Course Name: Machine Learning Lab
Course code: CS360
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Introduction:

Machine Learning (ML) is basically the field of computer science, with the aid of which computer systems can make data meaningful in much the same way as human beings do. In simple terms, ML is a type of artificial intelligence that extracts patterns from raw data using an algorithm or method. The main focus of ML is to allow computer systems to learn from experience without specifically programming or human intervention.

Prerequisites:

Python (3.7), NumPy, Scikit-learn, Scipy, Matplotlib, tensorflow, keras/pytorch

Platform: Google Colab (For tutorial of google colab follow the link here or here)

You are requested to complete all the question in one file only (Google colab file)

Assignment 0
Total Marks: 1x10 = 10

1. Write a python program to get the Python version you are using
2. Write a Python program to locate Python site-packages
3. Write a python program to get the path and name of the file that is currently executing
4. Write a python program to randomly generate two matrices of size [2x3 and 3x2] and do the matrix multiplication using the two generated matrices. (Say A = BC)
5. Use a for loop to implement the above question five times and thereafter take the average of all the five matrices and display the result.
6. Write a program to transfer the matrix (generated in question 5) to the csv file and then read the same matrix and display the transposition of it.
7. Write a program to find the mean, mode, and median of the above-mentioned matrix.
8. Write a program to print the upper triangle of the matrix
9. Write a Python program to read specific columns of a given CSV file and print the content of the columns. (Column number should be given by the user)
10. Write a Python program to replace a user-defined number present in the CSV file by the character 'A'.