Data Intake Report

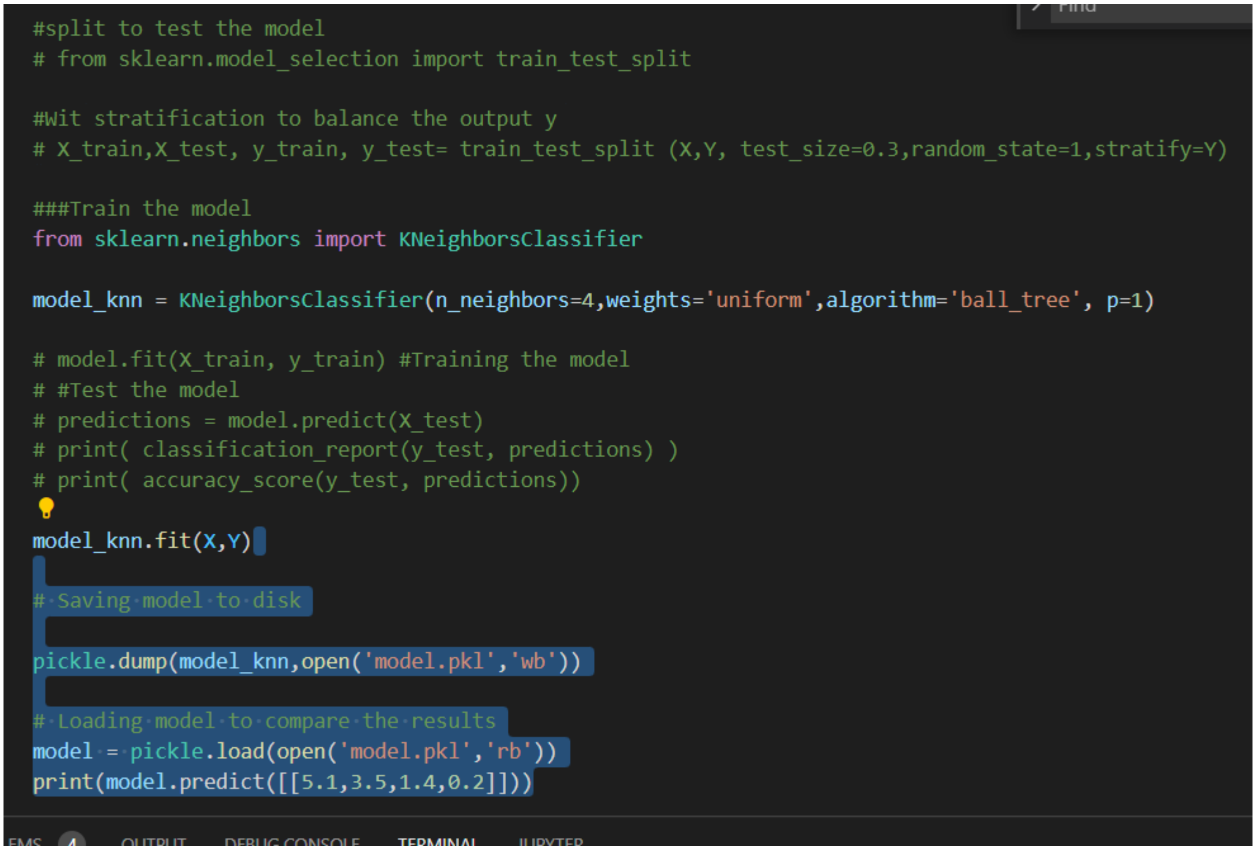
Name: Predict iris species
Report date: 23/Feb/2022
Internship Batch: LISUM06
Version:<1.0>
Data intake by: Moath Bin Musallam
Data intake reviewer:
Data storage location: local storage

Tabular data details:

Total number of observations	150
Total number of files	1
Total number of features	5
Base format of the file	.csv
Size of the data	4,49 KB

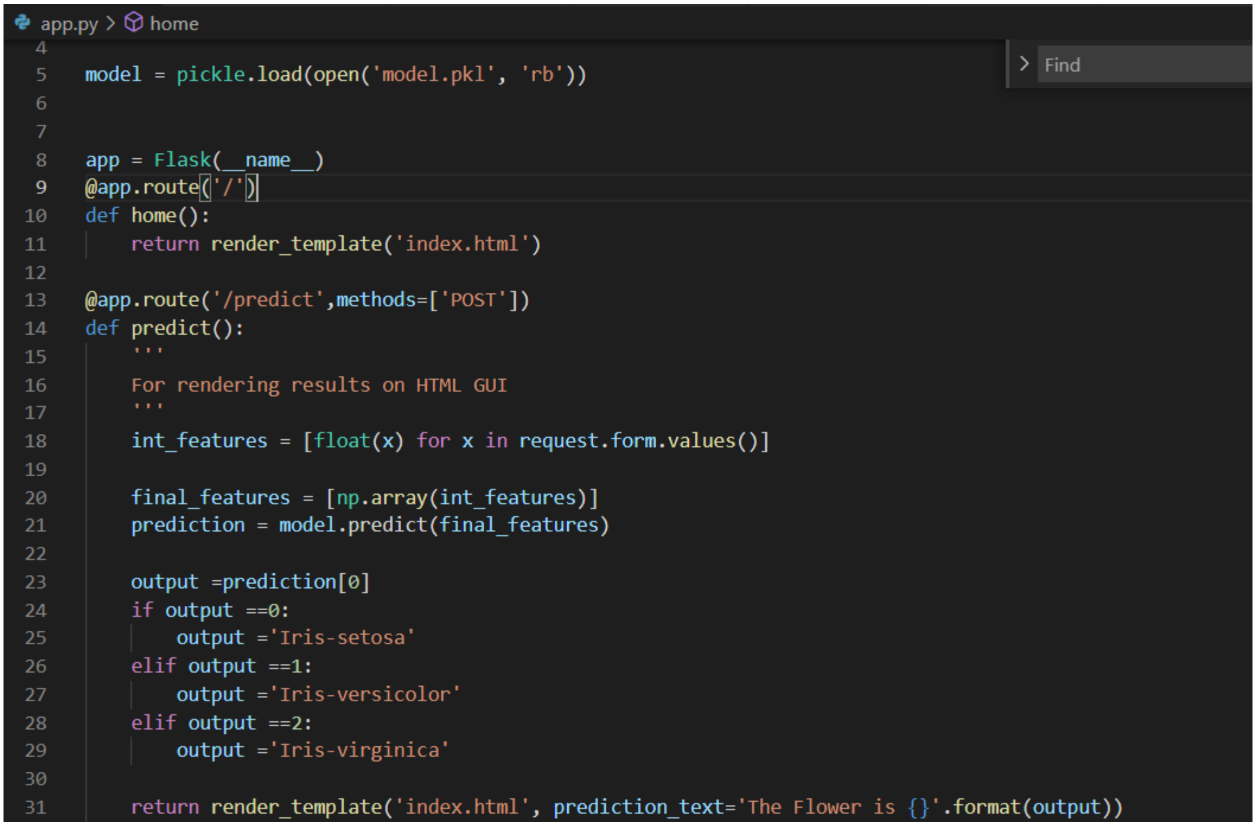
Machine learning model:

Using knn because it is better model.



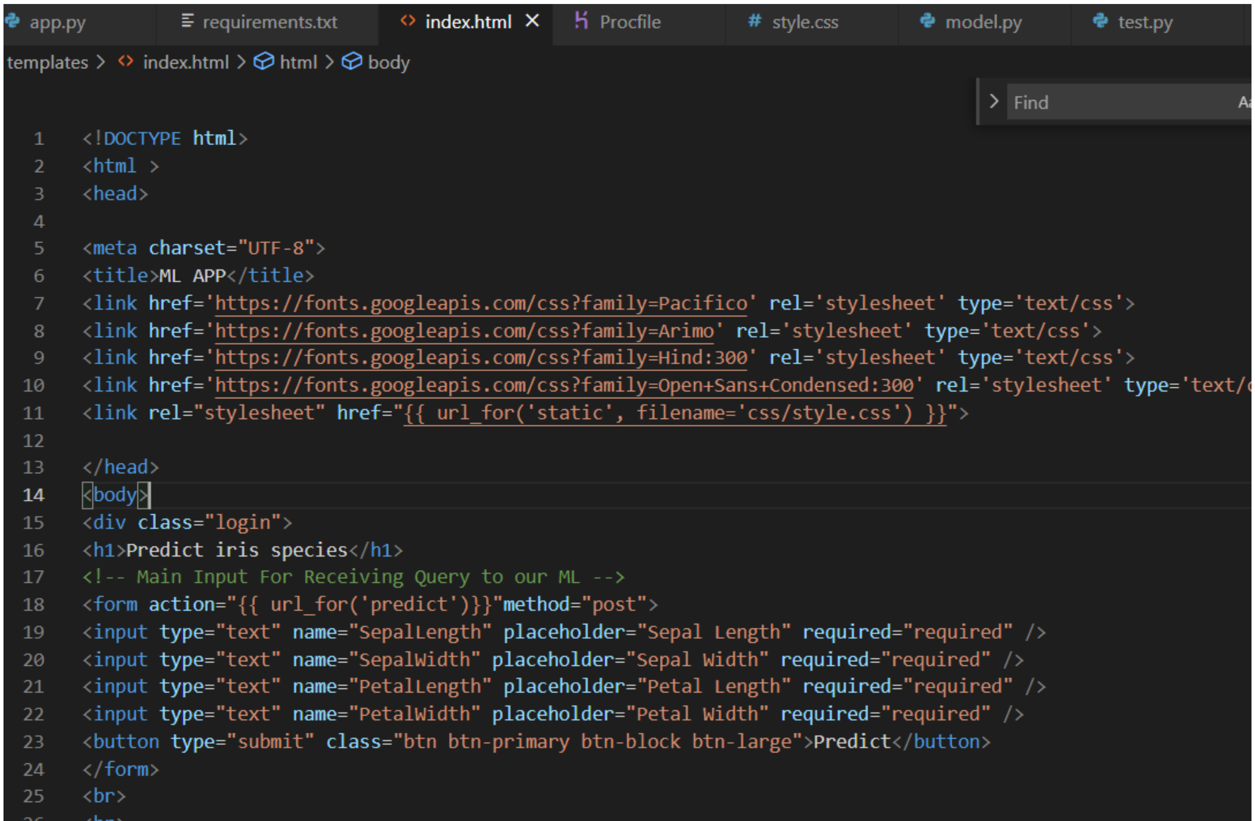
```
#split to test the model
# from sklearn.model_selection import train_test_split

#Wit stratification to balance the output y
# X_train,X_test, y_train, y_test= train_test_split (X,Y, test_size=0.3,random_state=1,stratify=Y)

###Train the model
from sklearn.neighbors import KNeighborsClassifier

model_knn = KNeighborsClassifier(n_neighbors=4,weights='uniform',algorithm='ball_tree', p=1)

# model.fit(X_train, y_train) #Training the model
# #Test the model
# predictions = model.predict(X_test)
# print( classification_report(y_test, predictions) )
# print( accuracy_score(y_test, predictions))

model_knn.fit(X,Y)

# Saving model to disk

pickle.dump(model_knn,open('model.pkl','wb'))

# Loading model to compare the results
model = pickle.load(open('model.pkl','rb'))
print(model.predict([[5.1,3.5,1.4,0.2]]))
```

Flask app:



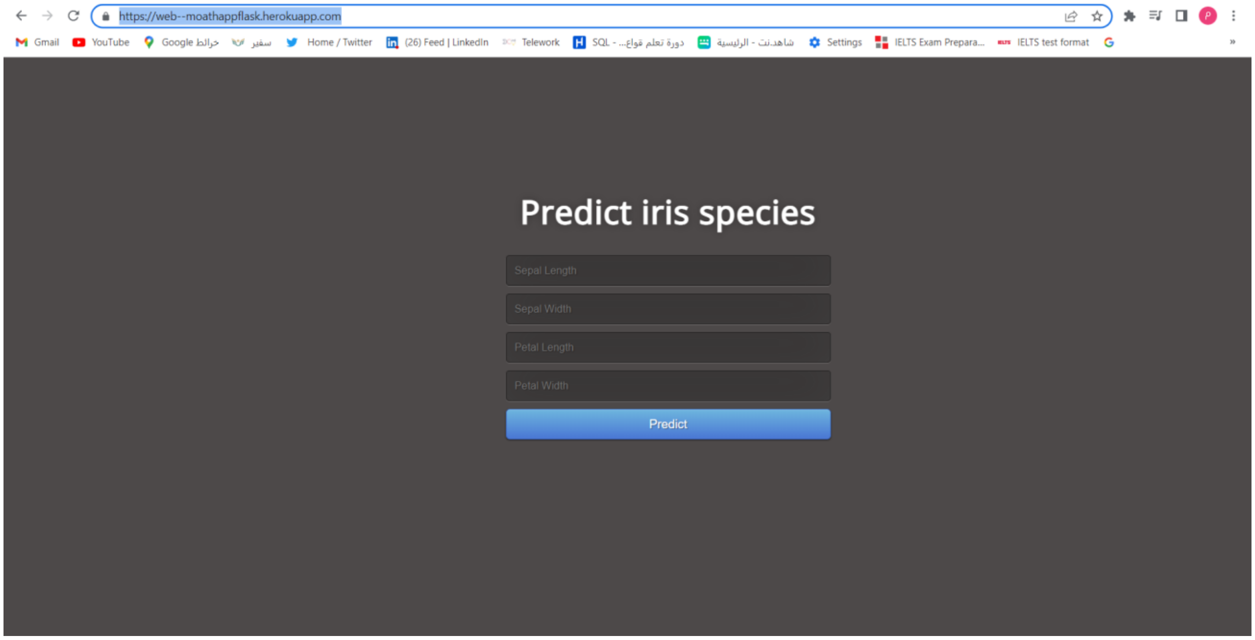
```python

model = pickle.load(open('model.pkl', 'rb'))


app = Flask(__name__)
@app.route('/')
def home():
    return render_template('index.html')

@app.route('/predict',methods=['POST'])
def predict():
    '''
    For rendering results on HTML GUI
    '''
    int_features = [float(x) for x in request.form.values()]

    final_features = [np.array(int_features)]
    prediction = model.predict(final_features)

    output =prediction[0]
    if output ==0:
        output ='Iris-setosa'
    elif output ==1:
        output ='Iris-versicolor'
    elif output ==2:
        output ='Iris-virginica'

    return render_template('index.html', prediction_text='The Flower is {}'.format(output))
```

HTML:



```html
<!DOCTYPE html>
<html >
<head>

<meta charset="UTF-8">
<title>ML APP</title>
<link href='https://fonts.googleapis.com/css?family=Pacifico' rel='stylesheet' type='text/css'>
<link href='https://fonts.googleapis.com/css?family=Arimo' rel='stylesheet' type='text/css'>
<link href='https://fonts.googleapis.com/css?family=Hind:300' rel='stylesheet' type='text/css'>
<link href='https://fonts.googleapis.com/css?family=Open+Sans+Condensed:300' rel='stylesheet' type='text/
<link rel="stylesheet" href="{{ url_for('static', filename='css/style.css') }}">

</head>
<body>
<div class="login">
<h1>Predict iris species</h1>
<!-- Main Input For Receiving Query to our ML -->
<form action="{{ url_for('predict')}}"method="post">
<input type="text" name="SepalLength" placeholder="Sepal Length" required="required" />
<input type="text" name="SepalWidth" placeholder="Sepal Width" required="required" />
<input type="text" name="PetalLength" placeholder="Petal Length" required="required" />
<input type="text" name="PetalWidth" placeholder="Petal Width" required="required" />
<button type="submit" class="btn btn-primary btn-block btn-large">Predict</button>
</form>
<br>
```

final product:
after deploy the project to Heroku


https://web--moathappflask.herokuapp.com
Gmail
YouTube
Google خرائط
سفير
Home / Twitter
(26) Feed | LinkedIn
Telework
SQL - ...دورة تعلم قواع
شاهد.نت - الرئيسية
Settings
IELTS Exam Prepara...
IELTS test format
Predict iris species
Sepal Length
Sepal Width
Petal Length
Petal Width
Predict