Data Glacier

Your Deep Learning Partner

Week #4 Deliverables

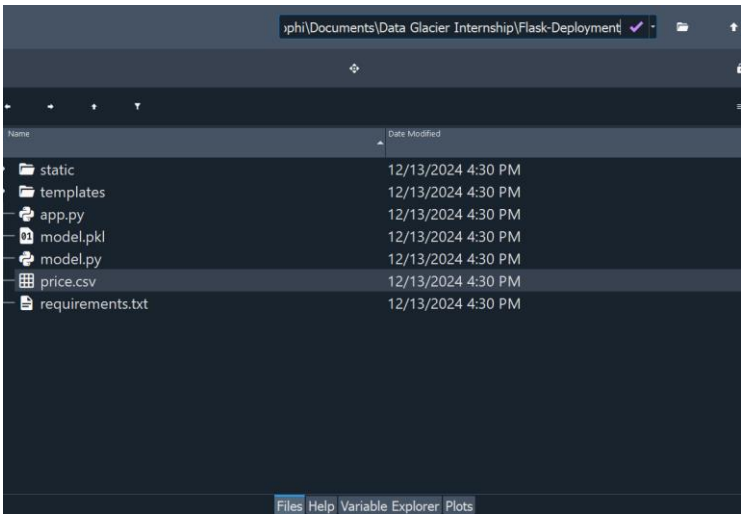
Name: Model Deployment on Flask
Report date: 09/28/24
Internship Batch: LISUM37
Version:1.0
Data intake by: Sophonie Sidrac
Data intake reviewer: Sophonie Sidrac
Data storage location: GitHub

Github Repo link:

https://github.com/1Sophani/DataGlacier-Internship/tree/main/Week%204

Steps for deployment:

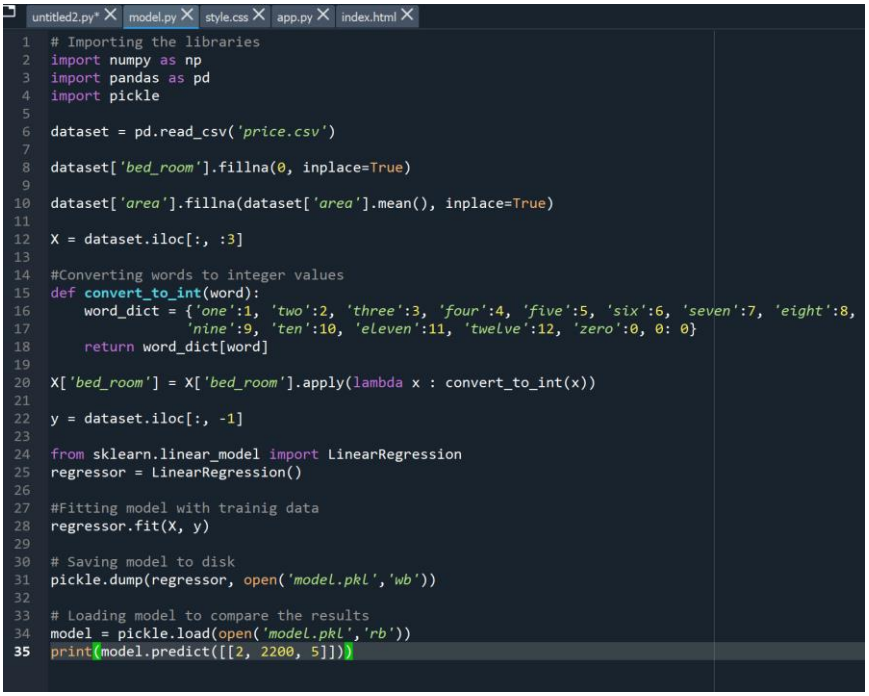
1.



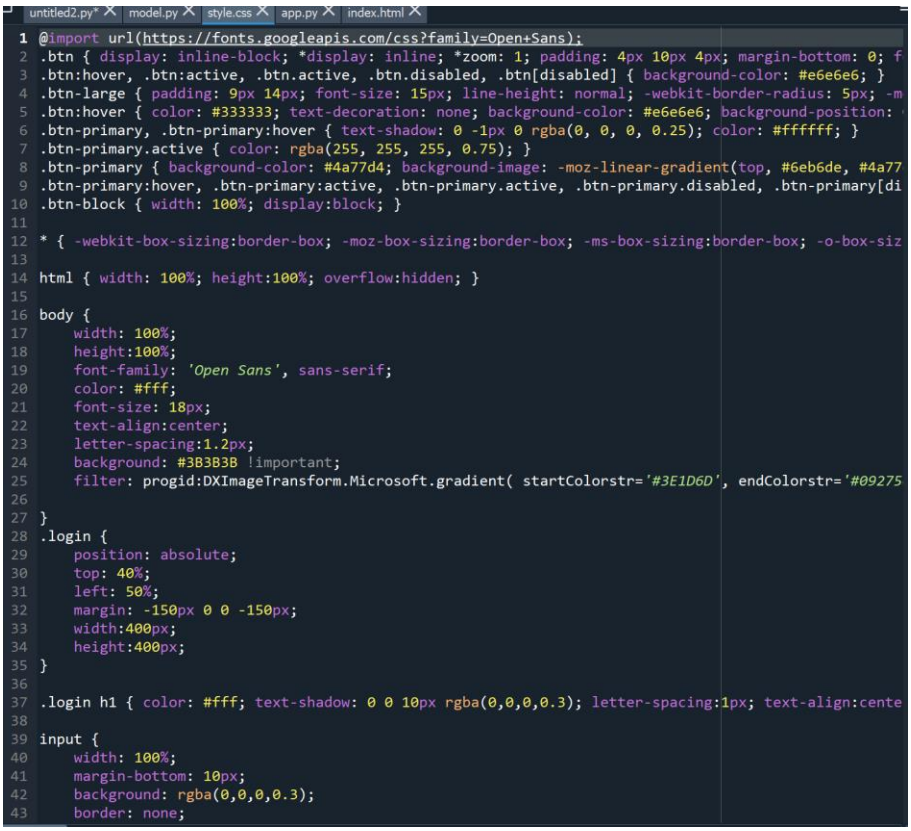
2.


untitled2.py*
model.py
style.css
app.py
index.html
-*- coding: utf-8 -*-
"""
Created on Fri Dec 13 19:55:51 2024
@author: sophi
"""
from flask import Flask
app = Flask(__name__)
@app.route('/') #http://www.google.com/
def home():
return "Hello, world!"
app.run(port=5000)

3.

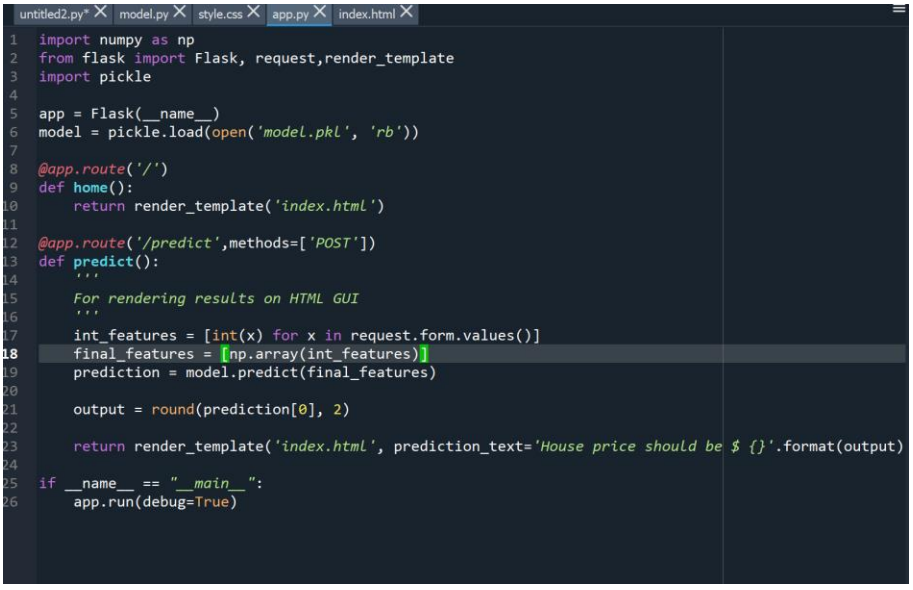

untitled2.py*
model.py
style.css
app.py
index.html
# Importing the libraries
import numpy as np
import pandas as pd
import pickle
dataset = pd.read_csv('price.csv')
dataset['bed_room'].fillna(0, inplace=True)
dataset['area'].fillna(dataset['area'].mean(), inplace=True)
X = dataset.iloc[:, :3]
#Converting 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['bed_room'] = X['bed_room'].apply(lambda x : convert_to_int(x))
y = dataset.iloc[:, -1]
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, 2200, 5]]))

4.



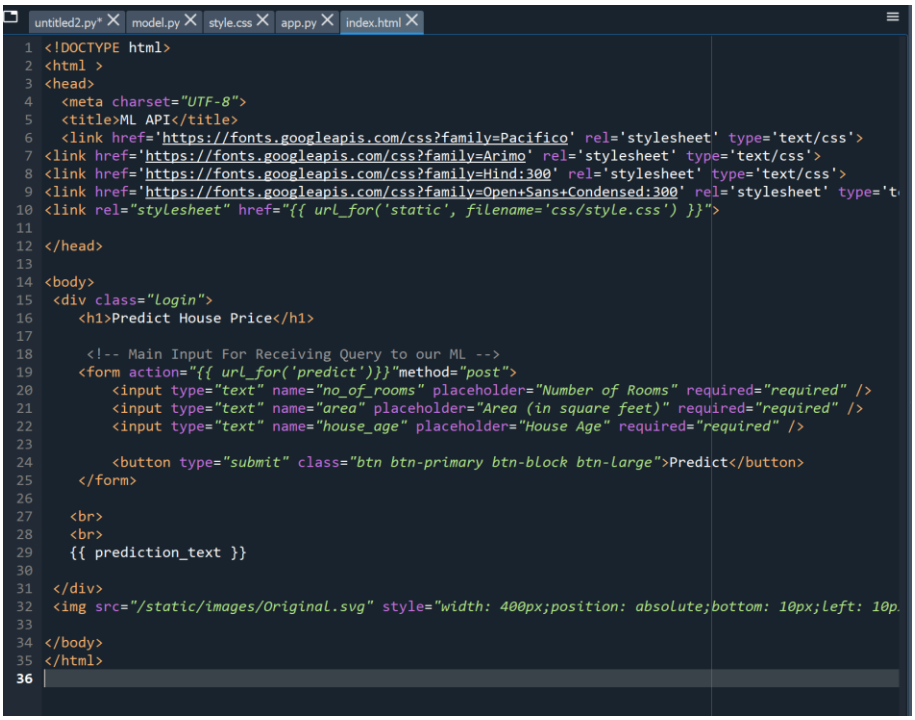
```
@import url(https://fonts.googleapis.com/css?family=Open+Sans);
.btn { display: inline-block; *display: inline; *zoom: 1; padding: 4px 10px 4px; margin-bottom: 0; f
.btn:hover, .btn:active, .btn.active, .btn.disabled, .btn[disabled] { background-color: #e6e6e6; }
.btn-large { padding: 9px 14px; font-size: 15px; line-height: normal; -webkit-border-radius: 5px; -m
.btn:hover { color: #333333; text-decoration: none; background-color: #e6e6e6; background-position:
.btn-primary, .btn-primary:hover { text-shadow: 0 -1px 0 rgba(0, 0, 0, 0.25); color: #ffffff; }
.btn-primary.active { color: rgba(255, 255, 255, 0.75); }
.btn-primary { background-color: #4a77d4; background-image: -moz-linear-gradient(top, #6eb6de, #4a77
.btn-primary:hover, .btn-primary:active, .btn-primary.active, .btn-primary.disabled, .btn-primary[di
.btn-block { width: 100%; display:block; }

* { -webkit-box-sizing:border-box; -moz-box-sizing:border-box; -ms-box-sizing:border-box; -o-box-siz

html { width: 100%; height:100%; overflow:hidden; }

body {
    width: 100%;
    height:100%;
    font-family: 'Open Sans', sans-serif;
    color: #fff;
    font-size: 18px;
    text-align:center;
    letter-spacing:1.2px;
    background: #3B3B3B !important;
    filter: progid:DXImageTransform.Microsoft.gradient( startColorstr='#3E1D6D', endColorstr='#09275

}
.login {
    position: absolute;
    top: 40%;
    left: 50%;
    margin: -150px 0 0 -150px;
    width:400px;
    height:400px;
}

.login h1 { color: #fff; text-shadow: 0 0 10px rgba(0,0,0,0.3); letter-spacing:1px; text-align:cente

input {
    width: 100%;
    margin-bottom: 10px;
    background: rgba(0,0,0,0.3);
    border: none;
```

5.



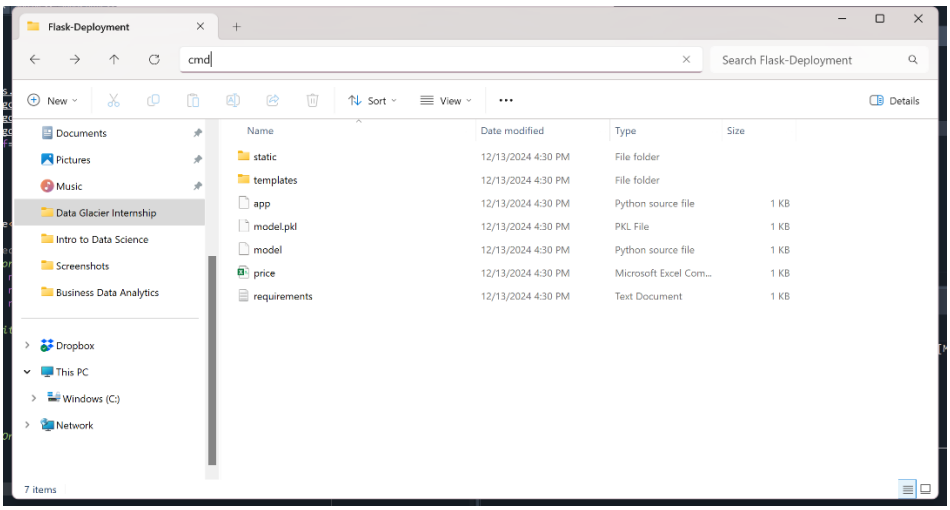
```
import numpy as np
from flask import Flask, request,render_template
import pickle

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

@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='House price should be $ {}'.format(output)

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

6.

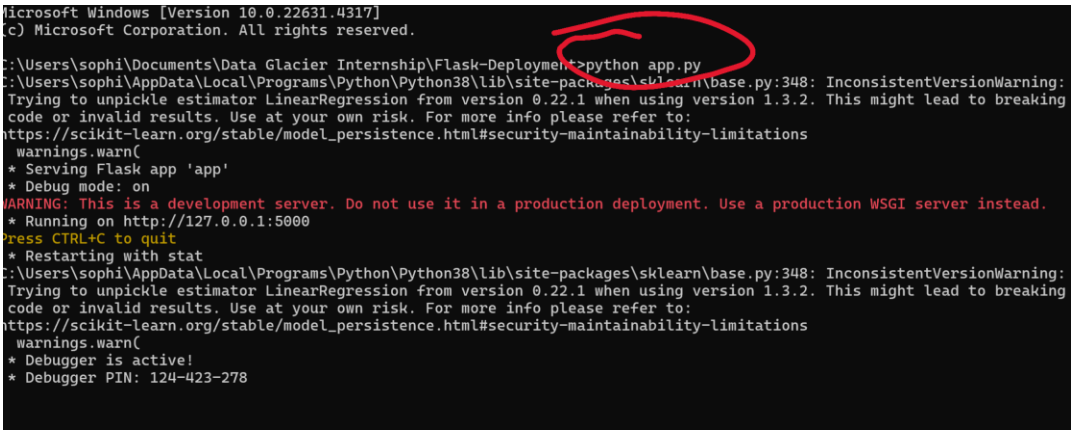


```
<!DOCTYPE html>
<html >
<head>
  <meta charset="UTF-8">
  <title>ML API</title>
  <link href='https://fonts.googleapis.com/css?family=Pacifico' rel='stylesheet' type='text/css'>
<link href='https://fonts.googleapis.com/css?family=Arimo' rel='stylesheet' type='text/css'>
<link href='https://fonts.googleapis.com/css?family=Hind:300' rel='stylesheet' type='text/css'>
<link href='https://fonts.googleapis.com/css?family=Open+Sans+Condensed:300' rel='stylesheet' type='t
<link rel="stylesheet" href="{{ url_for('static', filename='css/style.css') }}">

</head>

<body>
 <div class="login">
    <h1>Predict House Price</h1>

     <!-- Main Input For Receiving Query to our ML -->
    <form action="{{ url_for('predict')}}"method="post">
        <input type="text" name="no_of_rooms" placeholder="Number of Rooms" required="required" />
        <input type="text" name="area" placeholder="Area (in square feet)" required="required" />
        <input type="text" name="house_age" placeholder="House Age" required="required" />

        <button type="submit" class="btn btn-primary btn-block btn-large">Predict</button>
    </form>

   <br>
   <br>
   {{ prediction_text }}

 </div>
 <img src="/static/images/Original.svg" style="width: 400px;position: absolute;bottom: 10px;left: 10p
</body>
</html>
```

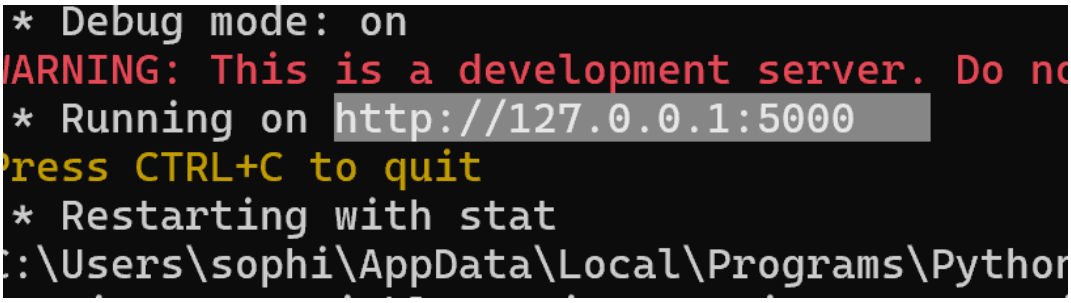
7.

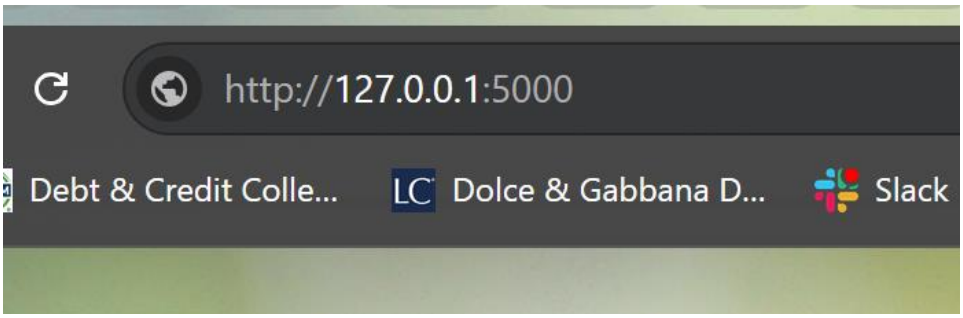


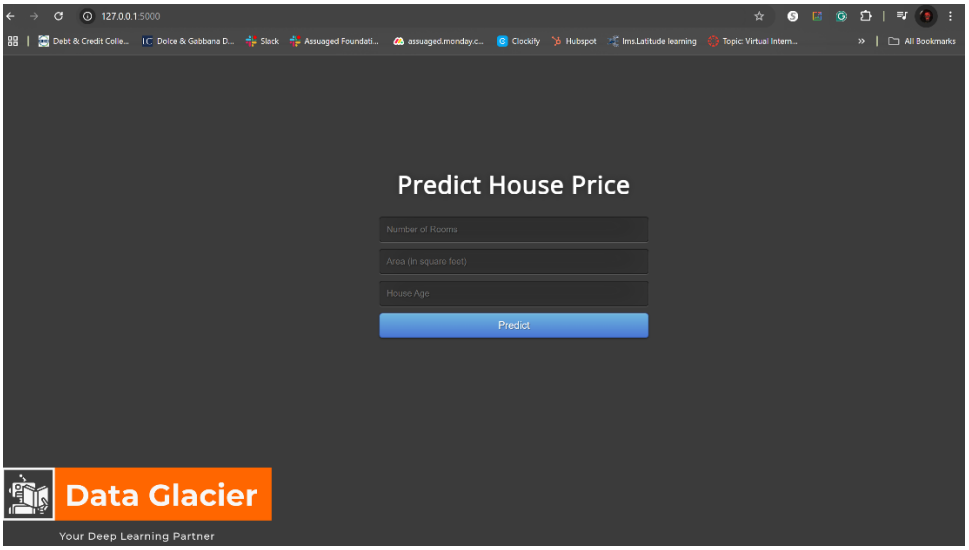
8.



```
Microsoft Windows [Version 10.0.22631.4317]
(c) Microsoft Corporation. All rights reserved.

C:\Users\sophi\Documents\Data Glacier Internship\Flask-Deployment>python app.py
C:\Users\sophi\AppData\Local\Programs\Python\Python38\lib\site-packages\sklearn\base.py:348: InconsistentVersionWarning:
Trying to unpickle estimator LinearRegression from version 0.22.1 when using version 1.3.2. This might lead to breaking
code or invalid results. Use at your own risk. For more info please refer to:
https://scikit-learn.org/stable/model_persistence.html#security-maintainability-limitations
  warnings.warn(
 * Serving Flask app 'app'
 * Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
 * Restarting with stat
C:\Users\sophi\AppData\Local\Programs\Python\Python38\lib\site-packages\sklearn\base.py:348: InconsistentVersionWarning:
Trying to unpickle estimator LinearRegression from version 0.22.1 when using version 1.3.2. This might lead to breaking
code or invalid results. Use at your own risk. For more info please refer to:
https://scikit-learn.org/stable/model_persistence.html#security-maintainability-limitations
  warnings.warn(
 * Debugger is active!
 * Debugger PIN: 124-423-278
```

9. 
* Debug mode: on
ARNING: This is a development server. Do nc
* Running on http://127.0.0.1:5000
ress CTRL+C to quit
* Restarting with stat
:\Users\sophi\AppData\Local\Programs\Python

10. 
http://127.0.0.1:5000
Debt & Credit Colle...
Dolce & Gabbana D...
Slack

11. 
Predict House Price
Number of Rooms
Area (in square feet)
House Age
Predict
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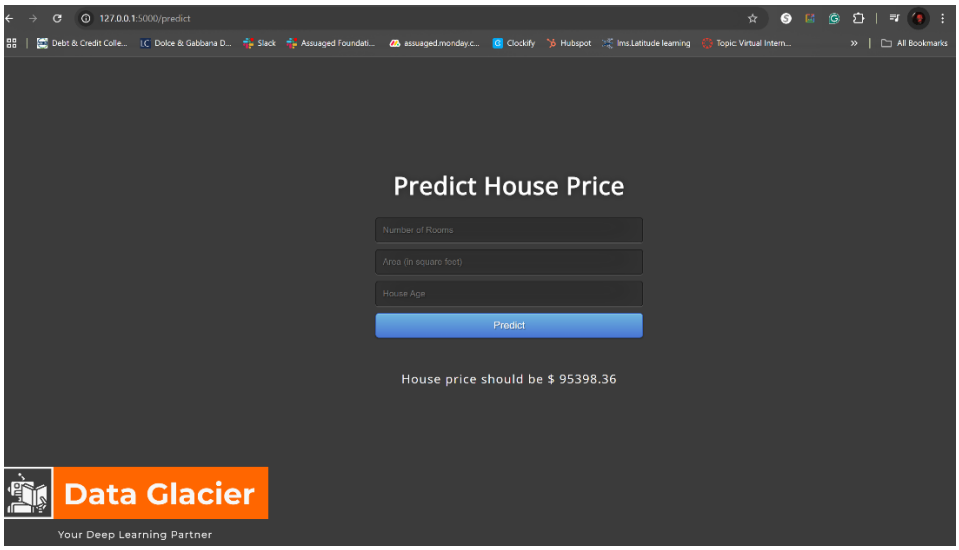
12.



Submitted by: Sophonie Sidrac
Submitted to: Data Glacier
Submission Date: 12/01/24