

# Assignment 1

## Machine Learning Classifier

**Date:- 19-12-2023**

### **Instructions:**

**1. Coding must be done using Python, and available libraries such as numpy, pandas and scikit learn can be used.**

**2. Proper indentation and appropriate comments are mandatory.**

**3. You should zip all the required files and name the zip file as *roll\_no.zip*, eg. *1501cs11.zip*. **4.****

**Upload your assignment (the zip file) in the following link:**

[https://docs.google.com/forms/d/e/1FAIpQLSfmTzgDcJuyyczT4yRM5aeJJ7FTNpEOHWf2\\_-WwXZ-0PT5\\_lw/viewform?usp=sharing](https://docs.google.com/forms/d/e/1FAIpQLSfmTzgDcJuyyczT4yRM5aeJJ7FTNpEOHWf2_-WwXZ-0PT5_lw/viewform?usp=sharing)

### Assignment-1

Design a predictive regression model that forecasts sales based on the "Advertising.csv" dataset.

Afterwards, employ logistic regression and Support Vector Machines (SVM) to predict defaulters using the "Credit.csv" and "Credit-Modified.csv" datasets. Perform a 70-30 train-test split for model evaluation and measurement of performance. Create a scatter plot with a clear separation line to visualize the data distribution.

### **Dataset Link:**

#### **Advertising.csv:**

<https://drive.google.com/file/d/1TqQj66OJGyFYyPymVL60v2Aqs61u1B69/view?usp=sharing>

#### **Credit.csv:**

<https://drive.google.com/file/d/1BHxgqsgccxepOR8Iu3SUSanGj286MNHZ/view?usp=sharing>

#### **Credit-Modified:**

<https://drive.google.com/file/d/1pKZM1aJKnfbTdZ7vsZJSzjre3cCuBpLZ/view?usp=sharing>

