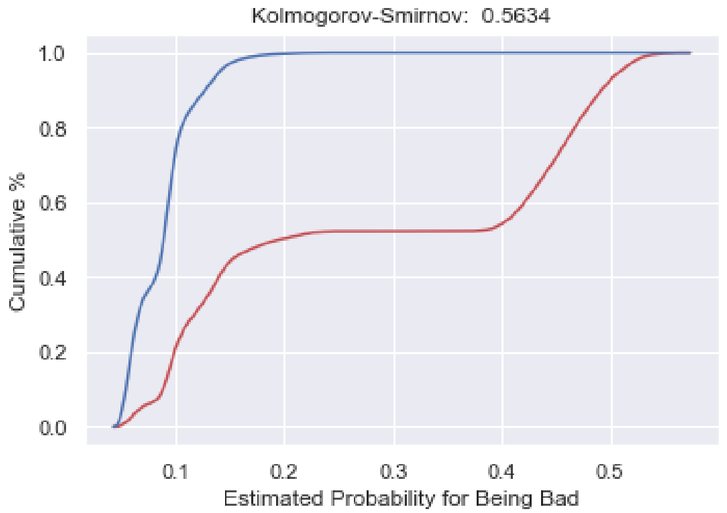
LOAN STATUS



The number of individuals characterised as **bad loans** is much less than **good loans**

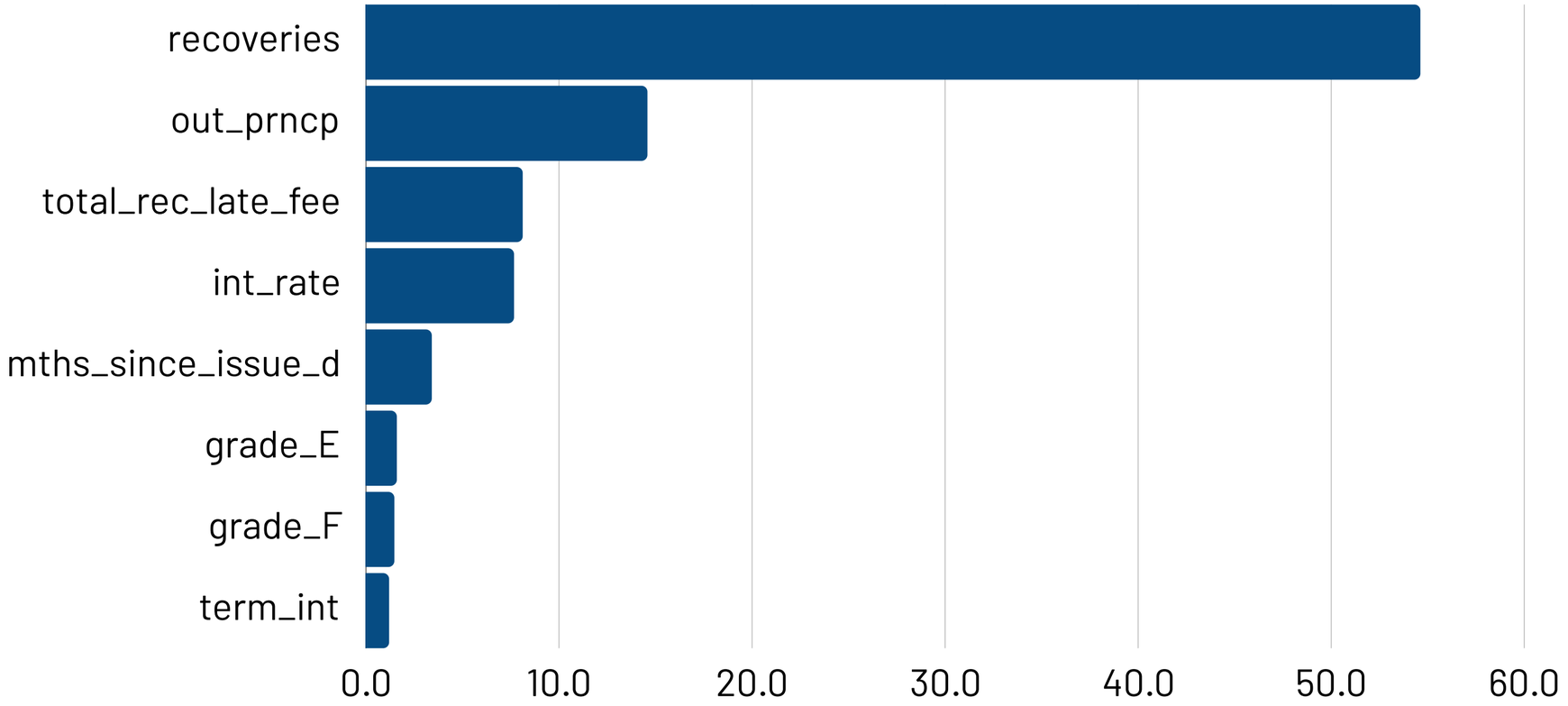
MODELING





Using Random Forest Model. The model built resulted in a performance of AUC = 0.857 and KS = 0.56. In the world of credit risk modelling, generally AUC above 0.7 and KS above 0.3 are considered good performance.

FEATURE IMPORTANCE



Top 3 feature importance is recoveries, out_prncp, total_rec_late_fee.

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THANK YOU

Link Project on Github