TRACK B: DATA ANALYTICS USING PYTHON

TEAM CODECRAFT WINNOVATORS

INTRODUCTION

Banks operate by depositing money and giving loans against its savings. Hence it becomes imperative to know whether a certain customer is capable of repaying the loan.

An algorithm or a program that can determine the credit worthy rating of a client is of great importance.

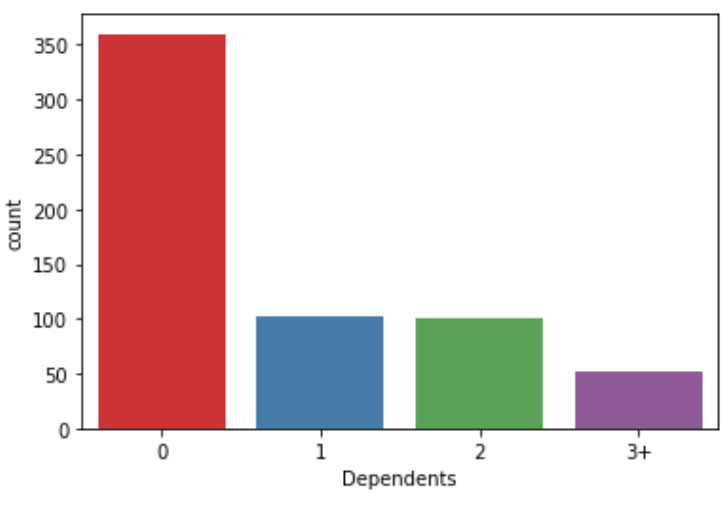
PROBLEM STATEMENT

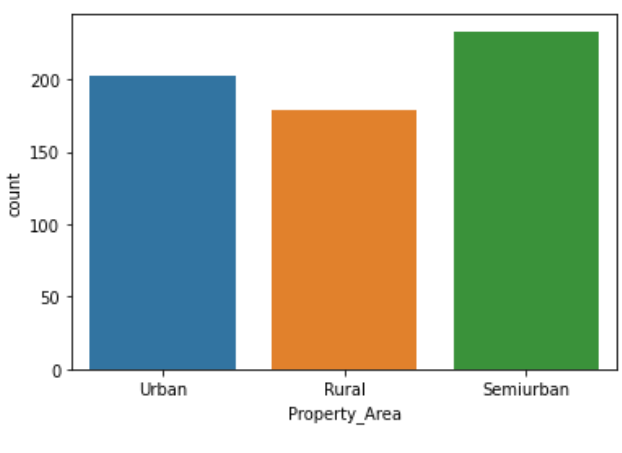
Visualize to find customer eligibility for home loan on factors like income, education level, dependents, etc

METHODOLOGY

The dataset is divided into 10 subsets or folds.
The 5 different algorithms- Logistic Regression, Decision Tree, Random Forest, KNearest Neighbour, and Gaussian Naive Bayes are applied to find out the best performer. Logistic Regression had the highest accuracy of around 80%.

INSIGHTS





• Married individuals have a higher approval rate at 71.8% compared to unmarried individuals at 62.9%.

• The highest approval rate is seen in semi-urban areas (76.82%), followed by urban areas (65.8%) and rural areas (61.45%)..

• Graduates, males, and self-employed individuals have relatively similar approval rates, ranging from 68.29% to 70.8%.

• Credit history plays a significant role, with a much higher approval rate for individuals with a credit history rating of 1 (79.04%) compared to 7.8% for those with a rating of 0..

• The approval rate for males is 69%, while for females it's 66.9%.

• These insights highlight the various factors influencing approval rates in the given dataset, such as gender, education, residential area, marital status, credit history, and employment status. Understanding these relationships can aid in making informed decisions for the coding project.

CONCLUSION

The program once given a large data set can accurately predict and correlate the various factors affecting the credit worthiness of a customer by looking and analysing different aspects about the customer's profile and records.

TEAM MEMBERS

SHRIYA VERMA, PRATIK BHOSAREKAR, NIHAL CHOPADA, SAMAR, JATIN SANDHYANSE, RITESH SHINDE.