Name – Apurwa Bhausaheb Sontakke

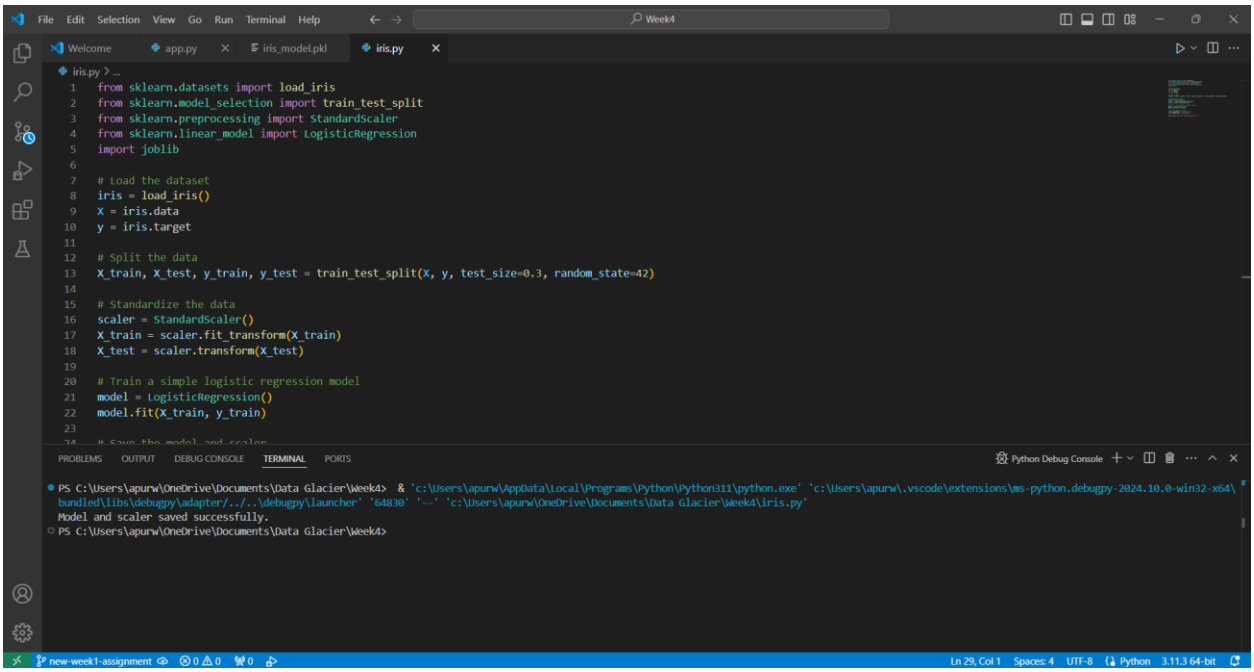
Batch code -LISUM32

Submission date – 03/28/2024

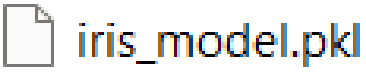
Submitted to – Data Glacier

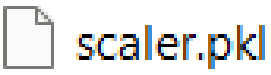
Snapshots of the Deployment Process

Selected Iris Dataset and used the regression model:

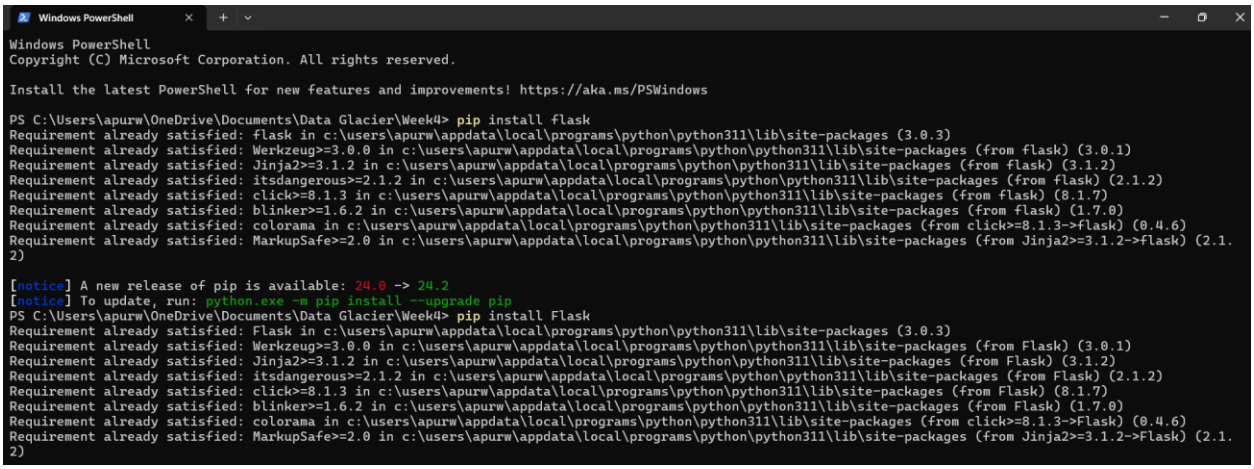


Both the model was saved:





Installed and made sure Flask is running properly



```
Windows PowerShell
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\apurw\OneDrive\Documents\Data Glacier\Week4> pip install flask
Requirement already satisfied: flask in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (3.0.3)
Requirement already satisfied: Werkzeug>=3.0.0 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from flask) (3.0.1)
Requirement already satisfied: Jinja2>=3.1.2 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from flask) (3.1.2)
Requirement already satisfied: itsdangerous>=2.1.2 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from flask) (2.1.2)
Requirement already satisfied: click>=8.1.3 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from flask) (8.1.7)
Requirement already satisfied: blinker>=1.6.2 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from flask) (1.7.0)
Requirement already satisfied: colorama in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from click>=8.1.3->flask) (0.4.6)
Requirement already satisfied: MarkupSafe>=2.0 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from Jinja2>=3.1.2->flask) (2.1.
2)

[notice] A new release of pip is available: 24.0 -> 24.2
[notice] To update, run: python.exe -m pip install --upgrade pip
PS C:\Users\apurw\OneDrive\Documents\Data Glacier\Week4> pip install Flask
Requirement already satisfied: Flask in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (3.0.3)
Requirement already satisfied: Werkzeug>=3.0.0 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from Flask) (3.0.1)
Requirement already satisfied: Jinja2>=3.1.2 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from Flask) (3.1.2)
Requirement already satisfied: itsdangerous>=2.1.2 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from Flask) (2.1.2)
Requirement already satisfied: click>=8.1.3 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from Flask) (8.1.7)
Requirement already satisfied: blinker>=1.6.2 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from Flask) (1.7.0)
Requirement already satisfied: colorama in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from click>=8.1.3->Flask) (0.4.6)
Requirement already satisfied: MarkupSafe>=2.0 in c:\users\apurw\appdata\local\programs\python\python311\lib\site-packages (from Jinja2>=3.1.2->Flask) (2.1.
2)
```
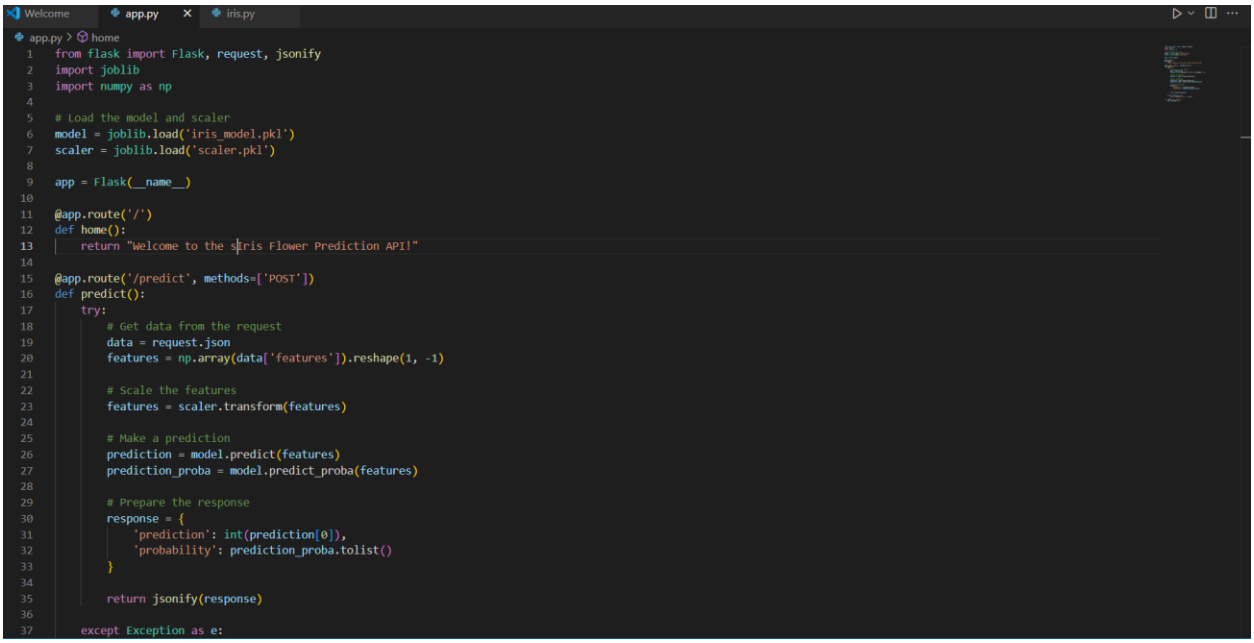

Flask app: Created a file named app.py -



```
Welcome  app.py  iris.py
app.py > home
from flask import Flask, request, jsonify
import joblib
import numpy as np

# Load the model and scaler
model = joblib.load('iris_model.pkl')
scaler = joblib.load('scaler.pkl')

app = Flask(__name__)

@app.route('/')
def home():
    return "Welcome to the Iris Flower Prediction API!"

@app.route('/predict', methods=['POST'])
def predict():
    try:
        # Get data from the request
        data = request.json
        features = np.array(data['features']).reshape(1, -1)

        # Scale the features
        features = scaler.transform(features)

        # Make a prediction
        prediction = model.predict(features)
        prediction_proba = model.predict_proba(features)

        # Prepare the response
        response = {
            'prediction': int(prediction[0]),
            'probability': prediction_proba.tolist()
        }

        return jsonify(response)

    except Exception as e:
```

```
    except Exception as e:
        return jsonify({'error': str(e)})

if __name__ == '__main__':
    app.run(debug=True)
```

Running the Flask App

```
PS C:\Users\apurw\OneDrive\Documents\Data Glacier\Week4> python app.py
 * Serving Flask app 'app'
 * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 114-083-693
127.0.0.1 - - [01/Sep/2024 12:17:28] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [01/Sep/2024 12:17:28] "GET /favicon.ico HTTP/1.1" 404 -
 * Detected change in 'C:\\Users\\apurw\\OneDrive\\Documents\\Data Glacier\\Week4\\app.py', reloading
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 114-083-693
```

Deployment final output on server: