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Batch No: LISUM16

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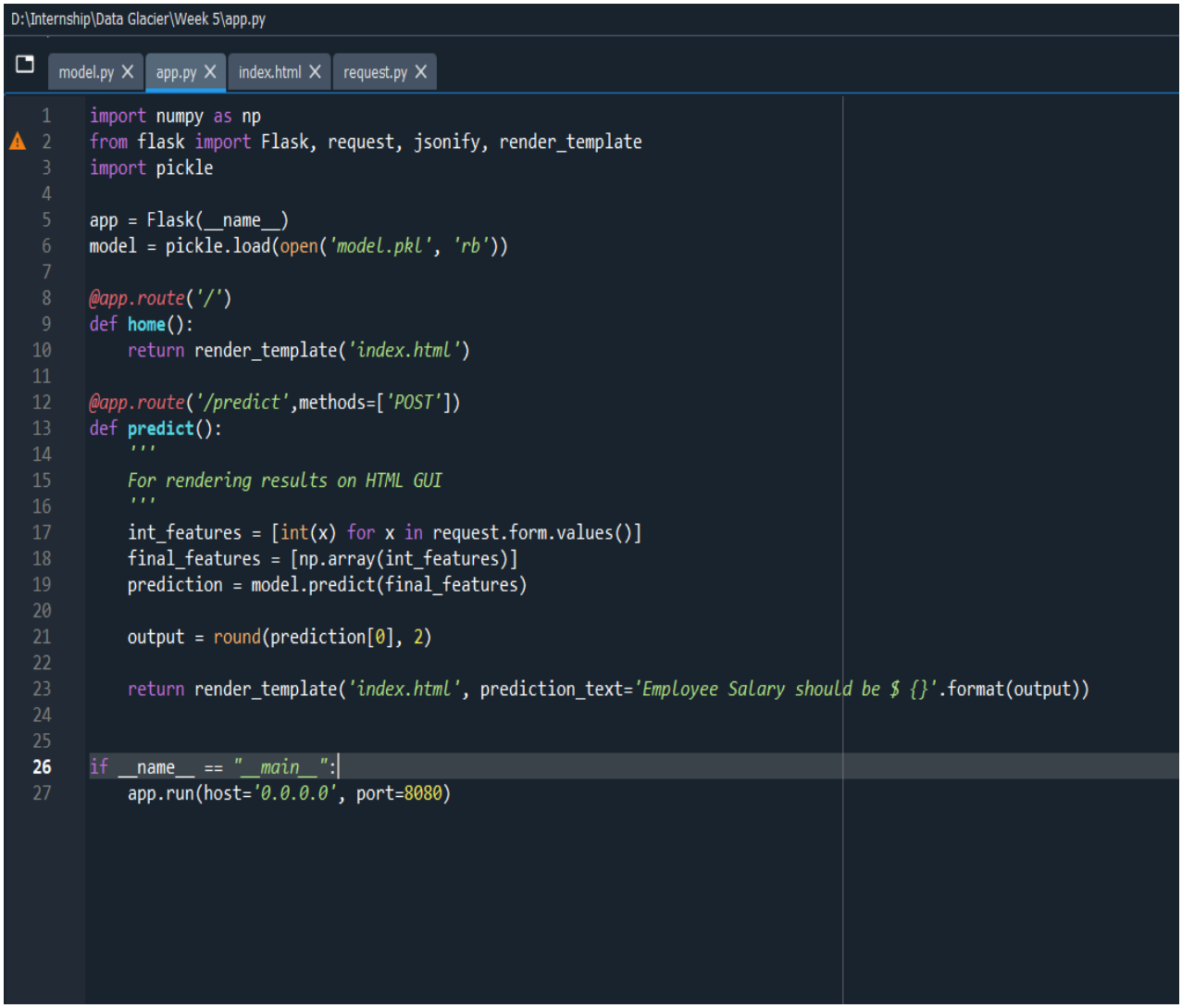
Submitted to: Data Glacier

Title: Flask Deployment on AWS – EC2 Instance (Prediction Salary Analysis)

Salary Prediction Model Deployment on Flask



D:\Internship\Data Glacier\Week 5\model.py

model.py | app.py | index.html | request.py

```python
# Importing the libraries
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
import pickle

dataset = pd.read_csv('https://raw.githubusercontent.com/ShreyaRamachandra/Deploy-machine-learning-model-using-flask/main/hiring.csv')

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

dataset['test_score'].fillna(dataset['test_score'].mean(), inplace=True)

X = dataset.iloc[:, :3]

#Converting words to integer values
def convert_to_int(word):
    word_dict = {'one':1, 'two':2, 'three':3, 'four':4, 'five':5, 'six':6, 'seven':7, 'eight':8,
                 'nine':9, 'ten':10, 'eleven':11, 'twelve':12, 'zero':0, 0: 0}
    return word_dict[word]

X['experience'] = X['experience'].apply(lambda x : convert_to_int(x))

y = dataset.iloc[:, -1]

#Splitting Training and Test Set
#Since we have a very small dataset, we will train our model with all availabe data.

from sklearn.linear_model import LinearRegression
regressor = LinearRegression()

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

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

# Loading model to compare the results
model = pickle.load(open('model.pkl','rb'))
print(model.predict([[2, 9, 6]]))
```

Requirements for Model Deployment

main ▾ Deplomент-of-ML-model-in-AWS-EC2-Instance / requirements.txt

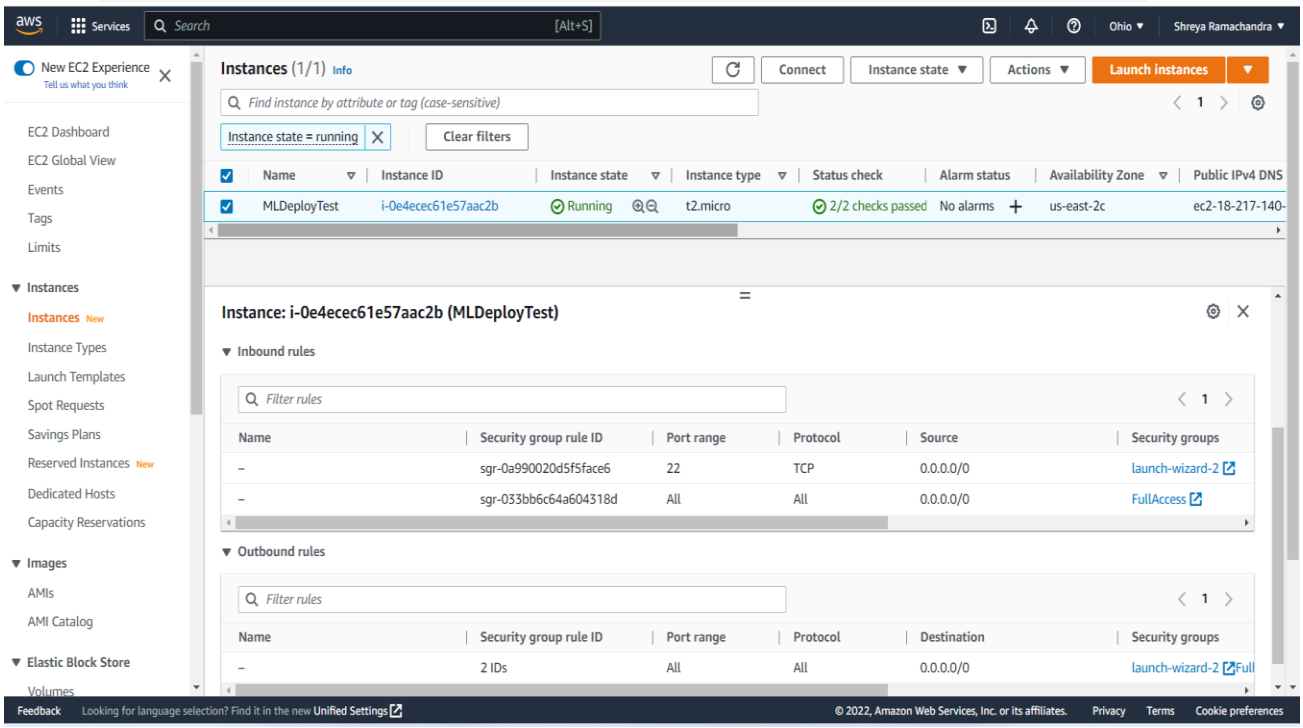
ShreyaRamachandra Create requirements.txt

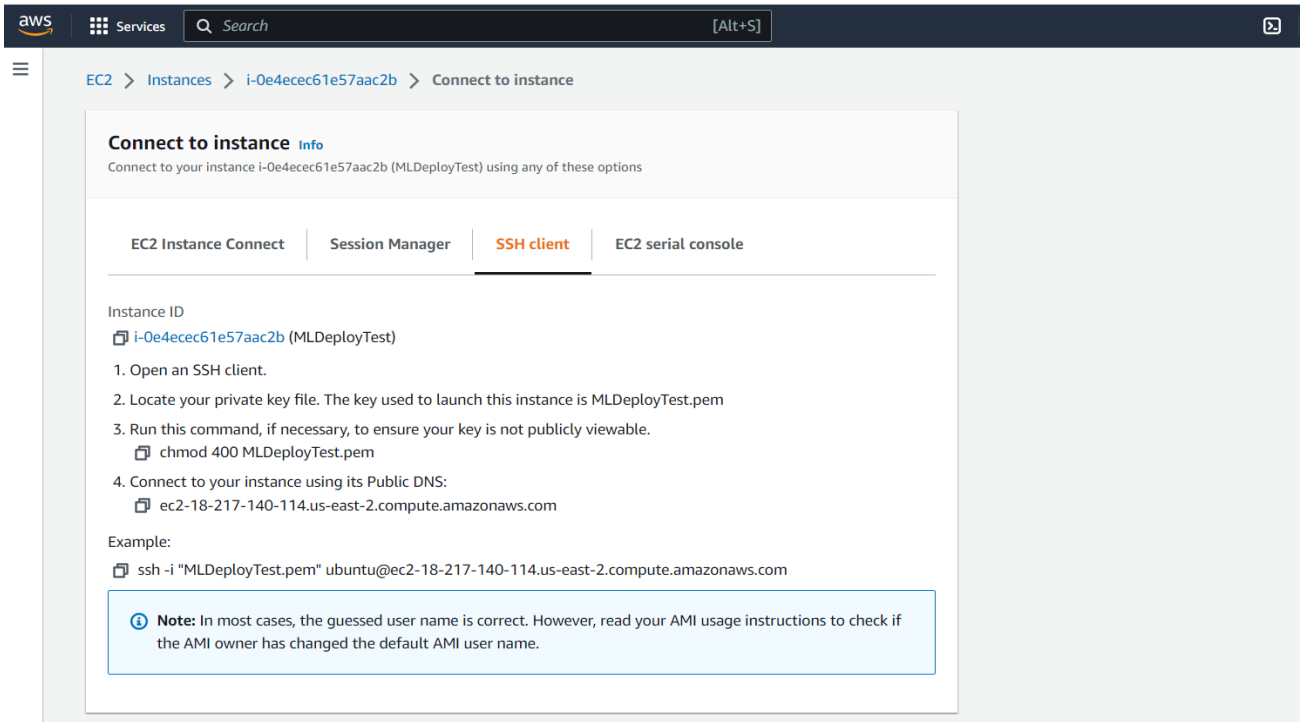
1 contributor

11 lines (11 sloc) | 177 Bytes

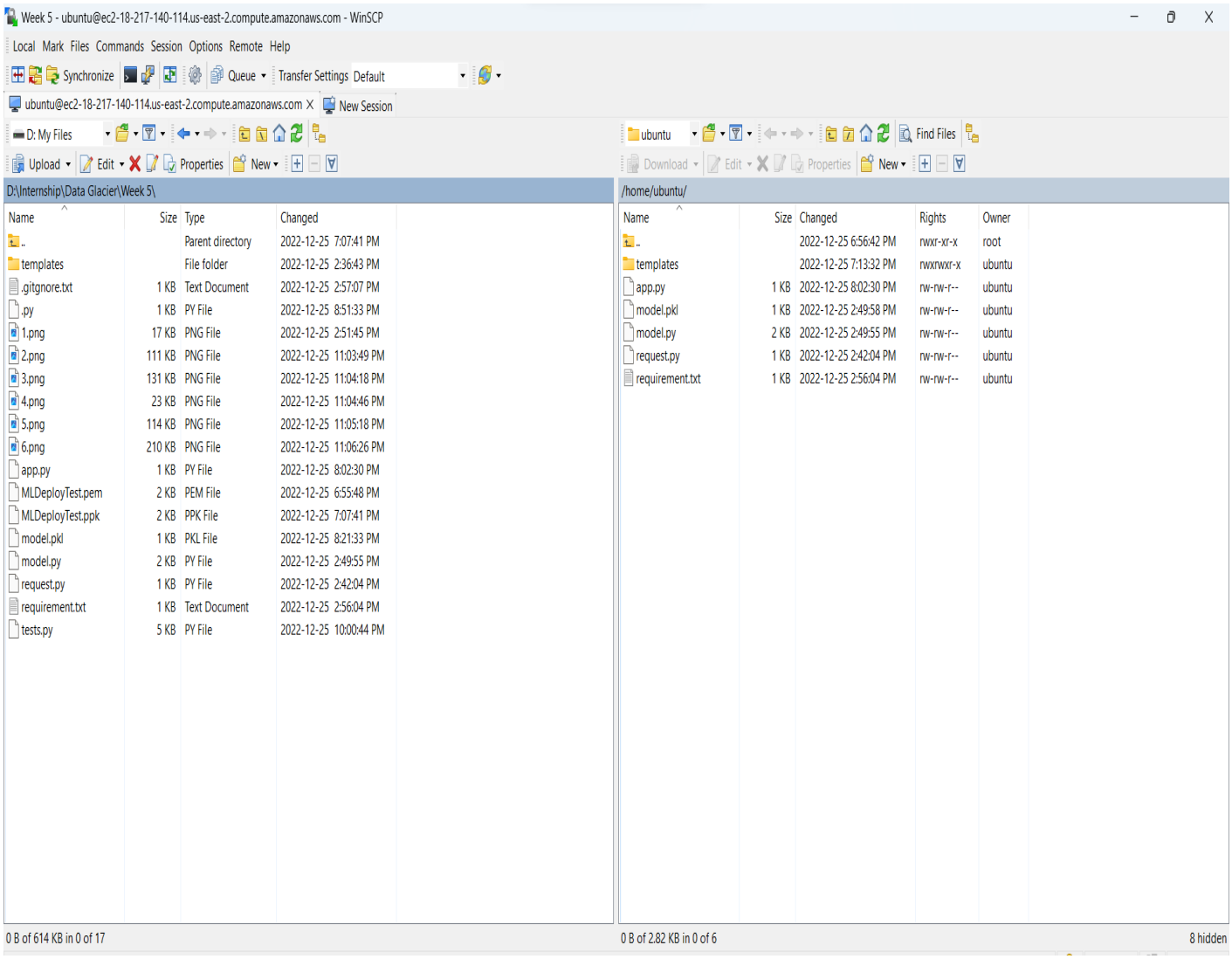
```
1  Flask==1.1.1
2  gunicorn==19.9.0
3  itsdangerous==1.1.0
4  Jinja2==2.10.1
5  MarkupSafe==1.1.1
6  Werkzeug==0.15.5
7  numpy>=1.9.2
8  scipy>=0.15.1
9  scikit-learn>=0.18
10 matplotlib>=1.4.3
11 pandas>=0.19
```

Create AWS account and access EC2 Instance

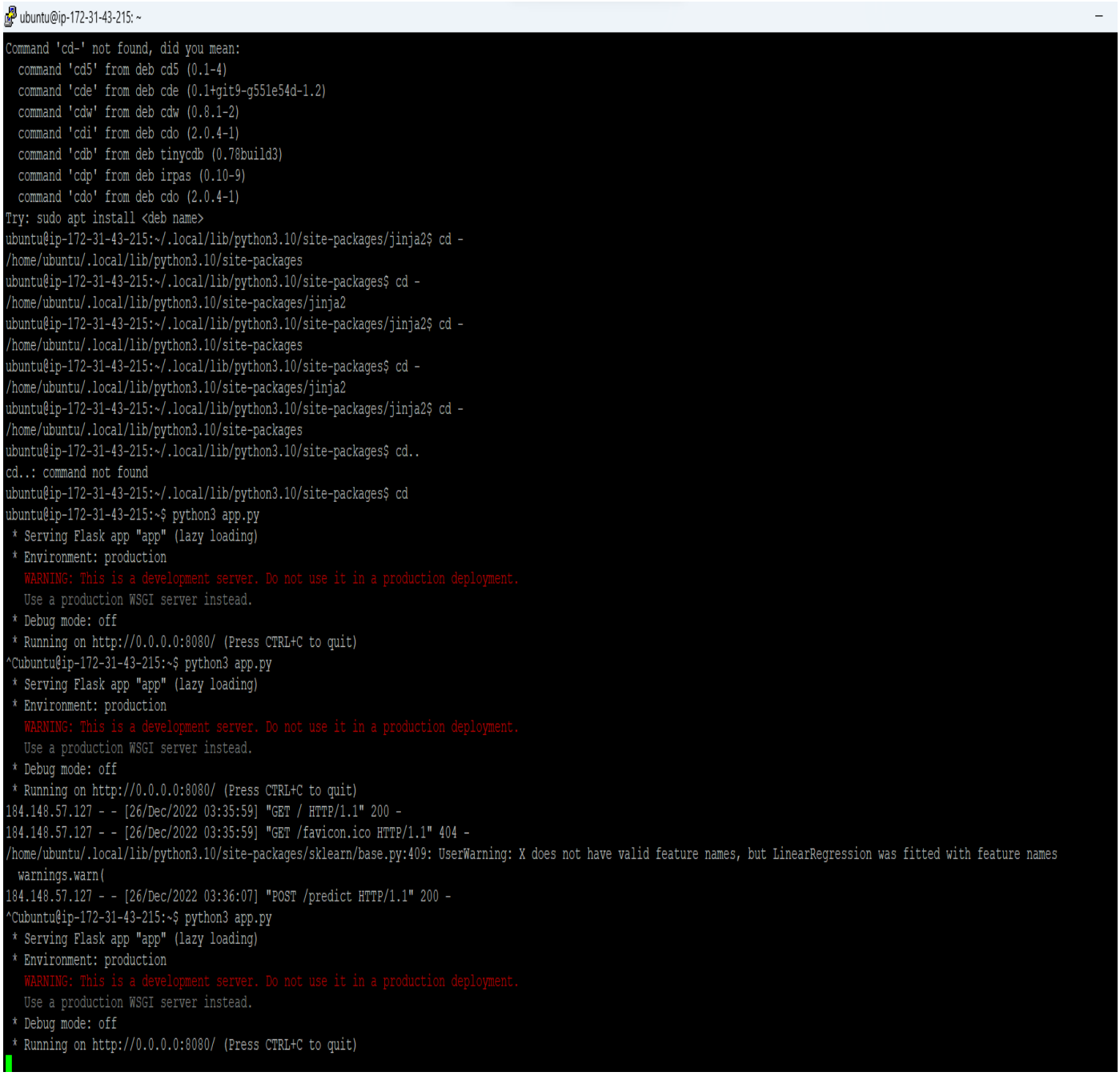




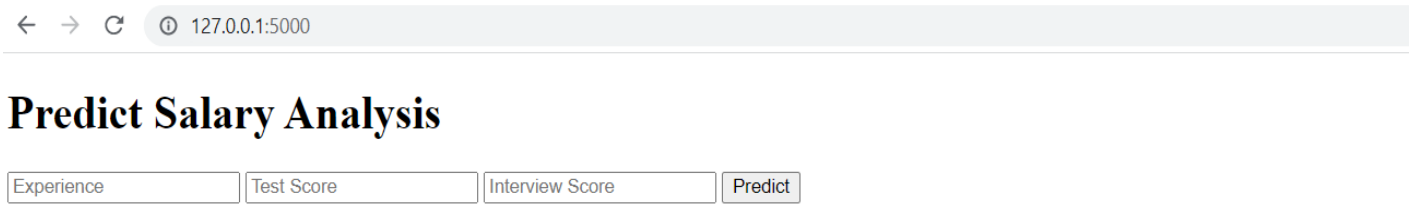
Access the files and update the flask code in WinSCP



Run python app.py in Ubuntu



Result: Predict Salary Analysis Model deployed on Flask code



Predict Salary Analysis Model deployed on AWS cloud