Week 4: Deployment on flask

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Submitted to: https://github.com/Shouqqz/DG--Week4.git

1. Choosing a simple data set.
   Our job is to build ML model to predict the salary

	A	B	C	D
1	experience	test_score	interview_score	salary
2	0	8	9	50000
3	0	8	6	45000
4	5	6	7	60000
5	2	10	10	65000
6	7	9	6	70000
7	3	7	10	62000
8	10	7	7	72000
9	11	7	8	80000

2. Saving the model.

   Importing pandas, pickle and csv file

```
import pandas as pd
import pickle

data = pd.read_csv('hiring.csv')
```

Split our data into training and testing datasets

```
X = data.iloc[:, :3]

y = data.iloc[:, -1]
```

```
from sklearn.linear_model import LinearRegression
regressor = LinearRegression()

regressor.fit(X, y)
```

And finally pickle our model

```
pickle_file = open('model.pkl','wb')
pickle.dump(regressor,pickle_file)
```

3. Deployment using Flask.

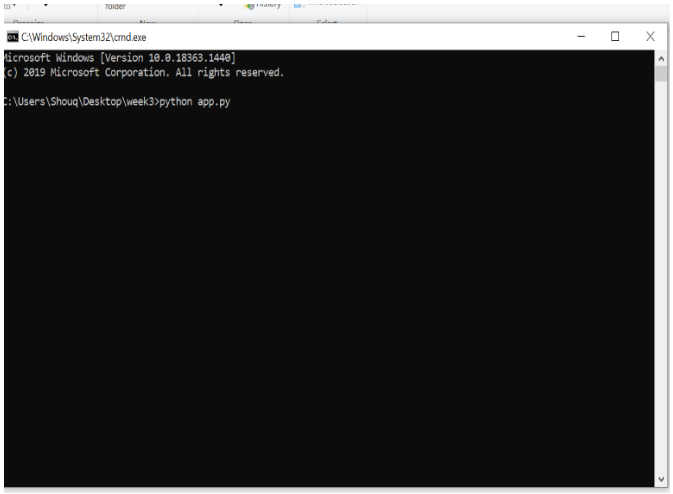
```
import numpy as np
from flask import Flask , request, render_template
import pickle
```

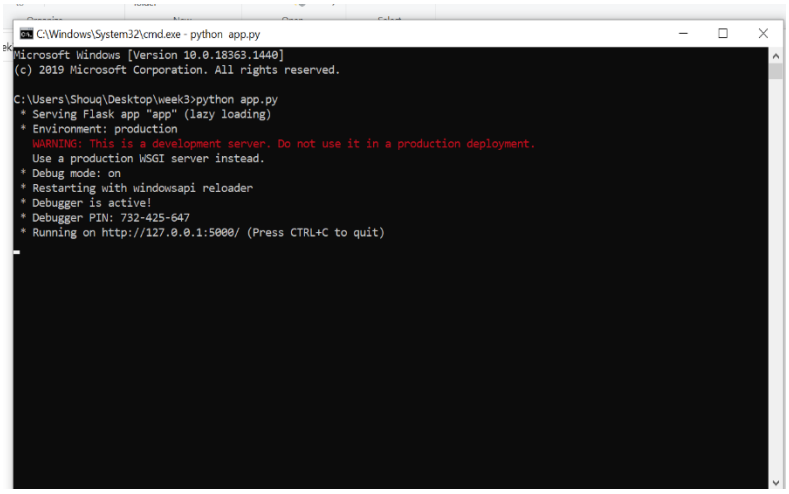
```
app = Flask(__name__)
unpickled_file = open('model.pkl', 'rb')
model=pickle.load(unpickled_file)
```

```
@app.route('/')
def home():
    return render_template('index.html')
```

```
@app.route('/predict',methods=['POST'])
def predict():
    '''
    For rendering results on HTML GUI
    '''
    int_features = [int(x) for x in request.form.values()]
    final_features = [np.array(int_features)]
    prediction = model.predict(final_features)

    output = round(prediction[0], 2)

    return render_template('index.html', prediction_text='Employee Salary should be $ {}'.format(output))


if __name__ == "__main__":
    app.run(port=5000, debug=True)
```

Running app.py in terminal window.





Finally copying the link and paste it in the browser.