

Deployment on Flask(Week4)

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Submission date: 28/03/2023
Submitted to: Data Glacier

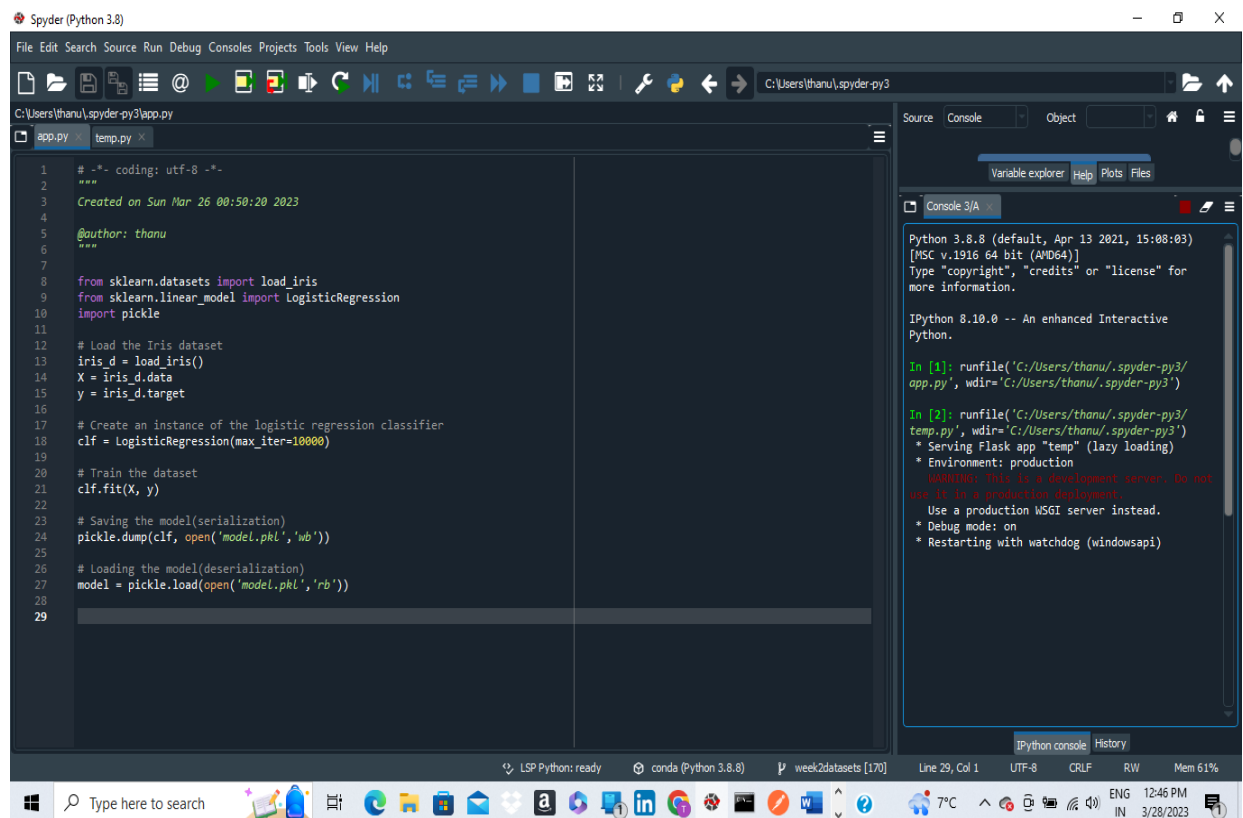
Steps of deployment:

1. Select toy data.

Here, we are selecting 'iris data'. This data consists of 150 observations and 4 features(sepal length, sepal width, petal length, and petal width).

2. Train and save the model.

Below is the code for training the model to predict species of the flower based on its four features and saving it.

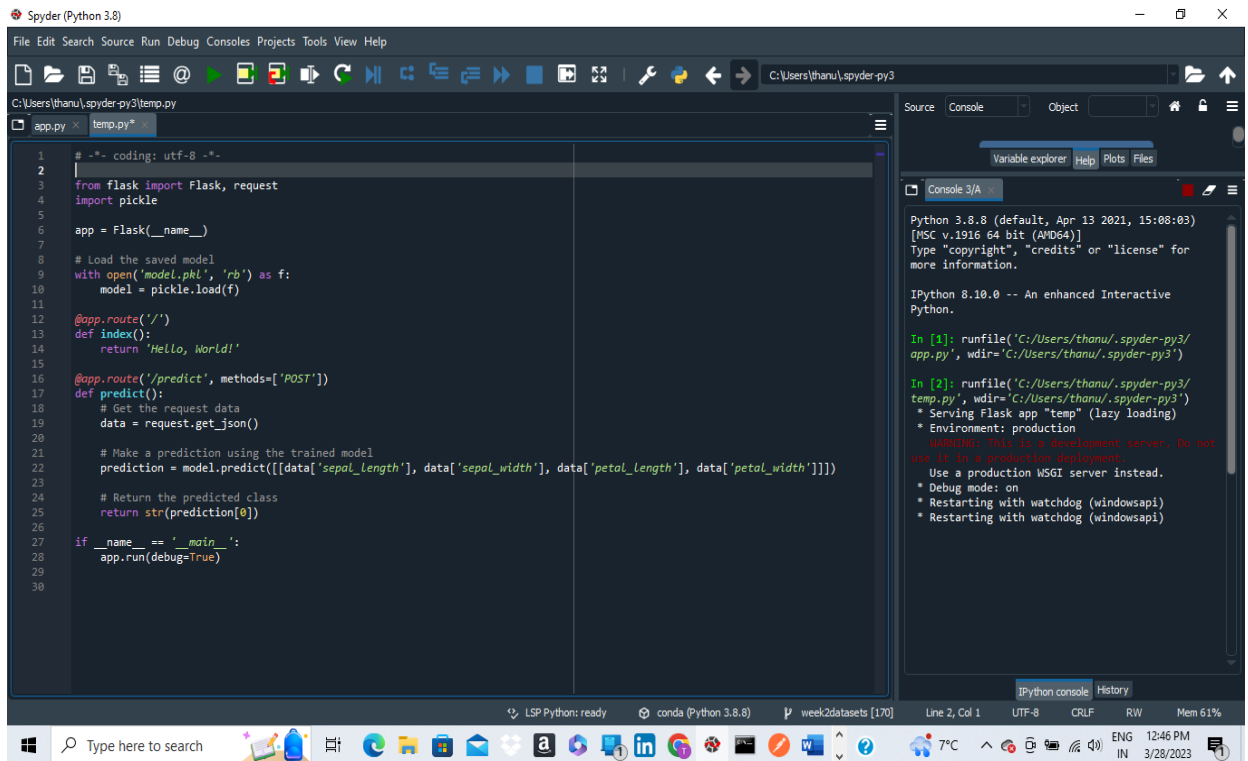


```
1  #-*- coding: utf-8 -*-
2  """
3  Created on Sun Mar 26 00:50:20 2023
4
5  @author: thanu
6  """
7
8  from sklearn.datasets import load_iris
9  from sklearn.linear_model import LogisticRegression
10 import pickle
11
12 # Load the Iris dataset
13 iris_d = load_iris()
14 X = iris_d.data
15 y = iris_d.target
16
17 # Create an instance of the logistic regression classifier
18 clf = LogisticRegression(max_iter=10000)
19
20 # Train the dataset
21 clf.fit(X, y)
22
23 # Saving the model(serialization)
24 pickle.dump(clf, open('model.pkl', 'wb'))
25
26 # Loading the model(deserialization)
27 model = pickle.load(open('model.pkl', 'rb'))
28
29
```

The screenshot shows the Spyder Python IDE interface. The left pane displays the Python code for training a logistic regression model on the Iris dataset. The code includes imports for sklearn, loading the dataset, training the model, and saving it as a pickle file. The right pane shows the IPython console with the output of the code execution, indicating that the model was successfully trained and saved.

3. Deploy the model on a flask.

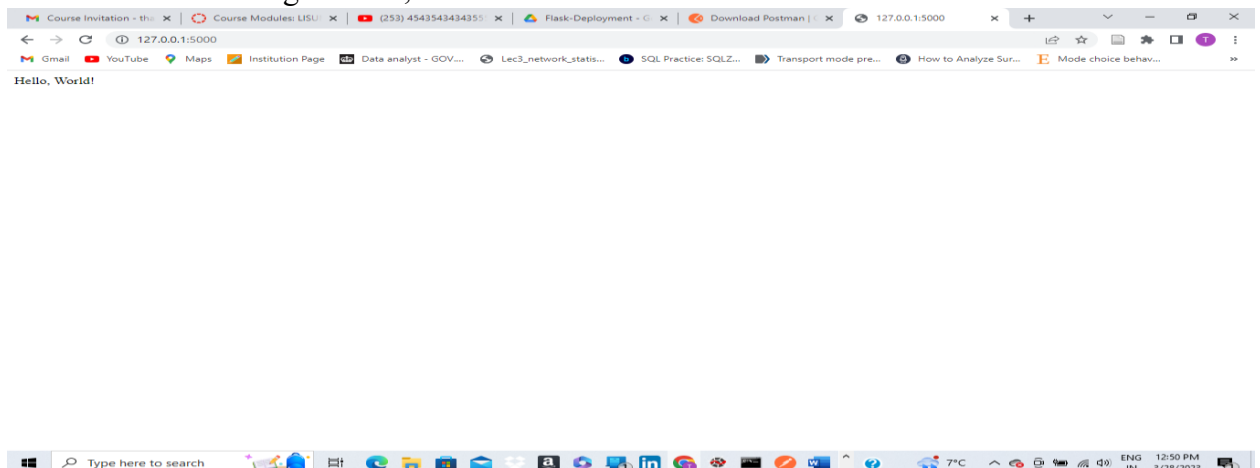
We are creating the flask web app to deploy the model here.



- The code for deployment is run in the command prompt. Then copy the URL of the website and paste it into the web browser.



We can see the message 'Hello, World'.



5. To make a prediction, we used Postman to send a POST request to <http://127.0.0.1:5000/predict> with the JSON data containing the features. We got the result as 1 for the given data in JSON.

