Document
Week4: Deployment on Flask

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Batch code: LISUM14 30 Sep – 30 Dec 2022
Submission Date: 10/23/2022
Submitted to: Data Glacier.

This document contains a snapshot of each step of the deployment

(Deployment Machine Learning on Flask)

ML Model Deployment using Flask

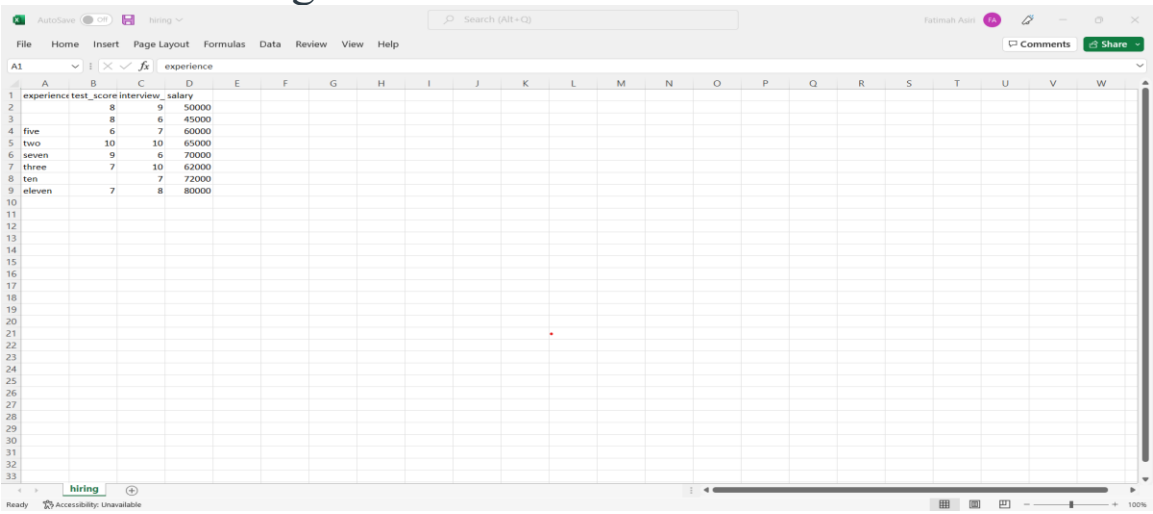
1. Build ML Model.
2. Deploy using Flask.

Files to be created

1. model.py (ML model)
2. model.pkl (Pickle file of ML model)
3. app.py (Flask Application)
4. index.html (inside the folder templates)
5. hiring dataset (data to build ML model)
6. request.py ()

1. Choose a toy dataset.

Select the hiring dataset.



experience	test_score	interview_	salary
	8	9	50000
	8	6	45000
five	6	7	60000
two	10	10	65000
seven	9	6	70000
three	7	10	62000
ten		7	72000
eleven	7	8	80000

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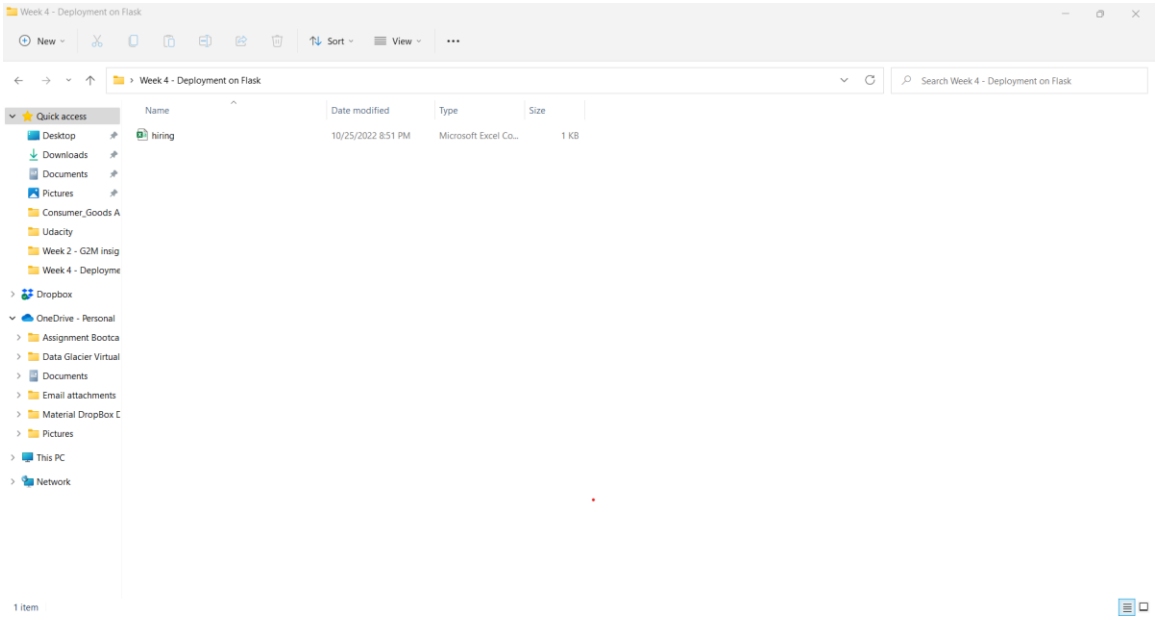
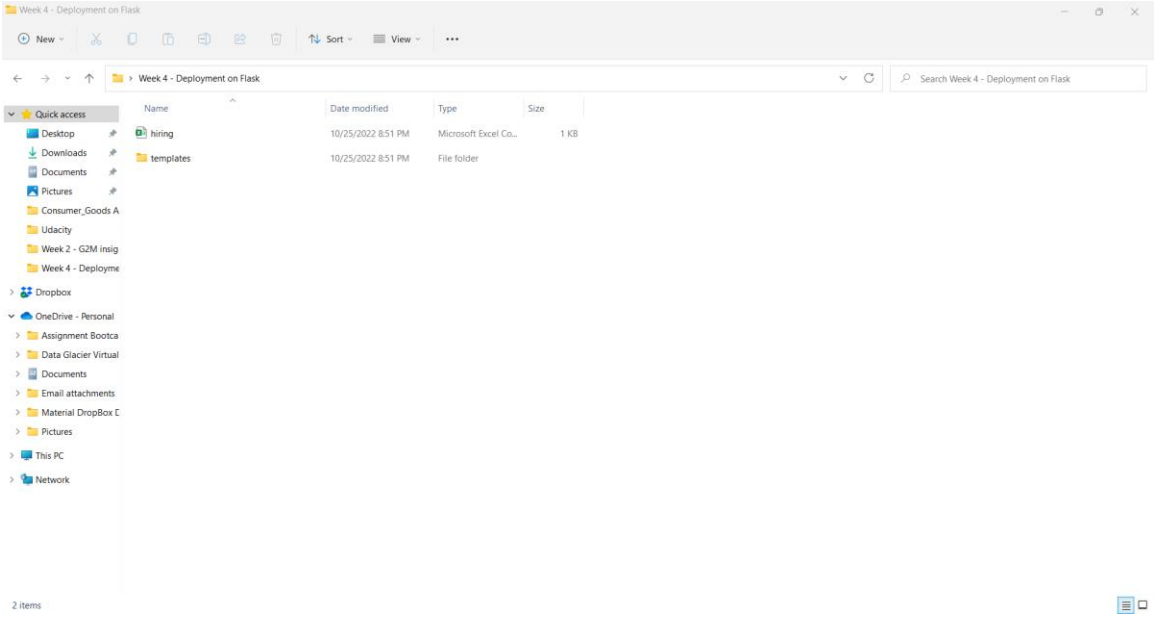
2. **Download csv file inside the folder**



3. Create new folder (templates).



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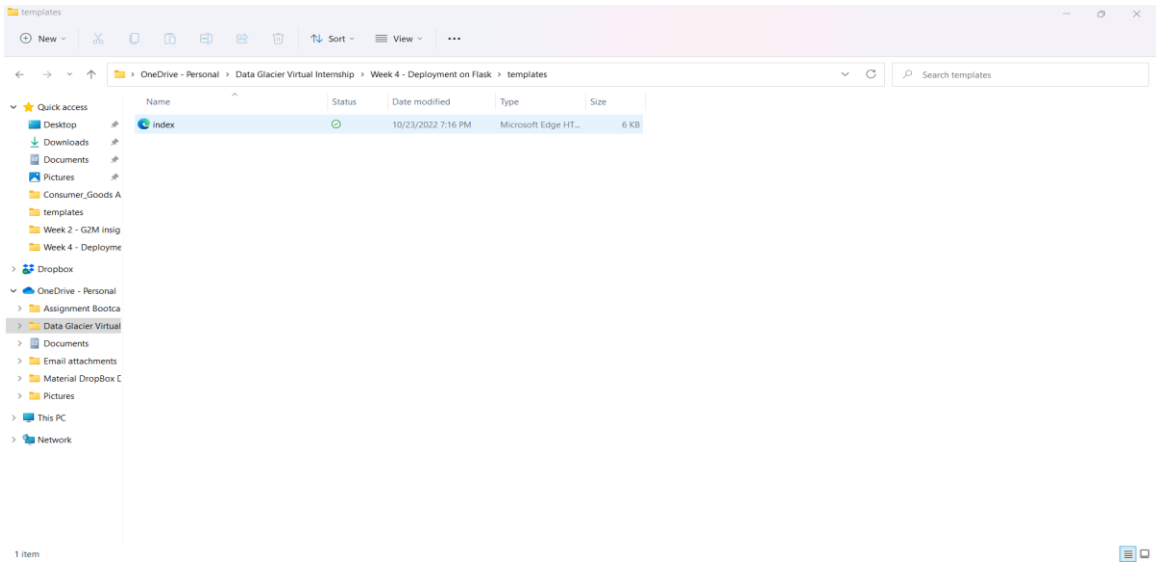
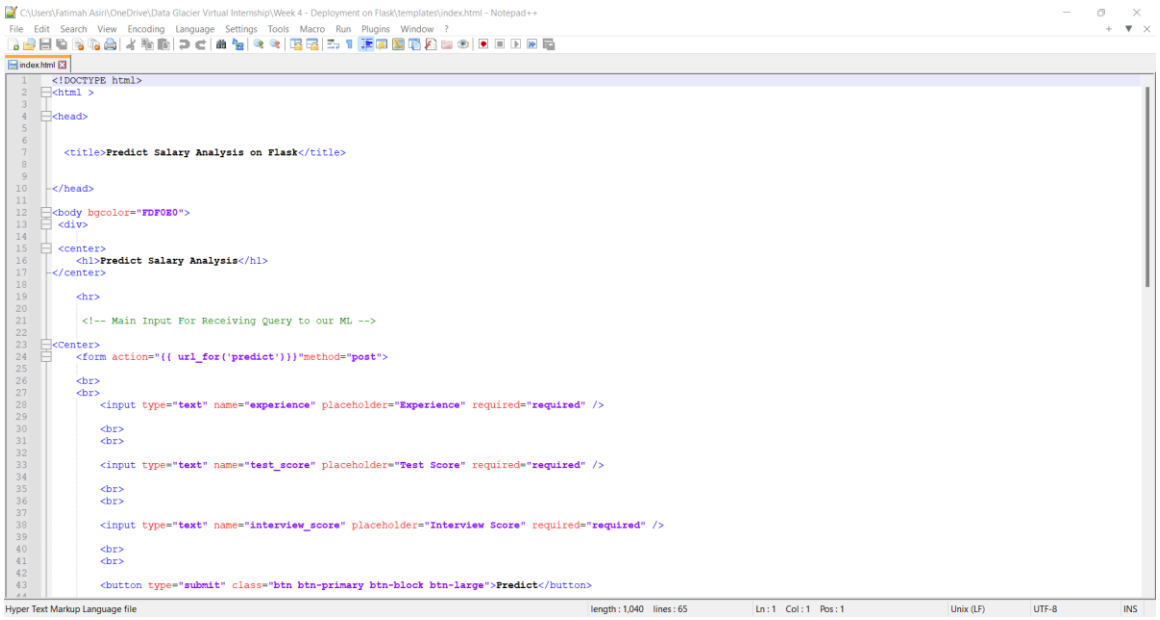
4. Create index.html file in the templates folder.





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5. Create model.py file

```python
# Importing the libraries

import pickle
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
from sklearn.linear_model import LinearRegression

#_____________________________________________________________________#

# Read csv file

dataset = pd.read_csv('hiring.csv')


#_____________________________________________________________________#

# Replace null values experience and test_score columns

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

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


#_____________________________________________________________________#
#Splitting Training and Test Set

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]
```

```python
#_____________________________________________________________________#

# we have a very small dataset.
# So, we will train our model with all availabe data.


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]]))

#_____________________________________________________________________#
```


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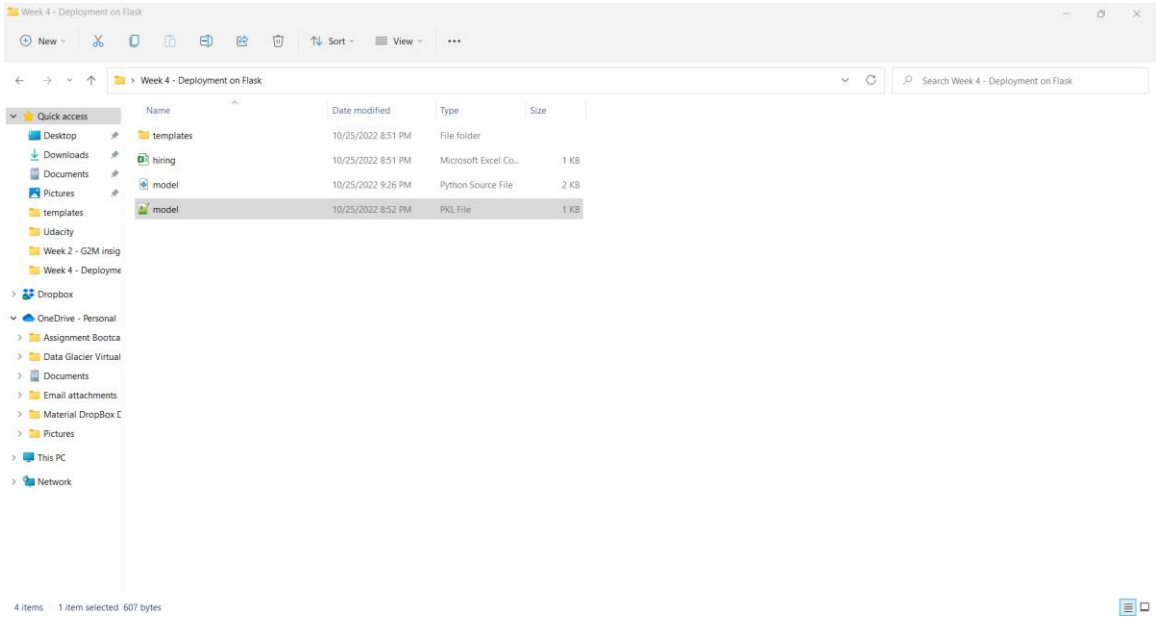
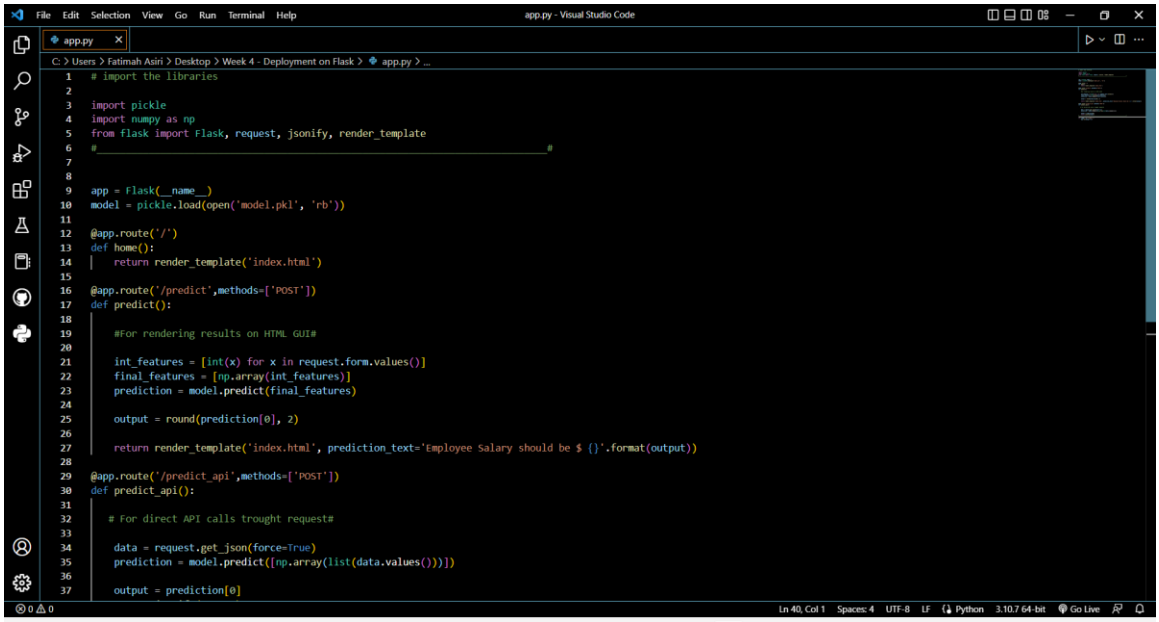
6. Create Pickle file of our model

model.pkl



7. Create app.py files



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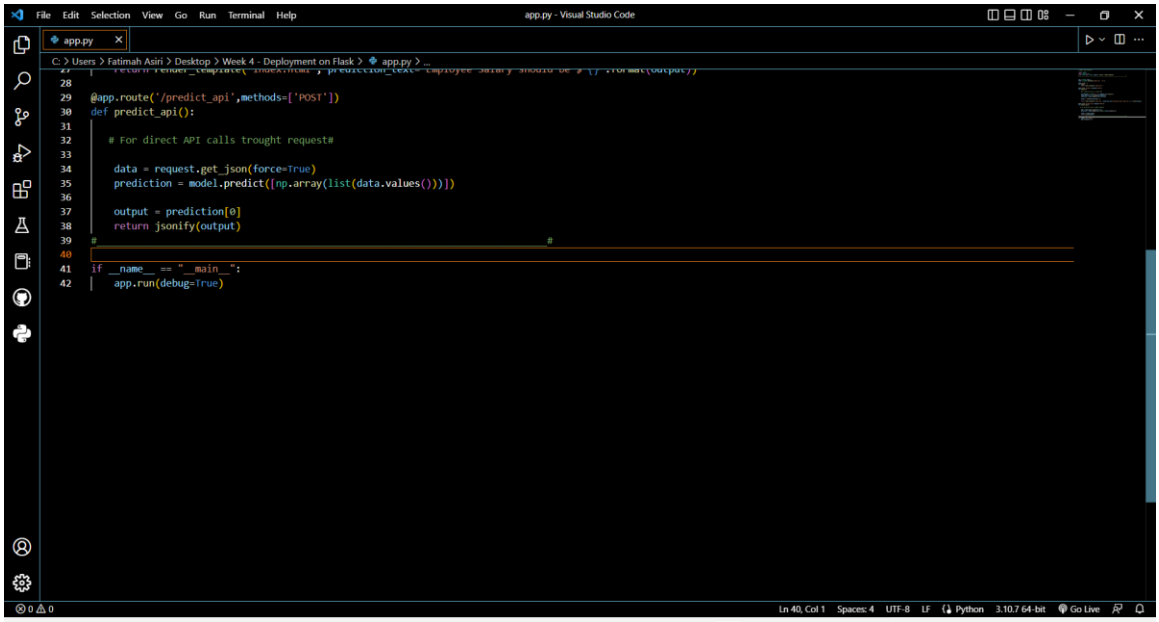
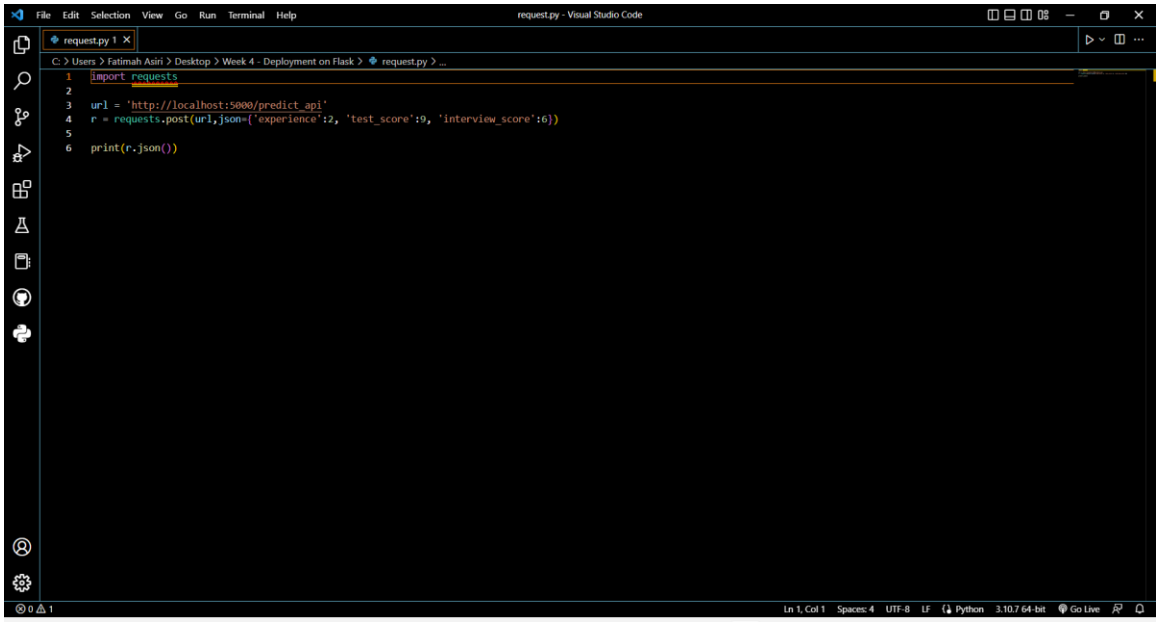


8.Create request.py



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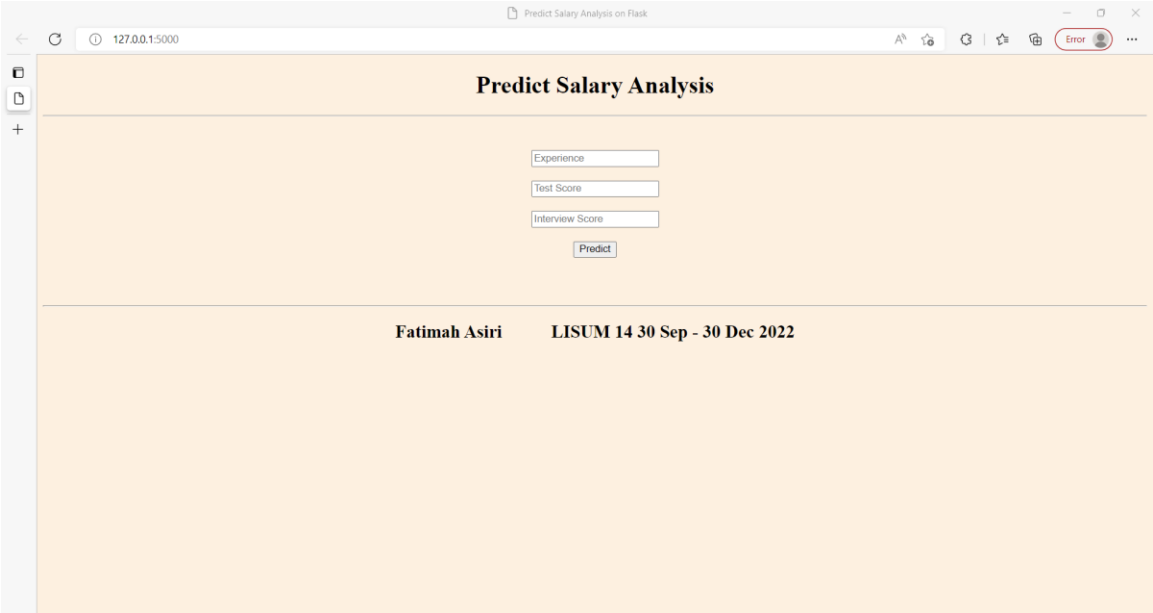
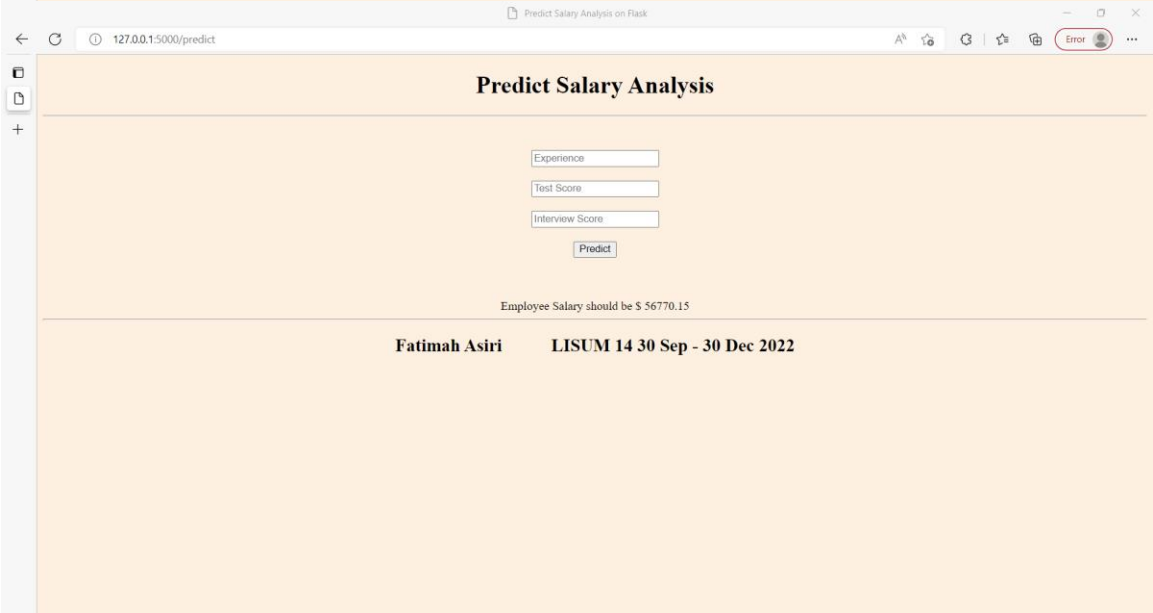
9. Read me file for GitHub
10. The Result of running app





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