

Week5: Deployment using Cloud and API

Name: Sri Harsha, Nimmagadda

Batch Code: LISUM27

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Submitted to: Data Glacier

Data Set up:

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

# Handle missing values
dataset['experience'].fillna(0, inplace=True)
dataset['test_score'].fillna(dataset['test_score'].mean(), inplace=True)

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

Data Training:

```
# Convert words to integer values consistently 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
from sklearn.linear_model import LinearRegression regressor = LinearRegression()

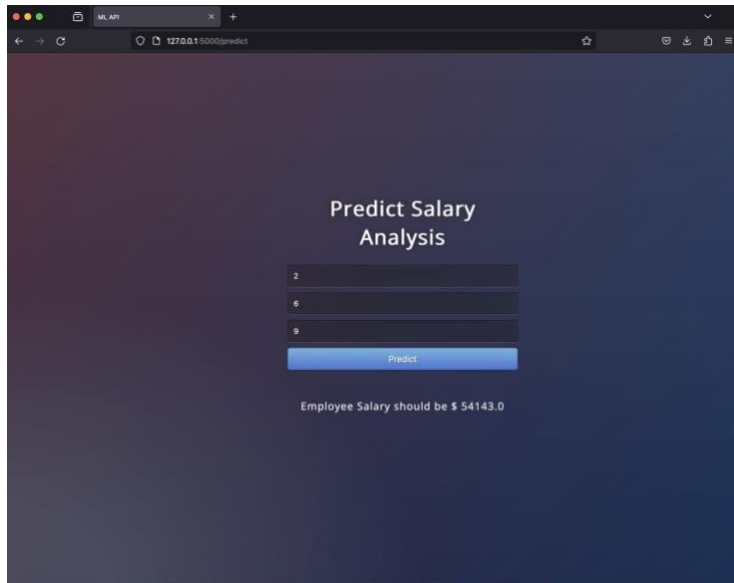
# Fitting model with training data regressor.fit(X, y)
```

Predicting in app.py:

```
def predict_api():
data = request.get_json(force=True)
features = [data['experience'], data['test_score'], data['interview_score']] prediction =
model.predict([np.array(features)])

output = prediction[0] return jsonify(output)
```

Deployed Model:

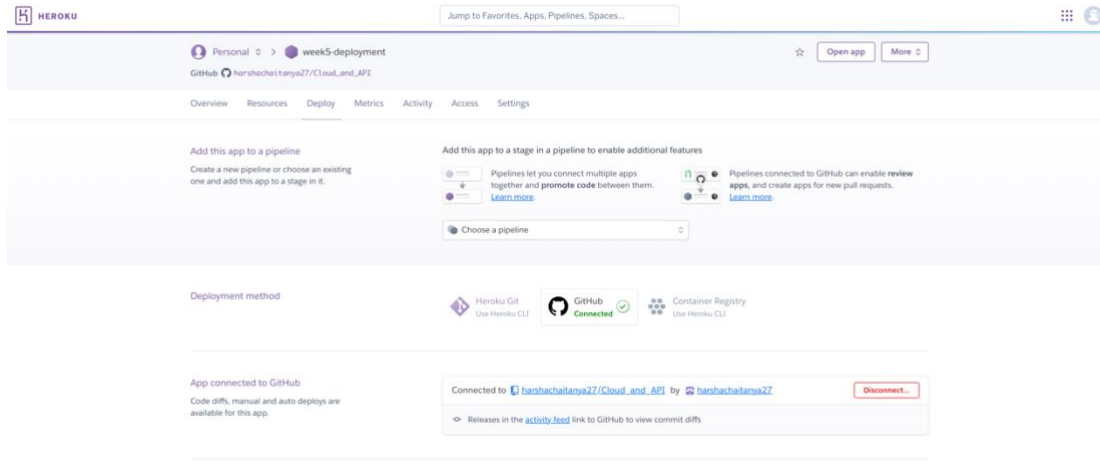


Added the requirements.txt and Procfile to the repo:

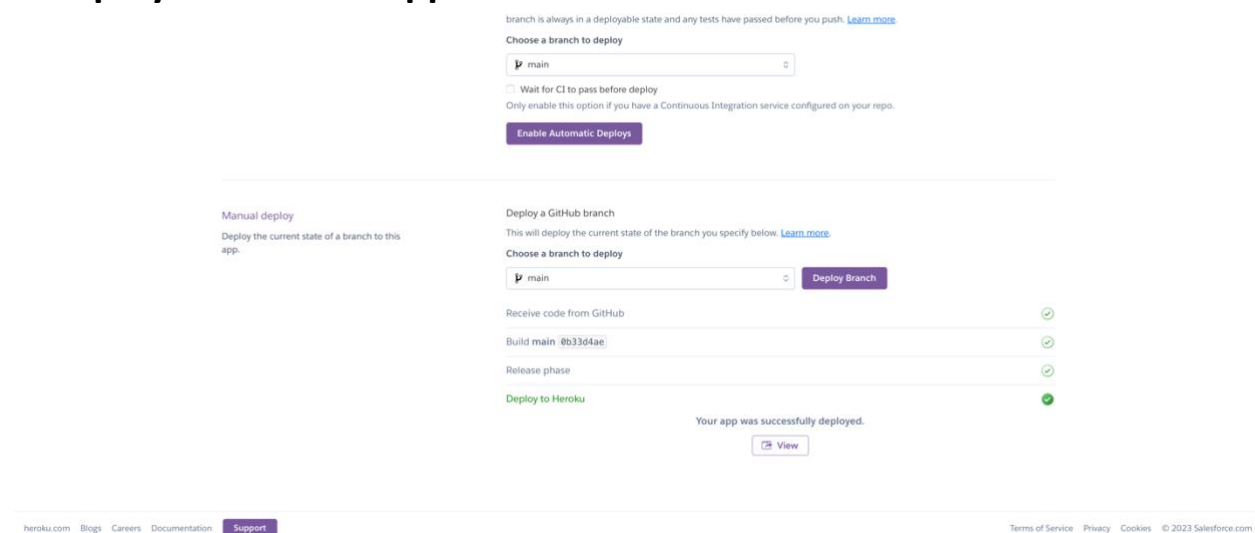
```
requirements.txt
blinker==1.7.0
certifi==2023.11.17
charset-normalizer==3.3.2
click==8.1.7
contourpy==1.2.0
cycler==0.12.1
Flask==3.0.0
fonttools==4.45.1
gunicorn==21.2.0
idna==3.6
itsdangerous==2.1.2
Jinja2==3.1.2
joblib==1.3.2
Keras==3.4.5
MarkupSafe==2.1.3
matplotlib==3.8.2
numpy==1.26.2
packaging==23.2
pandas==2.1.3
Pillow==10.1.0
pyarrow==3.1.1
python-dateutil==2.8.2
pytz==2023.3.post1
requests==2.31.0
scikit-learn==1.3.2
scipy==1.11.4
seaborn==0.12.0
threadpoolctl==3.2.0
tzdata==2023.3
urllib3==2.1.0
Werkzeug==3.0.1
```

```
Procfile
web: gunicorn app:app
```

Connected the github account with Heroku:



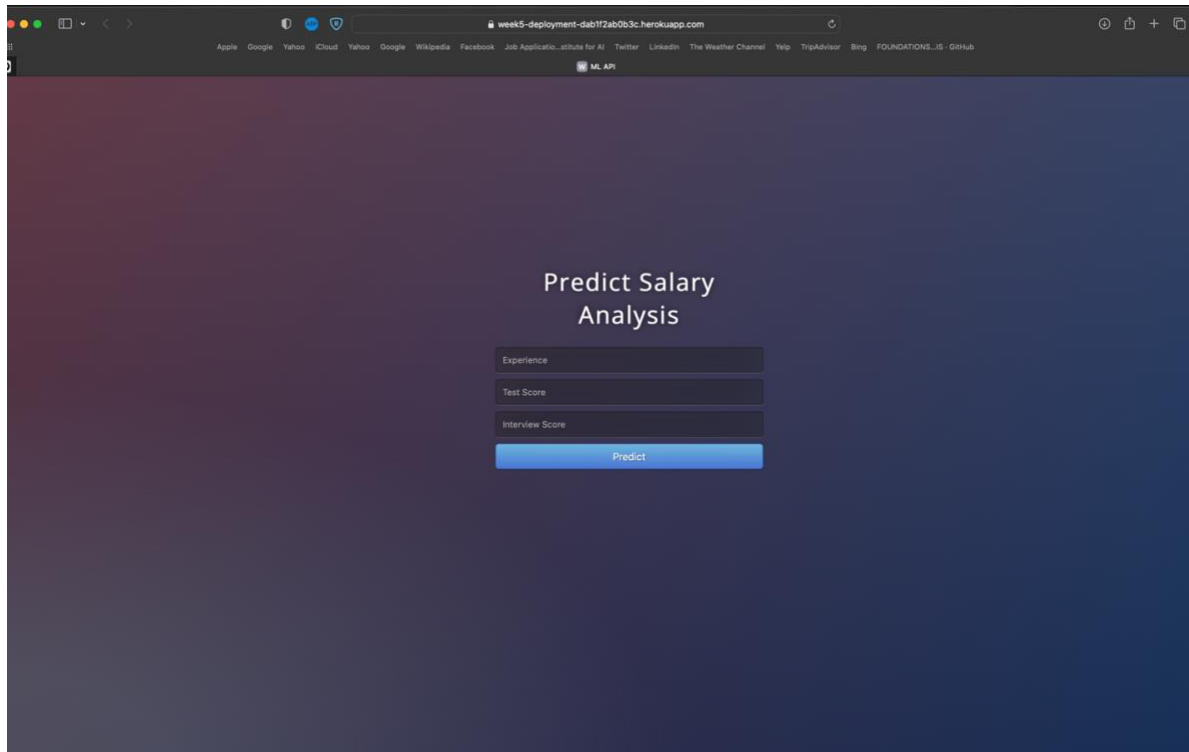
Deployed the flask application on Heroku:



Link of the Heroku hosted app:

<https://week5-deployment-dab1f2ab0b3c.herokuapp.com>

Hosted app:



week5-deployment-dab1f2ab0b3c.herokuapp.com

Apple Google Yahoo iCloud Yahoo Google Wikipedia Facebook Job Application...stitute for AI Twitter LinkedIn The Weather Channel Yelp TripAdvisor Bing FOUNDATIONS...JS GitHub

ML API

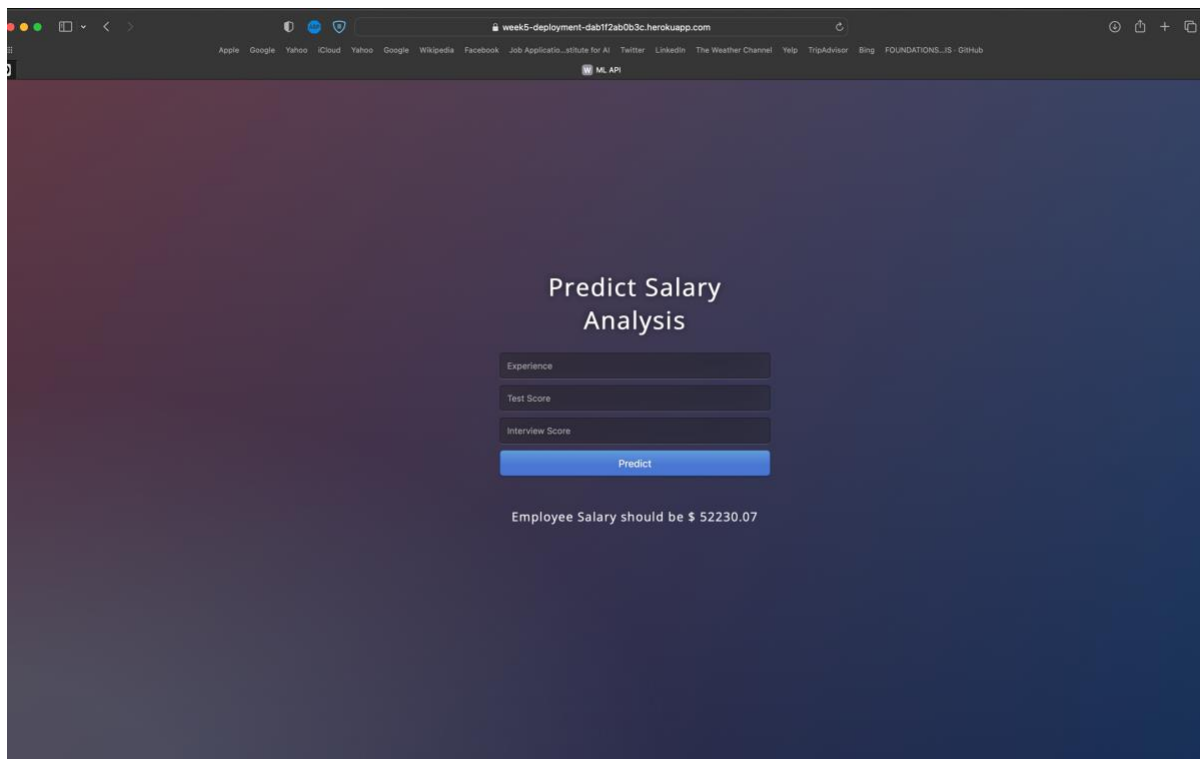
Predict Salary Analysis

Experience

Test Score

Interview Score

Predict



week5-deployment-dab1f2ab0b3c.herokuapp.com

Apple Google Yahoo iCloud Yahoo Google Wikipedia Facebook Job Application...stitute for AI Twitter LinkedIn The Weather Channel Yelp TripAdvisor Bing FOUNDATIONS...JS GitHub

ML API

Predict Salary Analysis

Experience

Test Score

Interview Score

Predict

Employee Salary should be \$ 52230.07

