<!doctype html>

<html lang="en">

  <head>

    <!-- Required meta tags -->

    <meta charset="utf-8">

    <meta name="viewport" content="width=device-width, initial-scale=1">

    <!-- Bootstrap CSS -->

    <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.1/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-4bw+/aepP/YC94hEpVNVgiZdgIC5+VKNBQNGCHeKRQN+PtmoHDEXuppvnDJzQIu9" crossorigin="anonymous">

    <title>House Price Predictor</title>

  </head>

  <body class = "bg-info-subtle">

    <div class="container">

        <div class="row">

            <div class="card" style = "width: 100%; height: 100%; margin-top: 50px">

                <div class="card-header" style = "text-align: center;">

                    <h1> House Price Predictor</h1>

                </div>

                <div class="card-body">

                    <form method="post" accept-charset="utf-8">

                        <div class="row">

                            <div class="col-md-6 form-group" style="text-align: center;">

                                <label><b>Select the Location:</b></label>

                                <select class="select-picker form-control" id="location" name="location" required="1">

                                    {% for location in locations %}

                                        <option value="{{location}}">{{location}}</option>

                                    {% endfor %}

                                </select>

                            </div>

                            <div class="col-md-6 form-group" style="text-align: center;">

                                <label><b>Enter the BHK:</b></label>

                                <input type="text" class="form-control" id="bhk" name="bhk" placeholder="Enter BHK" style="text-align: left;">

                            </div>

                            <div class="col-md-6 form-group" style="text-align: center;">

                                <label><b>Enter the Number of Bathrooms:</b></label>

                                <input type="text" class="form-control" id="bath" name="bath" placeholder="Enter Number of Bathrooms" style="text-align: left;">

                            </div>

                            <div class="col-md-6 form-group" style="text-align: center;">

                                <label><b>Enter Square Feet:</b></label>

                                <input type="text" class="form-control" id="sqft" name="sqft" placeholder="Enter Total Square Feet" style="text-align: left;">

                            </div>

                            <br>

                            <div class="col-md-12 form-group">

                                <button class="btn btn-outline-info form-control" onclick="send\_data()" type="button">Predict Price</button>

                            </div>

                        </div>

                    </form>

                    <br>

                    <div class="col-md-12" style="text-align: center;">

                        <h3><span id="prediction"></span></h3>

                    </div>

                </div>

            </div>

        </div>

    </div>

    <!-- Option 2: Separate Popper and Bootstrap JS -->

    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.1/dist/js/bootstrap.bundle.min.js" integrity="sha384-HwwvtgBNo3bZJJLYd8oVXjrBZt8cqVSpeBNS5n7C8IVInixGAoxmnlMuBnhbgrkm" crossorigin="anonymous"></script>

    <script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.11.8/dist/umd/popper.min.js" integrity="sha384-I7E8VVD/ismYTF4hNIPjVp/Zjvgyol6VFvRkX/vR+Vc4jQkC+hVqc2pM8ODewa9r" crossorigin="anonymous"></script>

    <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.1/dist/js/bootstrap.min.js" integrity="sha384-Rx+T1VzGupg4BHQYs2gCW9It+akI2MM/mndMCy36UVfodzcJcF0GGLxZIzObiEfa" crossorigin="anonymous"></script>

    <script>

        function form\_handler(event){

                event.preventDefault();

            }

        function send\_data()

        {

            document.querySelector('form').addEventListener("submit", form\_handler);

            var fd = new FormData(document.querySelector('form'));

            var xhr = new XMLHttpRequest();

            xhr.open('POST' , '/predict', true);

            document.getElementById("prediction").innerHTML = "Wait predicting price!.....";

            xhr.onreadystatechange = function(){

                if(xhr.readyState == XMLHttpRequest.DONE){

                    document.getElementById('prediction').innerHTML = "Prediction: Rs." + xhr.responseText;

                }

            };

            xhr.onload = function(){};

            xhr.send(fd);

        }

    </script>

  </body>

</html>

#flask app

from flask import Flask, render\_template, request

import pickle

import numpy as np

import pandas as pd

app = Flask(\_\_name\_\_)

data = pd.read\_csv('Cleaned\_data.csv')

pipe = pickle.load(open("RidgeModel.pkl", 'rb'))

@app.route('/')

def index():

    locations = sorted(data['location'].unique())

    return render\_template('index.html', locations = locations)

@app.route('/predict', methods = ['POST'])

def predict():

    locations = request.form.get('location')

    bhk = float(request.form.get('bhk'))

    bath = float(request.form.get('bath'))

    sqft = request.form.get('total\_sqft')

    print(locations, bhk, bath, sqft)

    input = pd.DataFrame([[locations, sqft, bath,bhk]],columns=['location' , 'total\_sqft', 'bath', 'bhk'])

    prediction = pipe.predict(input)[0]

    return str(np.round(prediction, 2))

if \_\_name\_\_ == "\_\_main\_\_":

    app.run(debug = True, port = 5001)