Use [Classification Data1.xlsxPreview the document](https://sit.instructure.com/courses/29149/files/4674764/download?verifier=hsEkoEbrC98JrEhWiSyBO4SiWh2HLC8dnae8K7kd&wrap=1) for this homework

- Define binary and dummy variables for the categorical variables in this dataset and report it in an excel file (20%)

- Develop a linear discriminant analysis model to predict Y (+ or -) and report the ROC curve (40%)

- Find the k in the range of 3 to 10 that provides the most accurate KNN model to classify Y and report its confusion matrix (40%)