

Developing an API for a Distributed Environment

In this session, you will create a RESTful API which can be used to create and delete user records. Responses to the questions should be recorded in your e-portfolio.

You are advised to use these techniques to create an API for your team's submission in Unit 11 and be prepared to demonstrate it during next week's seminar (Unit 10). Remember that you can arrange a session with the tutor during office hours for more support, if required.

Using the [Jupyter Notebook workspace](#), create a file named api.py and copy the following code into it (a copy is provided for upload to Codio/GitHub): You can [install Jupyter Notebook on your local machine following these instructions](#) or via the [University of Essex Software Hub](#).

Question 1

Run the API.py code. Take a screenshot of the terminal output. What command did you use to compile and run the code?

```
-----  
ModuleNotFoundError                                Traceback (most recent call last)  
~\AppData\Local\Temp\ipykernel_2436\67104364.py in <module>  
    3  
    4 from flask import Flask  
----> 5 from flask_restful import Api, Resource, reqparse  
    6  
    7 app = Flask(__name__)  
  
ModuleNotFoundError: No module named 'flask_restful'
```

I then added pip flask_RESTful and ran this

```
* Serving Flask app 'api'  
* Debug mode: on  
[31m[1mWARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.[0m  
* Running on http://127.0.0.1:5000  
[33mPress CTRL+C to quit[0m  
* Restarting with stat
```

Question 2

Run the following command at the terminal prompt: w3m <http://127.0.0.1:5000/user/Ann>

What happens when this command is run, and why?

When sending a GET request from I received the following response:

```
{  
  "name": "Ann",  
  "age": 32,  
  "occupation": "Doctor"  
}
```

Question 3

Run the following command at the terminal prompt:

w3m <http://127.0.0.1:5000/user/Adam>

What happens when this command is run, and why?

"User not found"

Question 4

What capability is achieved by the flask library?

Flask is a Python web framework that is used for developing web applications. It provides a simple way to create web applications by providing reusable code or extensions for common operations such as URL routing and page rendering. Flask does not provide features like form validation, database abstraction, authentication, and so on. Such features are instead provided by special Python packages called Flask extensions.