Module 6: Case Study 2 – ROC Curve

Problem Statement:

Sam's next exam is on 'ROC curve'. Questions would be asked on the basis of what you've learnt in the respective module.

Tasks to be performed:

1. Build a logistic regression model:
   a. Start off by dividing the data-set into 'train' & 'test' sets in 80:20 ratio, with the split criteria being determined by 'Churn' column
   b. Build a logistic regression model on the train set where the dependent variable is 'Churn' & the independent variables are 'MonthlyCharges', 'tenure' & 'TechSupport' & store the result in 'log_mod_roc'
   c. Predict the values on top of the test set & store the result in 'result_log_roc'
   d. Use the performance () function from the ROCR package & build the 'Accuracy vs cut-off' plot e. Plot the 'ROC' curve
   e. Find out the "area under the curve"