Loan Approval Prediction

The Dream Housing Finance Company's current process of approval for loan applications involves weighing specific criteria found in the application and deciding whether or not to approve the loan request. This requires a significant amount of company time and resources in reading through individual loan applications, where the company would rather have the few loan applications that are strong candidates for approval to search through. Thus, Dream Housing Finance Company is looking to automate the loan eligibility process (real-time) based on the customer detail provided in the loan application. This information includes but is not limited to gender, marital status, education, number of dependents, income, credit history and others.

Dream Housing Finance Company has provided two sets of data, one to train the data to the model we are developing and another to be tested by the model. The train data set has key variables mentioned above like gender, marital status, education, etc., as well as a response on approval of the loan in the form of a simple Y or N. We will be able to use this data to infer the relationships between each of the variables mentioned and the approval of the loan, coming to a determination on which variables have strong correlations to the approval of the loan. We will then use the test data set to predict the approval of each of the customers loan applications.

I will utilize a Github repo that contains the step by step work completed in solving this business problem. I will convey the findings through a slide deck as well as a progress report that details my findings, outlining the relationships between the variables Dependents, Married, Loan_Amount_Term, Loan_Amount, etc. as well as highlighting key features in said relationships.