Deployment on Flask

Name: Boshra Eisa
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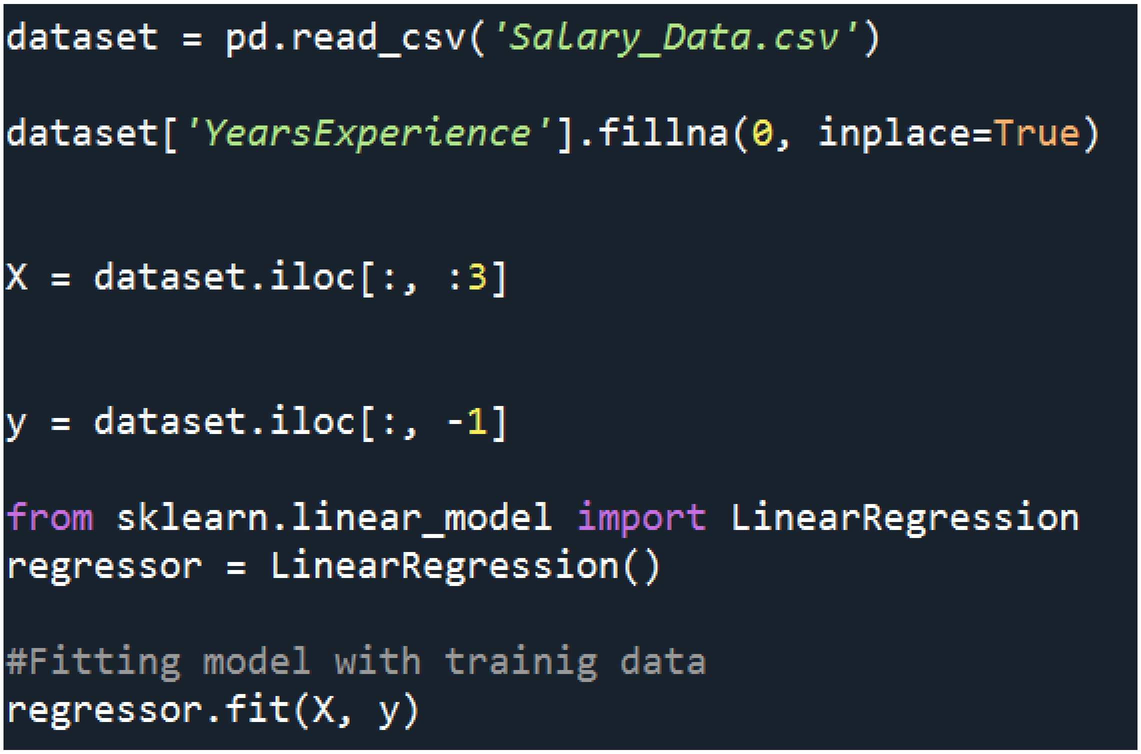
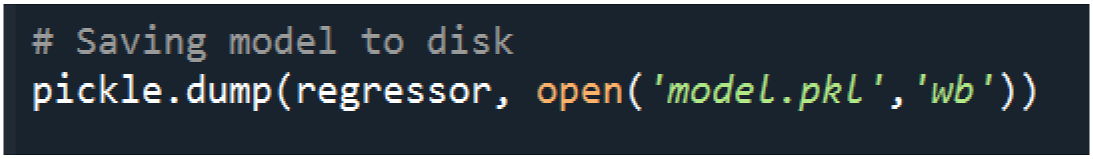
My deployment on flask task was relatively simple. I used a CSV file to predict the salary of an employee based on three factors.
I started off by getting a CSV file containing four columns, Years of Experience, Age, Interview Score and Salary and loaded the CSV file to my IDE to build my model. Even though my data was not big, I try to make it a habit to make sure my data is correct and complete by filling any N/A cells with 0.
Then, I used Linear Regression as showed below.



```
dataset = pd.read_csv('Salary_Data.csv')

dataset['YearsExperience'].fillna(0, inplace=True)


X = dataset.iloc[:, :3]


y = dataset.iloc[:, -1]

from sklearn.linear_model import LinearRegression
regressor = LinearRegression()

#Fitting model with trainig data
regressor.fit(X, y)
```

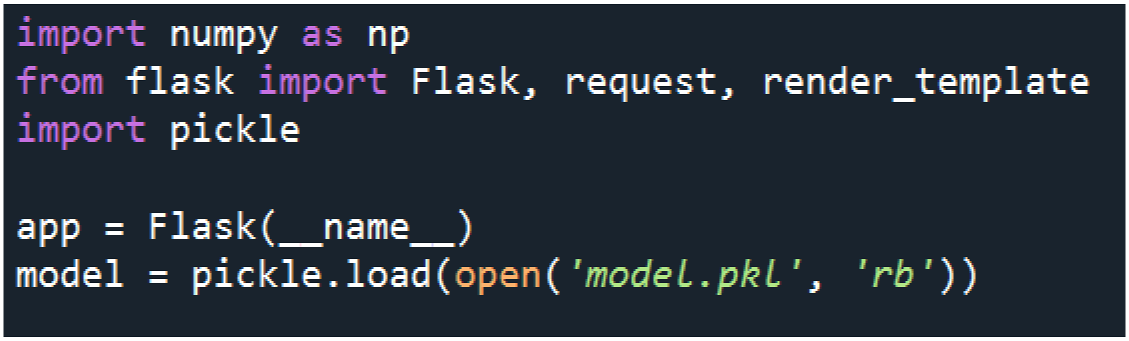
Lastly, I saved the model for later usage.



```
# Saving model to disk
pickle.dump(regressor, open('model.pkl','wb'))
```

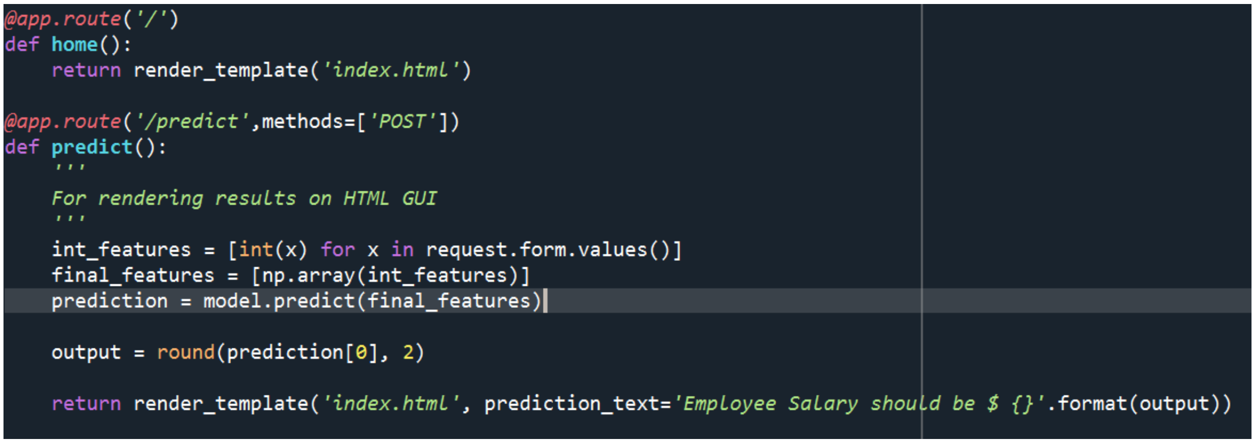
After I was done with the model, it was time to deploy it using Flask.

I imported the libraries necessary for the task and loaded the model.



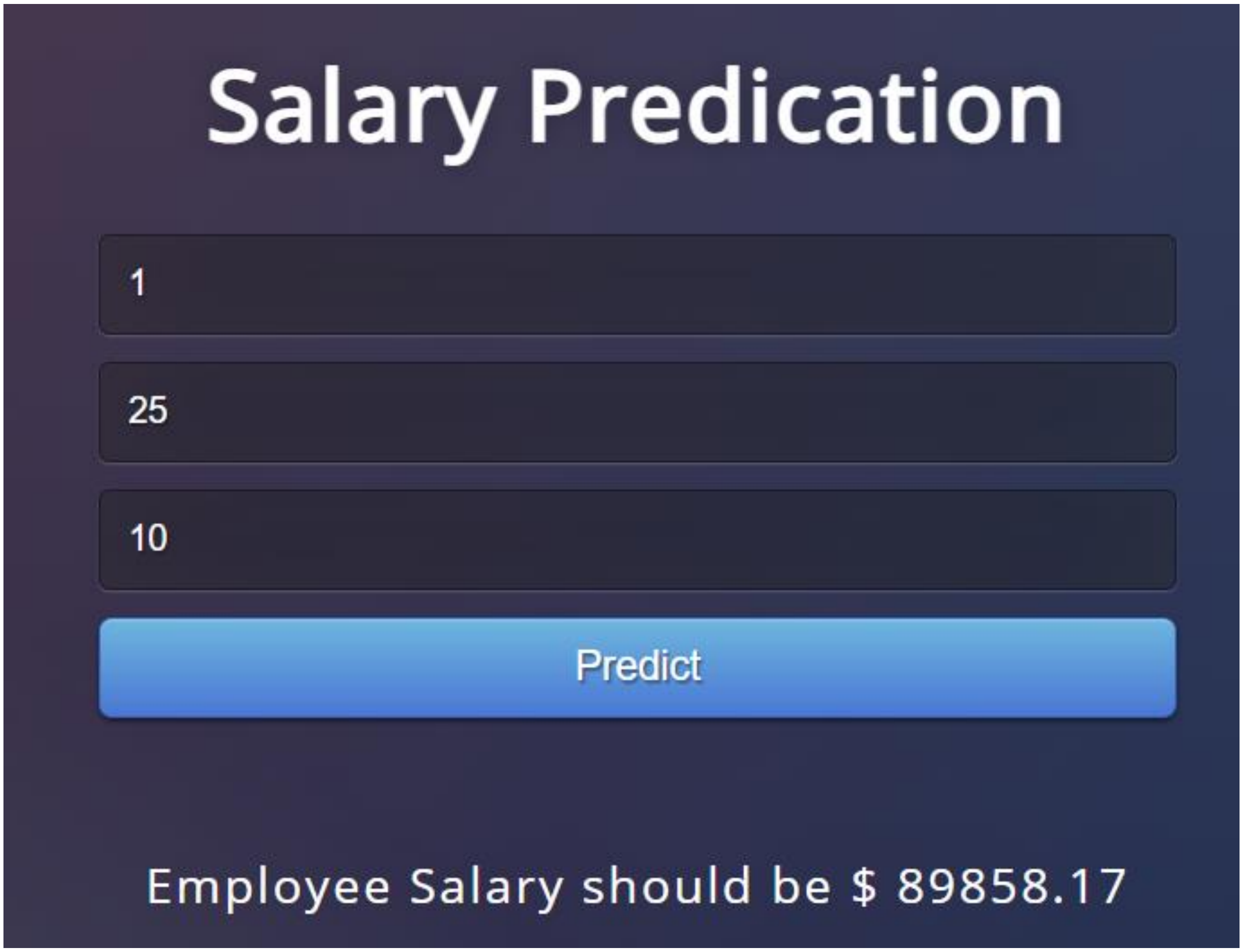
```python
import numpy as np
from flask import Flask, request, render_template
import pickle

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

Then, I created a user interface to display the prediction.
I used NumPy to generate the predictions.



```python
@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))
```

Here’s an example:



Salary Predication

1

25

10

Employee Salary should be $ 89858.17