21BM681 Machine Learning and Embedded Programming Lab

Exercise 2   **Date:09/08/2023**

1. Create a python list, update the list.
2. Create a python tuple, a sub-tuple from it. Compare list and tuple and note the inference.
3. Create a data set having 20 samples and five features. Check the below functions.
   - ➢ Shape
   - ➢ Describe
   - ➢ Values
   - ➢ Head
   - ➢ Groupby
   - ➢ drop a column
4. Read a csv file using pandas and do the following
   a. Print the information about the data
   b. Print the statistical information such as mean, standard deviation
   c. Print the data types of each column
   d. Breakdown of the data by class variable
   e. Importing the data, Splitting the data into training/ test sets
   f. Check the functions mentioned in question 3.
5. Write a python program that applies the following loop statements: if, if else, elif, while, for.
6. Write a user defined **function** program for performing a task.

\# Note: Libraries to be familiarized: Numpy, Pandas, Matplotlib, Sci-kit Learn