

01/01/2023

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# HOME CREDIT SCORECARD MODEL






# TABLE OF CONTENT


01. **PROBLEM RESEARCH**
02. **DATA PRE PROCESSIN**
03. **EDA**
04. **MACHINE LEARNING MODEL**
05. **BUSINESS RECOMENDATION**



# PROJECT BACKGROUND



**Home Credit strives to provide a positive borrowing experience for those with limited or no credit history. They use alternative data to assess clients' repayment capabilities, ensuring that deserving individuals aren't denied loans. This approach empowers clients for success.**





## ACTIONS

- Perform data cleaning, and visualization for business insights.
- Build a models with machine learning algorithms.
- Provide recommendations for company to increase their clients succeed in applying for loans.



## OBJECTIVE

- Identify characteristics of of potential clients who will have difficulty repaying loans and who will not.
- Predict client's repayment abilities.



# DATA PRE PROCESSING

## EDA

- Bivariate Visualization
- Multivariate Visualization

## DATA CLEANING

- Handling Missing Values
- Handling Outliers

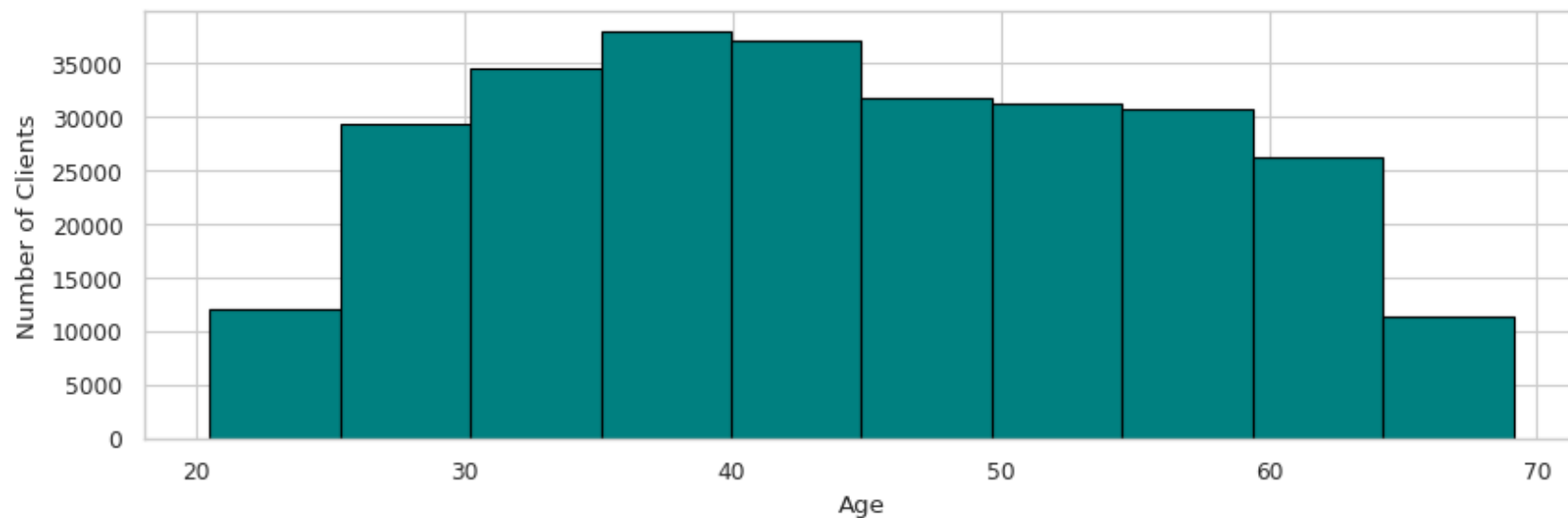
## MODEL BUILDING

- Logistic Regression
- Lightgbm

# EDA & INSIGHT

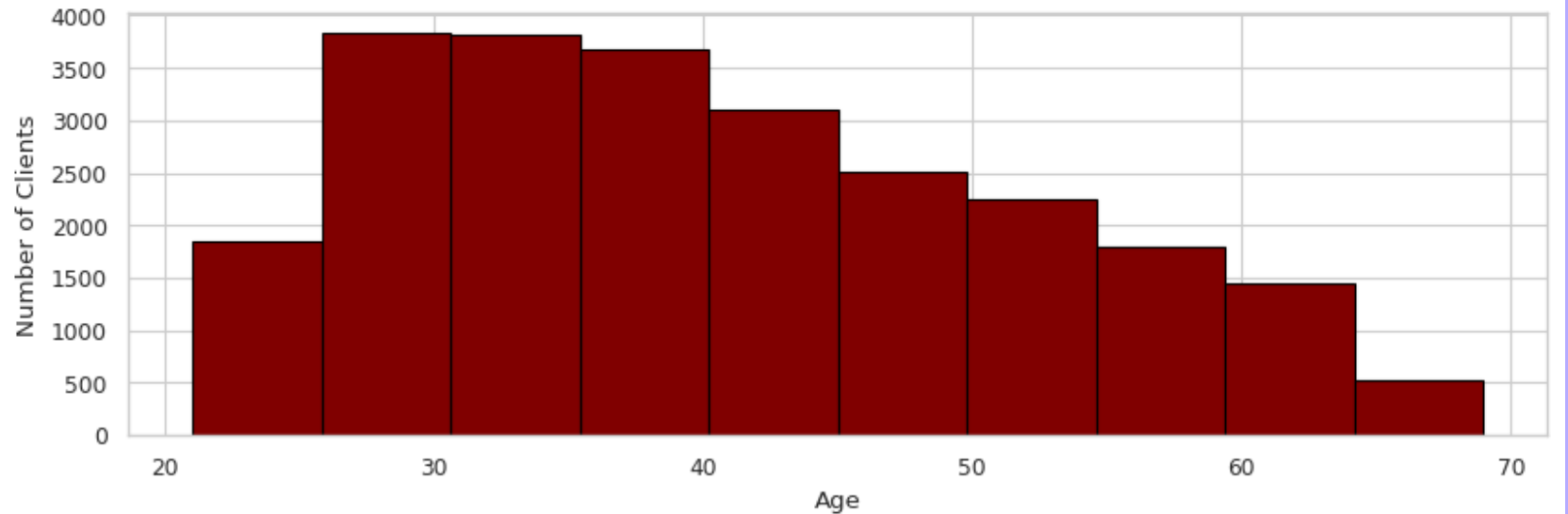


Age of Client (in years) who have No Payment Difficulties



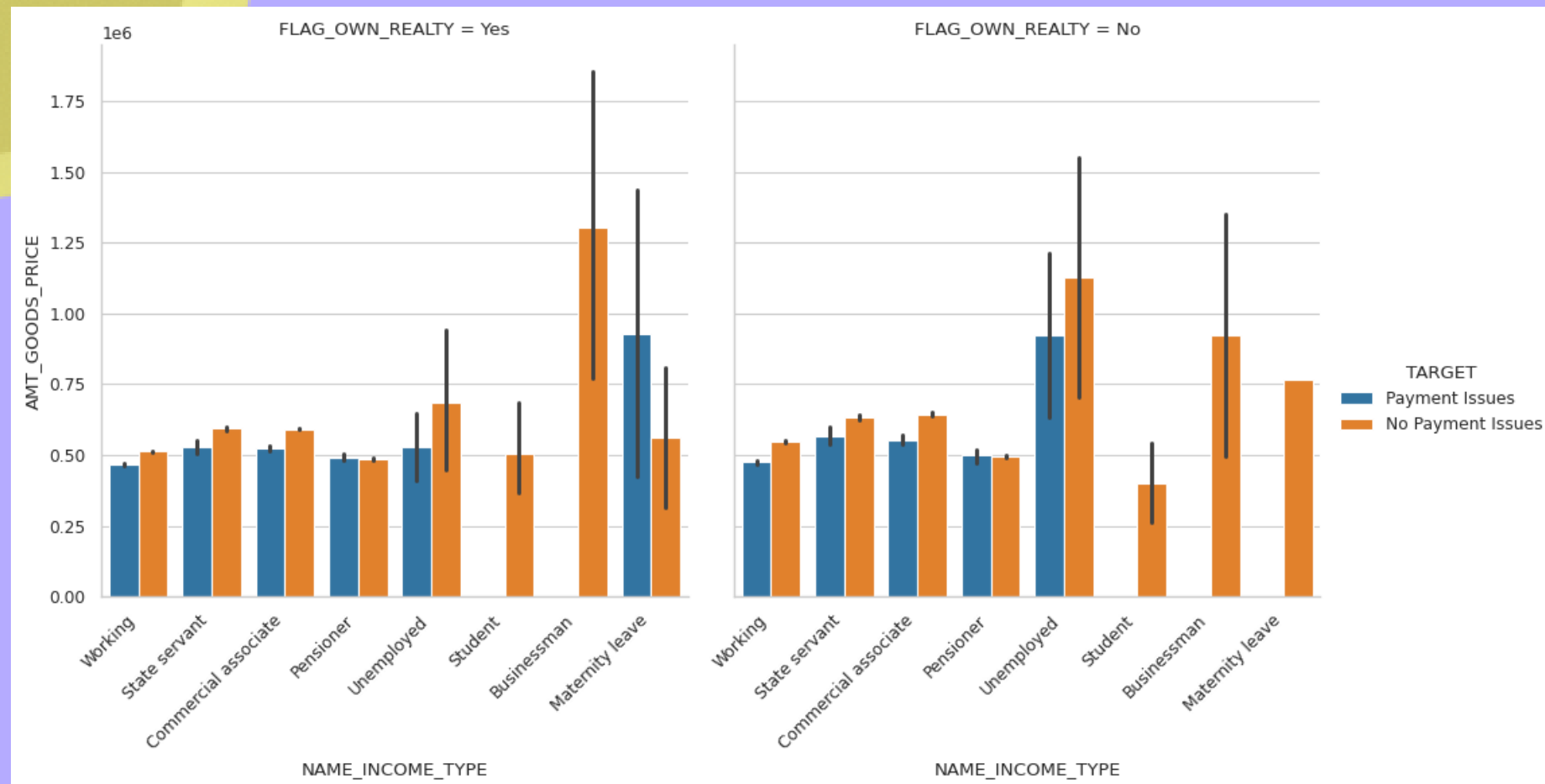
- Most number of clients who apply for loans are in the range of **35-40 years**.
- Meanwhile, the number of applicants for clients aged <25 or age >65 is very low.

Age of Client (in years) who have Payment Difficulties



- Clients who have **no payment difficulties** are clients in the range of **35-45 years**. You can target these clients as your priority.
- While clients who have **payment difficulties** are client the range of **25-35 years**.

# EDA & INSIGHT




- For the income type of **maternity leave** with **cash loans**, all the clients **have problems repaying** the loans for a medium credit amount of the loan. While all clients with maternity leaves and revolving loans have no difficulty repaying the loans.

- All student clients have no difficulty repaying the loans whether with a cash loan or revolving loan for a low to medium credit amount of the loan

- For **unemployed** clients with **cash loans**, **more than 50%** of **clients have problems repaying** loans with medium credit amounts of the loan. While all unemployed clients with revolving loans have no difficulty repaying the loan.

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# BUSINESS RECOMMENDATION

O1.

**Create a campaign so that more student, accountant, high skill tech staff, manager interested in applying for a loan**

O2.

Need further analysis, you can survey to find out if there is a problem if a client with maternity leaves or unemployed takes a cash loans contract. So, in the future, if there are clients with that type of income, you can recommend the right contract type so that their applications will be approved



Thank you

<https://github.com/fajararahman14/RakaminAcademyHomeCredit>

