Conceptual Design

Step1 : Download the Given Dataset and a couple of images and store all of them in the same directory.

Step2 : Load the dataset and check for the missing data if any. Replace the Numerical missing data with the mean and the Categorical missing data with the mode of the rest of data.

Step3 : Convert the Numerical data to logarithmic value of the data and add them to the table as using the logarithmic data we get a normalised distribution which helps the model in learning better.

Step4 : Split the data into training and testing parts and train them using different models. We have used Logistic regression, Decision tree, Random forest and Gradient Boosting algorithms to train the data.

Step5 : Get the accuracies of all the models and compare them to get the best model with the highest accuracy.

Step6 : For the best model we can construct a graph showing the importance of each feature/predictor in predicting the outcome.

Step7 : Take all the predictors that are required as input at the Interface and use the best model to predict whether the loan should be given or not. Attractive Images can be used to display the same.

Step8 : Program is tested for all the inputs as well as unit test is incorporated into the modelling and program.