

# **PREDICTING PERSONAL LOAN APPROVAL USING MACHINE LEARNING**

## **DEFINE PROBLEM / PROBLEM UNDERSTANDING**

### **Business Requirement**

The business requirements for a machine learning model to predict personal loan approval include the ability to accurately predict loan approval based on applicant information, Minimise the number of false positives (approved loans that default) and false negatives (rejected loans that would have been successful). Provide an explanation for the model's decision, to comply with regulations improve transparency.

The primary goal in the banking sector is to place their funds in safe hands. Many banks and financial institutions now grant loans after a lengthy process of verification and validation, but there is no guarantee that the chosen applicant is the most deserving of all applicants. We can forecast whether a given applicant is safe or not using our method, and the entire feature validation process is automated using machine learning techniques. Loan Prediction is extremely beneficial to both bank employees and applicants.

The purpose of this paper is to provide a quick, straightforward, and efficient method of selecting qualified applicants. It may provide the bank with unique benefits. The Loan Prediction System can calculate the weight of each characteristic involved in loan processing automatically, and the same features are processed according to their associated weight on new test data. The applicant can be given a deadline to determine whether or not his or her loan will be approved. The Loan Prediction System allows you to jump to a specific application and review it on a priority basis [2]. This approach allows you to jump on specific applications that deserve to be accepted first. Gender, Married, Dependents, Education, Self-Employed, Applicant Income, Coapplicant Income, LoanAmount, Loan Amount.