



# **Data Science Intern at Data Glacier**

## **Week 5: Cloud API Development**

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**Batch Code:** LISUM12

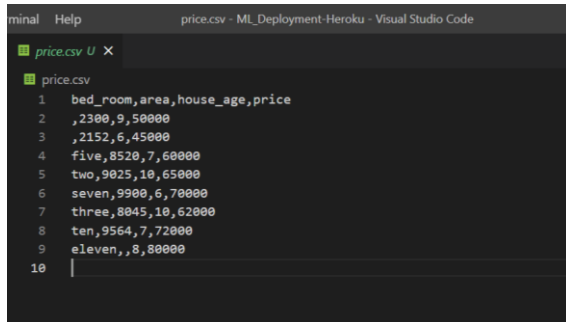
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**Submitted to:** Data Glacier

# 1. Introduction

In this project, I have added “Guess Home Prices” data as I have learned in the example of Data Glacier. It can be found on: <https://mldeploymentmethod.herokuapp.com/>

## 2. Data Information




```
price.csv
1  bed_room,area,house_age,price
2  ,2300,9,50000
3  ,2152,6,45000
4  five,8520,7,60000
5  two,9025,10,65000
6  seven,9900,6,70000
7  three,8045,10,62000
8  ten,9564,7,72000
9  eleven,,8,80000
10 |
```

## 3. Turning Model into Web Application

### 3.1 App.py

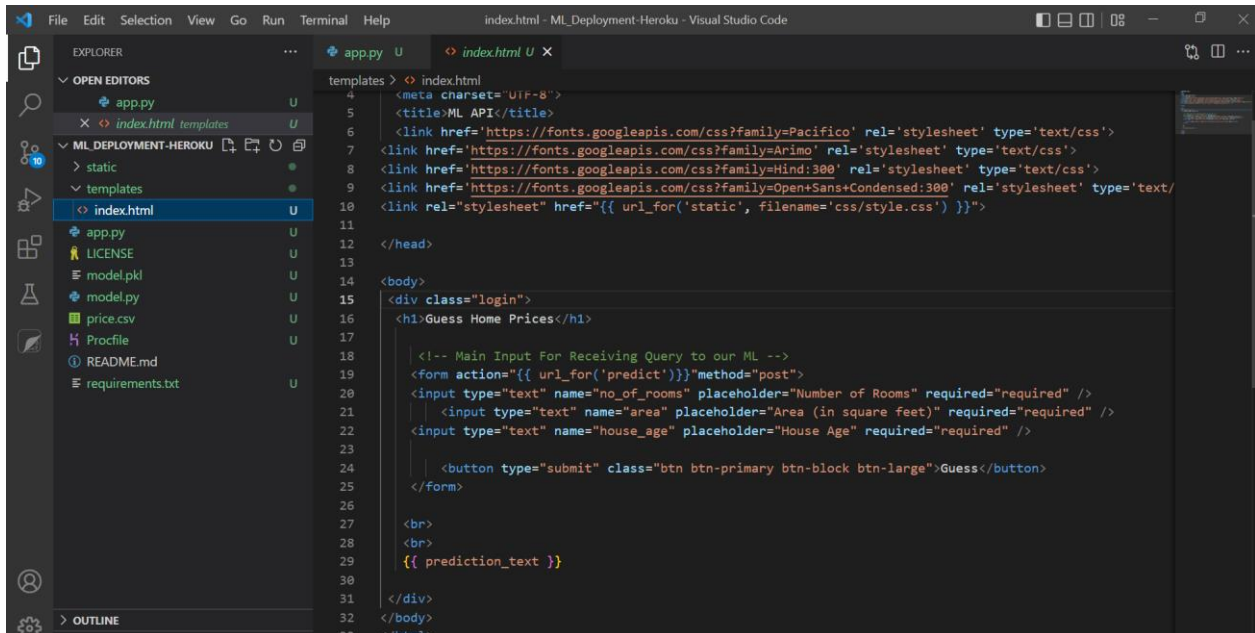
The `app.py` file contains the main code that will be executed by the Python interpreter to run the Flask web application.



```
app.py
1  import numpy as np
2  from flask import Flask, request, render_template
3  import pickle
4
5  app = Flask(__name__)
6  model = pickle.load(open('model.pkl', 'rb'))
7
8  @app.route('/')
9  def home():
10     return render_template('index.html')
11
12  @app.route('/predict', methods=['POST'])
13  def predict():
14     """
15     For rendering results on HTML GUI
16     """
17     int_features = [int(x) for x in request.form.values()]
18     final_features = [np.array(int_features)]
19     prediction = model.predict(final_features)
20
21     output = round(prediction[0], 2)
22
23     return render_template('index.html', prediction_text='House price should be $ {}'.format(output))
24
25  if __name__ == "__main__":
26     app.run(debug=True)
```

## 3.2 Index.html

The following are the contents of the `index.html` file that will render a text form where a user can enter a message.



```
1 <!-- Main Input For Receiving Query to our ML -->
2 <form action="{{ url_for('predict')}}" method="post">
3   <input type="text" name="no_of_rooms" placeholder="Number of Rooms" required="required" />
4   <input type="text" name="area" placeholder="Area (in square feet)" required="required" />
5   <input type="text" name="house_age" placeholder="House Age" required="required" />
6   <button type="submit" class="btn btn-primary btn-block btn-large">Guess</button>
7 </form>
8
9 <br>
10 <br>
11 <{{ prediction_text }}>
12 </div>
13 </body>
14 </html>
```

## 4. Model deployment using Heroku

Now that our model has been trained, the machine learning pipeline has been set up, and the application has been tested locally, we're ready to begin our Heroku deployment. There are several methods for uploading the application source code to Heroku. The simplest method is to connect a GitHub repository to your Heroku account.

