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Batch code – LISUM30

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```
server > server.py > predict home_price
1 from flask import flask, request, jsonify
2 import util
3
4 app = Flask(__name__)
5
6 @app.route('/get_location_names', methods=['GET'])
7 def get_location_names():
8     response = jsonify({
9         'locations': util.get_location_names()
10    })
11    response.headers.add('Access-Control-Allow-Origin', '*')
12    return response
13
14 @app.route('/predict_home_price', methods=['GET', 'POST'])
15 def predict_home_price():
16     total_sqft = float(request.form['total_sqft'])
17     location = request.form['location']
18     bhk = int(request.form['bhk'])
19     bath = int(request.form['bath'])
20
21     response = jsonify({
22         'estimated_price': util.get_estimated_price(location, total_sqft, bhk, bath)
23    })
24    response.headers.add('Access-Control-Allow-Origin', '*')
25    return response
26
27 if __name__ == "__main__":
28     print("Starting Python Flask Server For Home Price Prediction...")
29     flask.run()
```

```
client > JS app.js > onClickedEstimatePrice > $.post() callback
1 function getBathValue() {
2     var uiBathrooms = document.getElementsByName("uiBathrooms");
3     for(var i in uiBathrooms) {
4         if(uiBathrooms[i].checked) {
5             return parseInt(i)+1;
6         }
7     }
8     return -1; // Invalid Value
9 }
10
11 function getBHKValue() {
12     var uiBHK = document.getElementsByName("uiBHK");
13     for(var i in uiBHK) {
14         if(uiBHK[i].checked) {
15             return parseInt(i)+1;
16         }
17     }
18     return -1; // Invalid Value
19 }
20
21 function onClickedEstimatePrice() {
22     console.log("Estimate price button clicked");
23     var sqft = document.getElementById("uiSqft");
24     var bhk = getBHKValue();
25     var bathrooms = getBathValue();
26     var location = document.getElementById("uiLocations");
27
28     // var url = "http://127.0.0.1:8080/predict_home_price"; //Use this if you are NOT using nginx which is first 7
29     var url = "http://127.0.0.1:8080/predict_home_price"; // Use this if you are using nginx. i.e tutorial 8 and on
```

VS Code interface showing a Python project named 'bhp' with files: server.py, app.js, BHP.ipynb, util.py, and columns.json. The code in server.py defines a function to estimate price based on location, sqft, bhk, and bath.

```
server.py
1  import pickle
2  import json
3  import numpy as np
4
5  __locations = None
6  __data_columns = None
7  __model = None
8
9  def get_estimated_price(location,sqft,bhk,bath):
10     try:
11         loc_index = __data_columns.index(location.lower())
12     except:
13         loc_index = -1
14
15     x = np.zeros(len(__data_columns))
16     x[0] = sqft
17     x[1] = bath
18     x[2] = bhk
19     if loc_index>=0:
20         x[loc_index] = 1
21
22     return round(__model.predict([x])[0],2)
23
24
25 def load_saved_artifacts():
26     print("loading saved artifacts...start")
27     global __data_columns
28     global __locations
29
```

The browser window shows the web application running at `C:/Users/manuv/bhp/client/app.html`. The form includes input fields for Area (Square Feet), BHK, Bath, and Location, along with an 'Estimate Price' button.

Area (Square Feet): 1000

BHK: 1 2 3 4 5

Bath: 1 2 3 4 5

Location: Choose a Location

Estimate Price

