ASSIGNMENT 1

Qn 1 :

1.Implement Naïve Bayes method using scikit-learn library

Use dataset available with name glass

Use train\_test\_split to create training and testing part

Evaluate the model on test part using score and

A screenshot of a computer code

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‘train\_test\_split’ is used to divide the data into training and testing data. Gaussian Naïve Bayes classification is used to train the data and accuracy\_score is used from the metrics library of scikit to find the score.

Qn 2 :

2. Implement linear SVM method

using scikit-learn Use the same dataset above

Use train\_test\_split to create training and testing part

Evaluate the model on test part using score and

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LinearSVC is used as the model to train the data. ‘accuracy\_score’ is used to find the score and ‘classification\_report’ is used to find the precision, and recall for different classes.

SVM is performing better than the Naive Bayes classification as we can see from the above results. The Naive Bayes considers each feature as an independent one whereas SVM works well with non-linear data as it makes a radial-based hyperplane for classification.

QN 3:

3. Implement Linear Regression using scikit-learn

a) Import the given “Salary\_Data.csv”

b) Split the data in train\_test partitions, such that 1/3 of the data is reserved as test subset.

c) Train and predict the model.

d) Calculate the mean\_squared error.

e) Visualize both train and test data using scatter plot.

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A screenshot of a computer program

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A graph with red and blue dots

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**GITHUB LINK** : https://github.com/TriveniBala/Neural-Assignment