21BM681 Machine Learning and Embedded Programming Lab

Exercise 1 **Date: 26/07/2023**

1. Generate a sample with 10 features.
2. Create a dataset of size 10x10
3. Identify the function for identifying array's total number of elements
4. Create a random integer sample vector of dimension 100, where all the elements are less than or equal to 50. Using the array indexing concept, retrieve the vector's last and second last elements.
5. Create a random sample matrix, A, of dimension 5x5 and extract the subarray, B of size 2x2, from the bottom left corner of A.
6. Convert a random sample 10x10 matrix into a 20x5 matrix.
7. Split the feature array X = [34, 67, 42, 37, 88, 50, 77, 94, 34, 74] into three other matrices. The splitting points are 37 and 94.
8. Create a sample sequence of 20 evenly spaced numbers between 10 and 20.
9. How do you compute the cumulative sum and cumulative product of elements in an array?
10. Obtain the statistical measures of a randomly defined dataset.