

app.py

```
1 from flask import Flask, request, jsonify, render_template
2 import joblib
3 import pandas as pd
4 import numpy as np
5
6 app = Flask(__name__)
7
8 # Load model
9 model = joblib.load('nomad_salary_model.joblib')
10
11 @app.route('/')
12 def home():
13     return render_template('index.html')
14
15 @app.route('/predict', methods=['POST'])
16 def predict_salary():
17     try:
18         # Get JSON data
19         data = request.json
20
21         # Validate required fields
22         required_fields = [
23             'job_role', 'company_remote', 'location',
24             'nomad_visa', 'productivity', 'burnout_level'
25         ]
26
27         if not all(field in data for field in required_fields):
28             return jsonify({"error": "Missing required fields"}), 400
29
30         # Prepare input data
31         input_data = {
32             'job_role': data['job_role'],
33             'company_remote': 1 if str(data['company_remote']).upper() == 'Y' else 0,
34             'location': data['location'],
35             'nomad_visa': 1 if str(data['nomad_visa']).upper() == 'Y' else 0,
36             'productivity': int(data['productivity']),
37             'burnout_level': int(data['burnout_level']),
38             'city': data['location'].split(',')[0].strip(),
39             'country': data['location'].split(',')[1].strip()
40         }
41
42         # Convert to DataFrame
43         input_df = pd.DataFrame([input_data])
44
45         # Make prediction
46         prediction = model.predict(input_df)
47
48         return jsonify({
49             'predicted_salary_usd': round(float(prediction[0]), 2),
50             'input_features': input_data
51         })
52
53     except Exception as e:
54         return jsonify({"error": str(e)}), 500
55
56 if __name__ == '__main__':
57     app.run(host='0.0.0.0', port=5000, debug=True)
```