

Beyond Advanced Python: Exercise 3

Overview

A Flask-based app is needed. Routes should lead to:

- A simple home page offering links to the other routes
- An image of a kitten, with parameterized width and height
- A map of Athlone
- A 404 handler for all routes that are not matched

```
@app.errorhandler(404)
def page_not_found(error):
    return render_template('page_not_found.html'), 404
```

- A template showing the weather temperature for a city. This route can call your weather app, passing the city in

Some sample HTML Templates are here:

<https://github.com/onionmccabbage/beyondAdvancedPythonApril2021/tree/main/review3/templates>

Testing and Timing

Construct some useful unit tests to run against parts of your app (e.g. the weather service).

Tests should fail if outcomes are not as expected. Also test that exceptions are thrown as expected.

Gather some timing metrics by using `timeit` along with some of your functions.

Optional

Parameterize the map template to take lat/lon values entered by the user, then write a parameterized route which takes lat/lon values and show the relevant map.

Write a module called `preparation.py` which asks the user to enter some default values to use in the Flask site. This module should provide defaults for city, width, height etc.

Persist these values in a simple text file.

When the Flask app starts, read this configuration file and use these defaults