

Using the web service

A simple web service is launched on pythonanywhere.com following the instruction in: <https://github.com/nindate/ml-zoomcamp-exercises/blob/main/how-to-use-pythonanywhere.md>

The code running on the host is given in file: *flask_app.py* (under *web_service* folder)

It looks like below on the pythonanywhere editor:



```
1  from flask import Flask, request, jsonify
2  import pickle
3  import numpy as np
4
5  app = Flask(__name__)
6
7  print("dd")
8
9  with open('mysite/model.bin', 'rb') as f_in:
10     dv, model = pickle.load(f_in)
11
12
13 @app.route('/predict', methods=['POST'])
14 def predict():
15     building = request.get_json()
16
17     X = dv.transform([building])
18     y_pred = model.predict(X)
19
20     result = {
21         'heating': round(float(np.exp(y_pred[0,0])), 2),
22         'cooling': round(float(np.exp(y_pred[0,1])), 2)
23     }
24     return jsonify(result)
25
```

Note that, the model file is also uploaded:

Directories

Enter new directory name

New directory

__pycache__



Files

Enter new file name, eg hello.py

flask_app.py

2021-10-31 23:05 513 bytes

model.bin

2021-10-31 20:39 1010.8 KB

Upload a file

100MiB maximum size

In order to reach it, use the *cloud-test.ipynb* file in *web_service* folder as below:

```
+ Code + Markdown | ▶ Run All ... Python 3.9.5 64-bit ('midterm_project-TBMLFfwk': pipenv)

1 import requests
[1] ✓ 0.8s Python

1 url = 'http://cemk.pythonanywhere.com/predict'
[2] ✓ 0.2s Python

1 building = {"compactness": 0.9,
2             "surface_area": 563.5,
3             "wall_area": 318.5,
4             "roof_area": 122.5,
5             "height": 7.0,
6             "orientation": 5.0,
7             "glazing_area": 0.4,
8             "glazing_distribution": 4.0}
[3] ✓ 0.1s Python

1 response = requests.post(url, json=building).json()
2
3 print(response)
[4] ✓ 0.6s Python

... {'cooling': 35.88, 'heating': 36.23} ← Results
```

Set these
parameters

← Results

Alternatively, you can modify the *cloud-test.py* file (in the same folder) by setting building parameters in your editor as you wish and run it with:

```
python cloud-test.py
```