**House Loan Data Analysis**

Project 1

DESCRIPTION

For safe and secure lending experience, it's important to analyze the past data. In this project, you have to build a deep learning model to predict the chance of default for future loans using the historical data. As you will see, this dataset is highly imbalanced and includes a lot of features that make this problem more challenging.  
  
**Objective:**Create a model that predicts whether or not an applicant will be able to repay a loan using historical data.

**Domain:**Finance

**Analysis to be done:**Perform data preprocessing and build a deep learning prediction model.

**Steps to be done:**

⦁    Load the dataset that is given to you  
⦁    Check for null values in the dataset  
⦁    Print percentage of default to payer of the dataset for the TARGET column  
⦁    Balance the dataset if the data is imbalanced  
⦁    Plot the balanced data or imbalanced data  
⦁    Encode the columns that is required for the model  
⦁    Calculate Sensitivity as a metrice  
⦁    Calculate area under receiver operating characteristics curve

You can download the datasets from here - <https://www.dropbox.com/s/smt43gz12eijbo6/loan_data%20%281%29.csv?dl=0>