The 3 mini projects are from scratch implementation of the following using Python –

1.) **Random Forest classifier** – Creating specified decision trees by using random specified attributes to predict the best outcome. It is implemented for categorical data and uses Entropy for Information gain.
Implemented on Bank data set with Bank test data provided.

2.) **K-mode Clustering** – Clustering method for categorical data to group similar kind of data together based on mode.
Implemented for mushroom dataset.

3.) **LOF Outlier detection** – Detecting outliers in a data by finding LOF ratios. These ratios are then normalized to find the threshold and a graph can be plotted showing the outliers.
Implemented on a sample data of coordinates.