

```

from flask import Flask
from flask_restful import Api, Resource, reqparse

app = Flask(__name__)
api = Api(app)

users = [
    {
        "name": "James",
        "age": 30,
        "occupation": "Network Engineer"
    },
    {
        "name": "Ann",
        "age": 32,
        "occupation": "Doctor"
    },
    {
        "name": "Jason",
        "age": 22,
        "occupation": "Web Developer"
    }
]

class User(Resource):
    def get(self, name):
        for user in users:
            if(name == user["name"]):
                return user, 200
        return "User not found", 404

    def post(self, name):
        parser = reqparse.RequestParser()
        parser.add_argument("age")
        parser.add_argument("occupation")
        args = parser.parse_args()

        for user in users:
            if(name == user["name"]):
                return "User with name {} already exists".format(name), 400

        user = {
            "name": name,

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        "age": args["age"],
        "occupation": args["occupation"]
    }
    users.append(user)
    return user, 201

def put(self, name):
    parser = reqparse.RequestParser()
    parser.add_argument("age")
    parser.add_argument("occupation")
    args = parser.parse_args()

    for user in users:
        if(name == user["name"]):
            user["age"] = args["age"]
            user["occupation"] = args["occupation"]
            return user, 200

    user = {
        "name": name,
        "age": args["age"],
        "occupation": args["occupation"]
    }
    users.append(user)
    return user, 201

def delete(self, name):
    global users
    users = [user for user in users if user["name"] != name]
    return "{} is deleted.".format(name), 200

api.add_resource(User, "/user/<string:name>")

app.run(debug=True)

```

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?

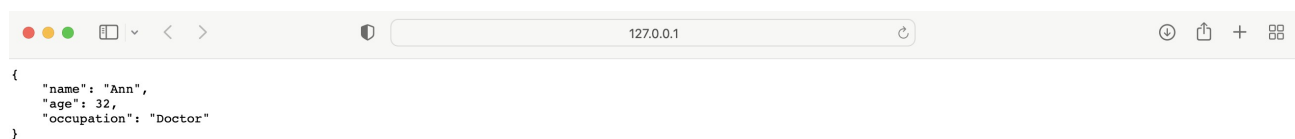
```
[Running] python -u "/Users/robertocappiello/Documents/University of Essex/Secure Software Development/Codio exercise/API.py"
* Serving Flask app "API" (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
* Restarting with fsevents reloader
* Debugger is active!
* Debugger PIN: 560-711-793
```

I only had to hit the run button on VisualStudioCode to get the above prompt in the terminal.

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?



The screenshot shows a web browser window with the address bar displaying `127.0.0.1`. The page content is a JSON object:

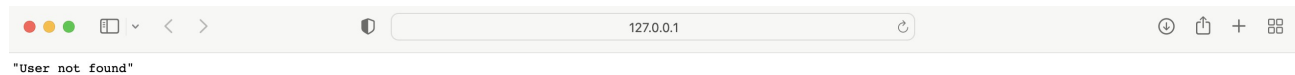
```
{  "name": "Ann",  "age": 32,  "occupation": "Doctor"}
```

In the browser window appears the information related to the user Ann which are stated in the line of code specified above.

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?



The screenshot shows a web browser window with the address bar displaying `127.0.0.1`. The page content is the text `"User not found"`.

In the browser window is displayed users not found because the user "Adam" doesn't exist in the code

Question 4

What capability is achieved by the flask library?