Data Driven Computing and Networking (DDCN-2019)

Classification using SVM Algorithm using IRIS dataset

A. Write a python script to perform the following tasks:-

1. Import all the required packages to implement SVM Classification algorithm using IRIS dataset
2. Load IRIS dataset and print description, feature data and target data of IRIS dataset.
3. Define functions and call them to visualize sepal data and petal data from IRIS data set.
   def visuvalize_sepal_data():
4. Extract two features of sepal data and target from IRIS dataset and store them in X and Y and also initialize the value of C with 1.0.
5. Create a SVM classifier using SVC function with "linear" kernel, C=1.0 and fit the created SVM model on data X and Yand store the fitted model in variable "svc".
6. Create another SVM classifier using LinearSVC function with "linear" kernel, C=1.0 and fit the created SVM model on data X and Yand store the fitted model in variable "lin_svc".
7. Create another SVM classifier with "rbf" kernel with gaama 0.7, C=1.0, and fit the created SVM model on data X and Yand store the fitted model in variable "rbf_svc".
8. Create another SVM classifier with "polynomial" kernel with degree 3, C=1.0 and fit the created SVM model on data X and Yand store the fitted model in variable "poly_svc".
9. Create a meshgrid by extracting minimum and maximum values of X and Y
10. Plot charts for all the created SVM classifer model and display them.
11. Perform all the above operations for petal data from IRIS Data set