Problem Statement of Flower Classification

Problem statement:-

We are providing a dataset consists of 3 labels of 50 samples from each (Iris setosa, Iris virginica and Iris versicolor) i.e, a total of 150 instances. Four features were measured from each sample (in centimeters):

- Length of the sepals (in centimeters)
- Width of the sepals (in centimeters)
- Length of the petals (in centimeters)
- Width of the petals (in centimeters)

- **3 labels: species of Iris (*Iris setosa, Iris virginica* and *Iris versicolor*)**

The aim is to classify these samples into their category of species and train the model based on these features using suitable machine learning algorithm. Split the dataset for training, testing of the model (Split the dataset in (3:1) ratio for better result).

Dataset to be used: Iris dataset

Description about the dataset-This data set consists of the physical parameters of three species of flower (Versicolor, Setosa and Virginica). The numeric parameters which the dataset contains are length and width of sepal and length and width of petal.

The iris data set contains 3 classes of 50 instances each, where each label refers to a type of iris plant. The dataset consists of – 5number of columns, and 150 number of rows.

Note:

- **Predict the output for entire test dataset.**
- **Print the accuracy of the model at the end.**
- **Make sure your code is well commented.**
- **In case of any difficulty feel free to ask in Enigma's discord server (https://discord.gg/Qwa6gtWP).**

Tools required to perform the task: -

To perform this task you can either use jupyter notebook installed on your computer or you can use Google Colab Platform (It is a free Jupyter notebook environment that runs entirely in the cloud).

Follow either of the track to perform your task (Use Google Colab – Recommended)**

1- If you want to use Google Colab (you don't need to perform any installation) :

- How to use Google Colab tutorial: https://www.youtube.com/watch?v=i-HnvsehuSw
- Sign in using your email id at: https://colab.research.google.com/notebooks/intro.ipynb
- You don't need to download the dataset separately. Directly use the following code into your source code to import the dataset.

```
From sklearn.datasets import load_iris
```

then load it into some variable and use as per your need

```
variable =load_iris()
```

2- If you want to use your local computer :

- Jupyter notebook setup: https://www.youtube.com/watch?v=DVahWSqQaAc
- Download the dataset from here : https://www.neuraldesigner.com/files/datasets/iris_flowers.csv

How to submit?

Save your code in (Your_Name.ipynb) format.

Submit your code through GitHub.

Steps to submit through github :

- Fork this repository (https://github.com/EnigmaVSSUT/induction-2021-2nd-yr)
- Add your solution in (in proper format ass mentioned above) the 'Task Submission' section inside 'Machine Learning' folder.
- Then make a pull request for evaluation.