

## Week 4: Deployment on Flask

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### Step 1: Writing Flask Application

```
Welcome  app.py  style.css  index.html
app.py > predict
1  import numpy as np
2  import pickle
3  from flask import Flask, request, render_template
4
5  app = Flask(__name__)
6  model = pickle.load(open('model/model.sav', '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     flag = False
15     if request.method == "POST":
16         bedroom = int(request.form.get('bedroom'))
17         bathroom = int(request.form.get('bathroom'))
18         surface = float(request.form.get('surface'))
19         longitude = float(request.form.get('longitude'))
20         latitude = float(request.form.get('latitude'))
21         ptype = int(request.form.get('ptype'))
22
23         raw_features = [bathroom, bedroom, surface, longitude, latitude, ptype]
24         features = [np.array(raw_features)]
25
26         prediction = model.predict(features)
27         output = round(prediction[0], 2)
28         return render_template('index.html', flag=True, prediction_text=f'House price should be €{output}.')
29
30
31
32
```

## Step 2: Running the Flask Application

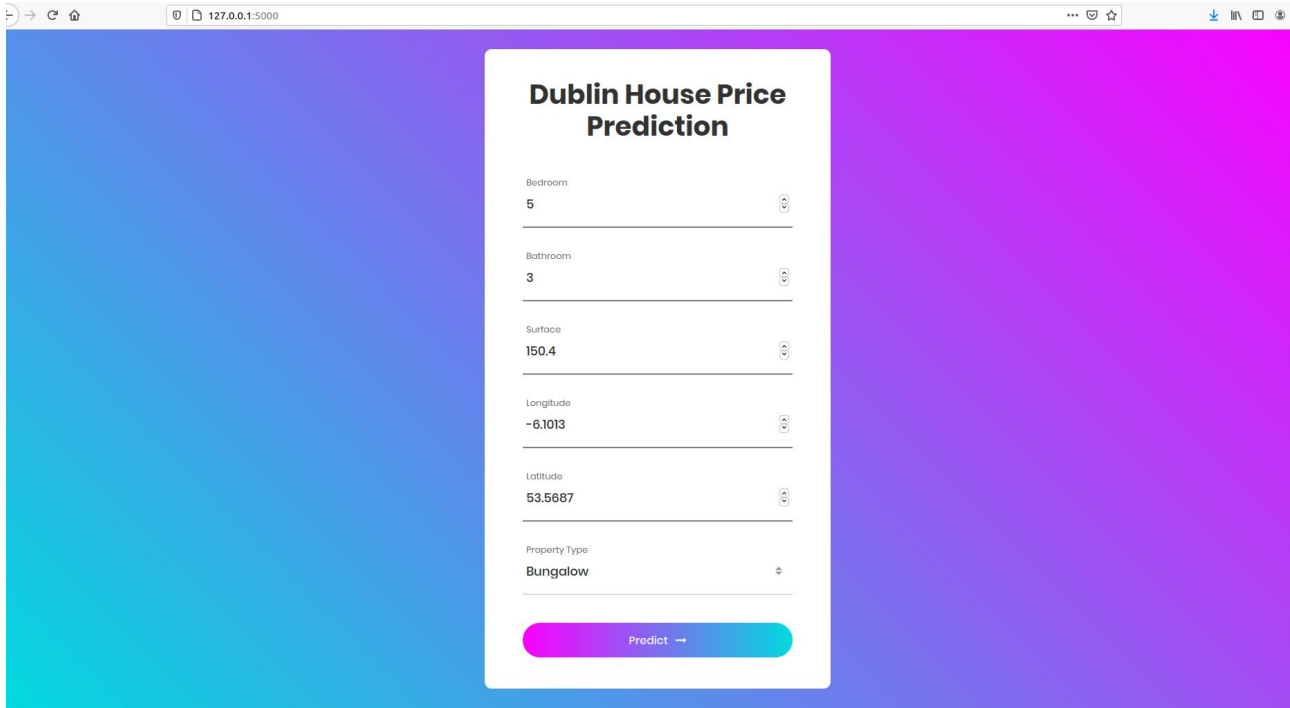
```
aman@PC: ~/Documents/AMAN/COURSES/Data Glacier Inter...  
(aman_venv) aman@PC:~/Documents/AMAN/COURSES/Data Glacier Internship/GITHUB/Data  
-Science-Internship2021/Week4/mldeploy$ flask run  
* Environment: development  
* Debug mode: on  
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)  
* Restarting with stat  
* Debugger is active!  
* Debugger PIN: 771-315-603
```

## Step 3: Open the link in the browser

The screenshot shows a web browser window with the address bar displaying '127.0.0.1:5000'. The page has a blue and purple gradient background. In the center, there is a white card titled 'Dublin House Price Prediction'. The card contains the following form elements:

- Bedroom:** Input field with 'Eg: 3' and a clear button.
- Bathroom:** Input field with 'Eg: 2' and a clear button.
- Surface:** Input field with 'Eg: 124.6' and a clear button.
- Longitude:** Input field with 'Eg: -6.101148' and a clear button.
- Latitude:** Input field with 'Eg: 53.566881' and a clear button.
- Property Type:** A dropdown menu currently showing 'Detached'.
- Predict:** A blue button with a right-pointing arrow.

## Step 4: Testing the model



**Dublin House Price Prediction**

Bedroom  
5

Bathroom  
3

Surface  
150.4

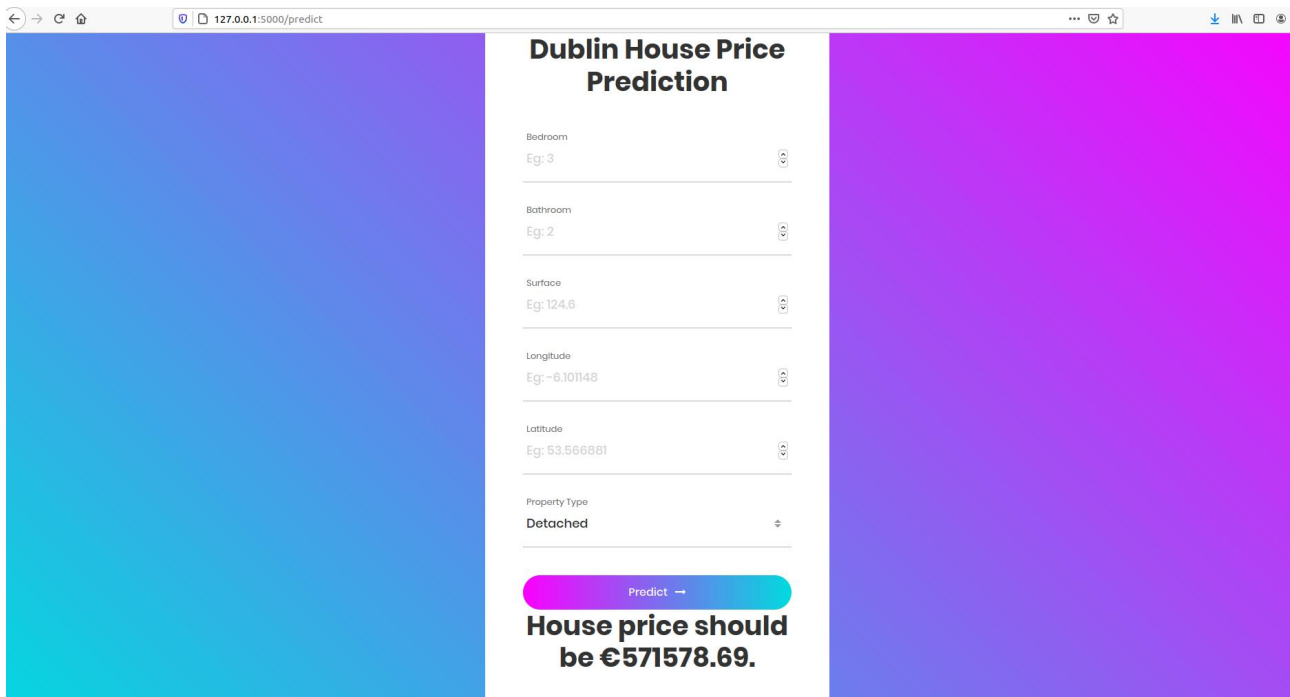
Longitude  
-6.1013

Latitude  
53.5687

Property Type  
Bungalow

Predict →

## Step 5: Getting the result



**Dublin House Price Prediction**

Bedroom  
Eg: 3

Bathroom  
Eg: 2

Surface  
Eg: 124.6

Longitude  
Eg: -6.10148

Latitude  
Eg: 53.566861

Property Type  
Detached

Predict →

**House price should be €571578.69.**