
CREDIT CARD DEFAULT PREDICTION

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HDL Document

1.INTRODUCTION:

There are times when even a seemingly manageable debt, such as credit cards, spirals out of control. Loss of a job, medical crises, or business failures are some of the reasons that can impact your finances. In fact, credit card debts are usually the first to get out of hand in such situations due to hefty finance charges (compounded on daily balances) and other penalties. Many of us can relate to this scenario. We may have missed credit card payments once or twice because of forgotten due dates or cash flow issues. But what happens when this continues for months? How can we predict if a customer will default in the coming months? To reduce the risk for banks, a model has been developed to predict customer default based on demographic data like gender, age, and marital status, as well as behavioral data like recent payments and past transactions.

Due to all these issues, we, as data scientists, employ machine learning algorithms to predict which customers are likely to default in the future months. This helps banks proactively manage and reduce the percentage of defaulters on average.

2 .GENERAL DESCRIPTION

As we know this is a machine learning model here we use a Dataset Information. This dataset contains information on default payments, demographic factors, credit data, history of payment, and bill statements of credit card clients in Taiwan from April 2005 to September 2005. And there

are a total of 25 columns of data full of information. After a check there are no null data present in the dataset, it means it gives an advantage to making our model. After all the collection of data we compare each single column with our target column (default)

And finally we get some information as :

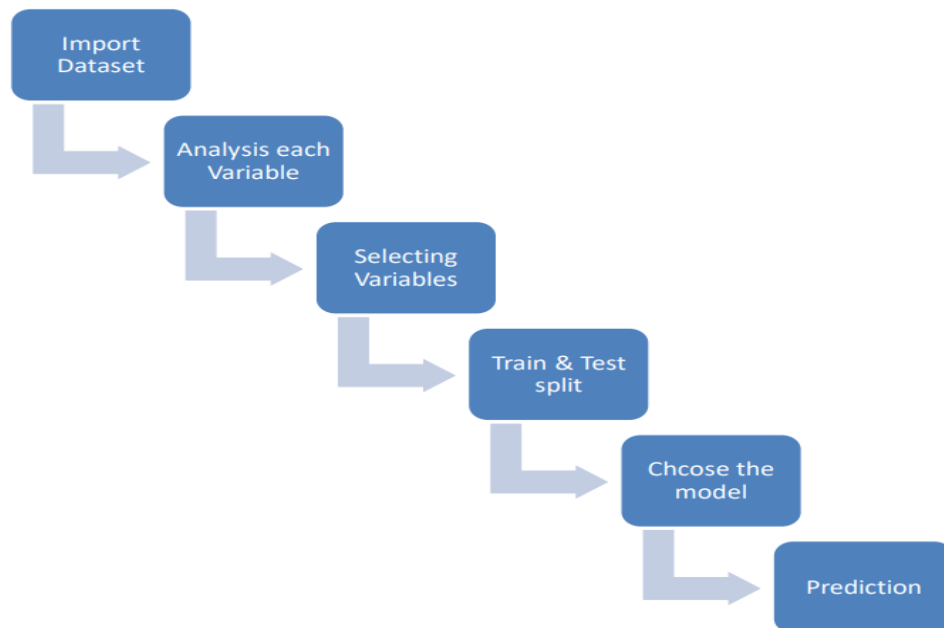
1. more women present than men in our dataset
2. comparatively, men have a slightly higher chance of default.
3. There are few people on the 'unknown' categories but we change them to another category
4. who are educated they are less chance to be default
5. most people fall either on the 'Married' or 'Single' category who takes lone

6. in between 25 and 40 years old peoples are low change to be default the higher the limit, lower the chance of default
7. all the over we see that being Female, More educated, Single and between 30-40years old means a customer is more likely to make payments on time.

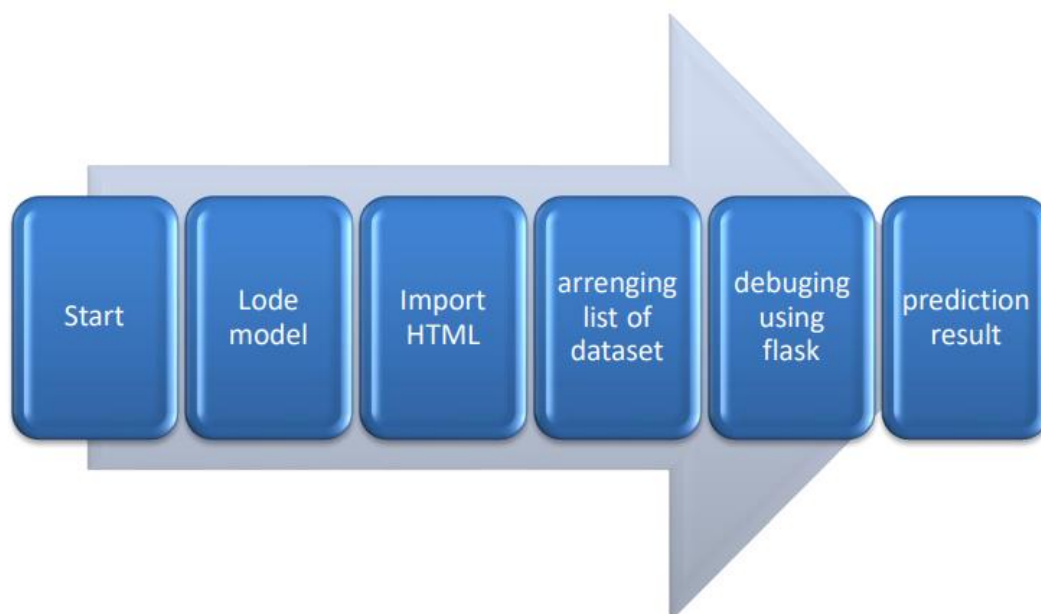
TOOL US:



DESIGN DETAILS:



Deployment process :



Conclusion:

The project is designed in flask; hence it is accessible to everyone. The above designing process will help banks and loan lenders predict whether customers will default the credit card payment or not, so the bank or respective departments can take necessary action, based on the model's predictions. The UI is made to be user-friendly so that the user will not need much knowledge of any tools but will just need the information for results