Model Selection :

Step 1: Data split and Adaptive Synthetic Method to perform minority class oversampling

Step 2 : Determine ideal hyper parameters for each model for recession to maximise ROC\_ AUC curve to evaluate each model and identify best model to be used.

Ideal Model Parameters for maximum ROC\_AUC

Evaluate models with ideal parameters to determine best model

Step 3 : Use Logistic regression to predict recession probabilities.