

# COMSE6156 - Topics in SW Engineering: Cloud Computing Sprint 0 Status Report

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Fall 2023

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Cloud Computing

Spring 0 / Task 1

## Clone and Modify the Starter Project

- Below is a screen capture of my directory on PyCharm.

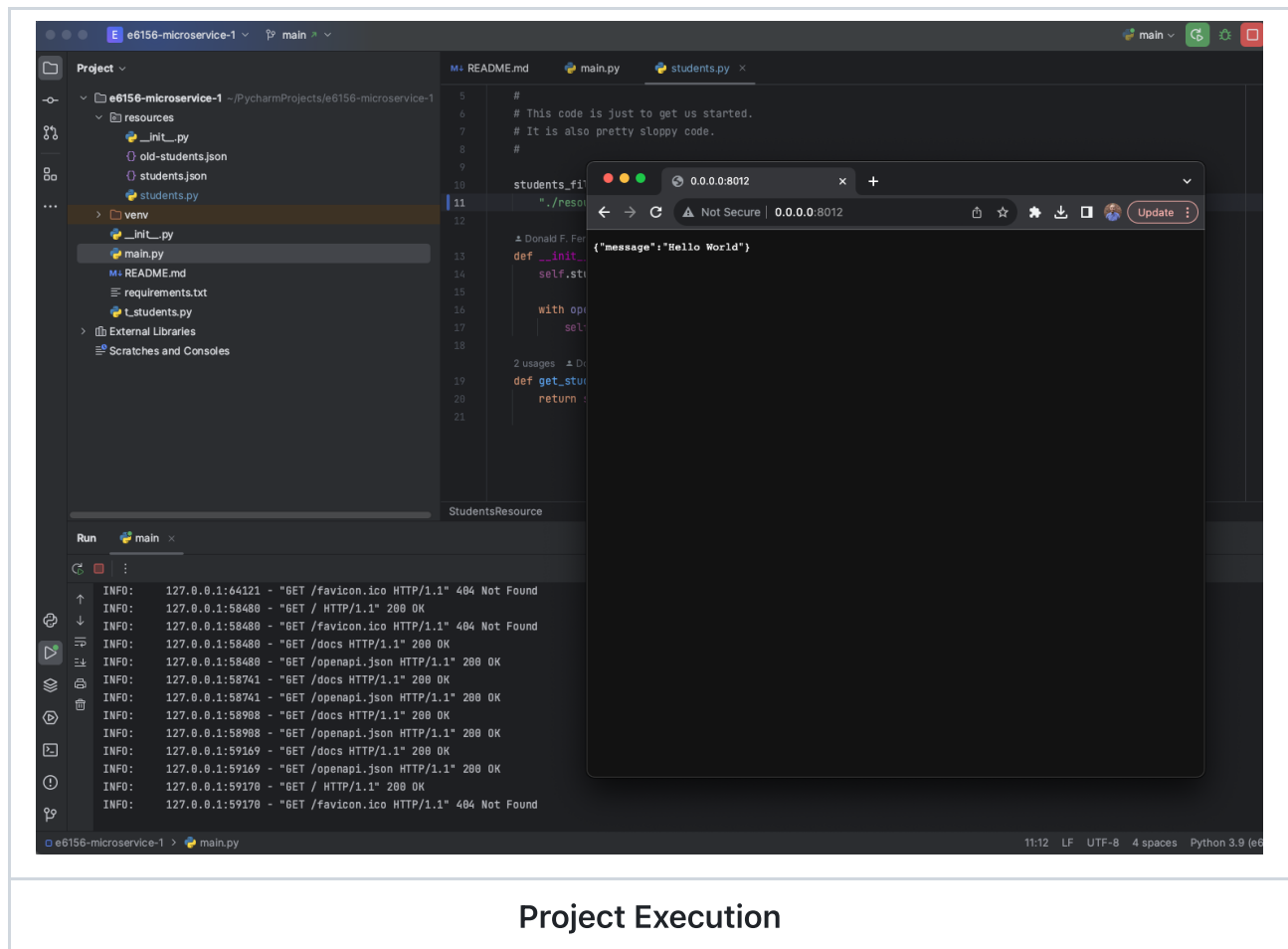
```
5 #
6 # This code is just to get us started.
7 # It is also pretty sloppy code.
8 #
9
10 students_file = \
11     "./resources/old-students.json"
12
13
14 # Donald F. Ferguson (Ansys)
15 def __init__(self):
16     self.students = None
17
18     with open(self.students_file, "r") as j_file:
19         self.students = json.load(j_file)
20
21
22 2 usages: 1 Donald F. Ferguson (Ansys)
23 def get_students(self):
24     return self.students
25
```

```
INFO: Waiting for application startup.
INFO: Application startup complete.
INFO: Uvicorn running on http://0.0.0.0:8012 (Press CTRL+C to quit)
INFO: 127.0.0.1:64121 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:64121 - "GET /favicon.ico HTTP/1.1" 404 Not Found
INFO: 127.0.0.1:58480 - "GET / HTTP/1.1" 200 OK
INFO: 127.0.0.1:58480 - "GET /favicon.ico HTTP/1.1" 404 Not Found
INFO: 127.0.0.1:58480 - "GET /docs HTTP/1.1" 200 OK
INFO: 127.0.0.1:58480 - "GET /openapi.json HTTP/1.1" 200 OK
INFO: 127.0.0.1:58741 - "GET /docs HTTP/1.1" 200 OK
INFO: 127.0.0.1:58741 - "GET /openapi.json HTTP/1.1" 200 OK
INFO: 127.0.0.1:58908 - "GET /docs HTTP/1.1" 200 OK
INFO: 127.0.0.1:58908 - "GET /openapi.json HTTP/1.1" 200 OK
```

Cloned Project

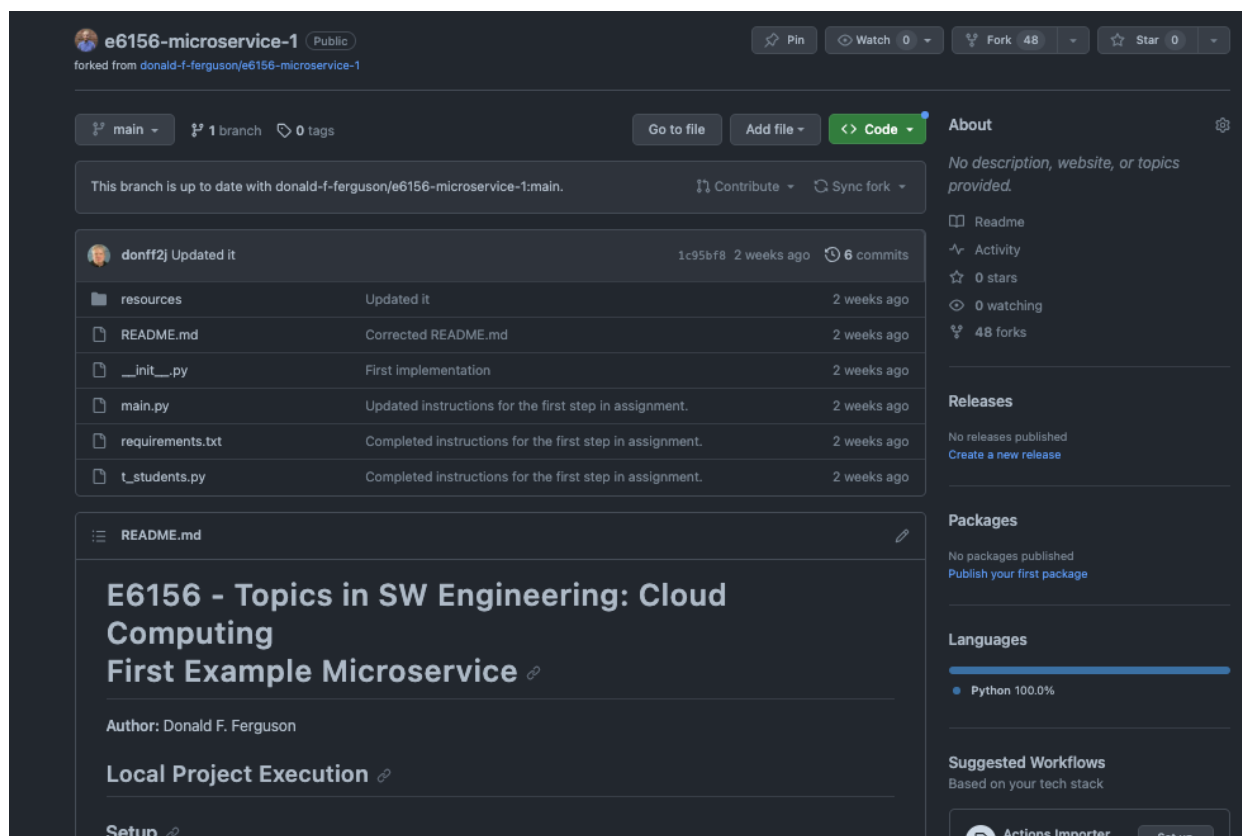
## Execute the Starter Project

Below you will find my project executing. The execution window and browser are side-by-side.



## Create Your Own GitHub Project

Below you'll see that I made a copy of the project and created a project in GitHub.



## Project on GitHub

## Deploy and Test Project on AWS [↗](#)

Below you'll see my VM through the console.

Instance details | EC2 | us-east-1

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#InstanceDetails:instanceId=i-0b7fbf8a9d6ad0a0a

Instance summary for i-0b7fbf8a9d6ad0a0a (test-e6156-cloud) Info

Updated less than a minute ago

Connect Instance state Actions

Instance ID i-0b7fbf8a9d6ad0a0a (test-e6156-cloud)	Public IPv4 address 34.207.128.56 <a href="#">open address</a>	Private IPv4 addresses 172.31.87.181
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-34-207-128-56.compute-1.amazonaws.com <a href="#">open address</a>
Hostname type IP name: ip-172-31-87-181.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-87-181.ec2.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	AWS Compute Optimizer finding <a href="#">Opt-in to AWS Compute Optimizer for recommendations.</a> <a href="#">Learn more</a>
Auto-assigned IP address 34.207.128.56 [Public IP]	VPC ID vpc-0d2203efe5bbf7f74	Auto Scaling Group name -
IAM Role -	Subnet ID subnet-03623e48b3c3fa9b1	
IMDSv2 Required		

Details Security Networking Storage Status checks Monitoring Tags

Instance details Info

Platform Amazon Linux (Inferred)	AMI ID ami-03a6eaae9938c858c	Monitoring disabled
Platform details	AMI name	Termination protection

## AWS Console

Finally, below you'll see my copied application running in the EC2 terminal and browser.

FastAPI Swagger UI

Not Secure ec2-34-207-128-56.compute-1.amazonaws.com

FastAPI 0.10.9 QAS 3.1

/openapi.json

default

- GET / Root
- GET /hello/{name} Say Hello
- GET /hello\_text/{name} Say Hello Text
- GET /students Get Students

Schemas

- HTTPValidationError Expand all object
- ValidationError Expand all object

EC2 Instance Connect | us-east-1

us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-1&instanceId=i-0b7fbf8a9d6ad0a0a

```
WARNING: Invalid HTTP request received.
WARNING: Invalid HTTP request received.
WARNING: Invalid HTTP request received.
INFO: 127.0.0.1:59844 - "GET /docs HTTP/1.1" 200 OK

<!DOCTYPE html>
<html>
<head>
<link type="text/css" rel="stylesheet" href="https://cdn.jsdelivr.net/npm/swagger-ui-dist@5/swagger-ui.css">
<link rel="shortcut icon" href="https://fastapi.tiangolo.com/img/favicon.png">
<title>FastAPI - Swagger UI</title>
</head>
<body>
<div id="swagger-ui">
</div>
<script src="https://cdn.jsdelivr.net/npm/swagger-ui-dist@5/swagger-ui-bundle.js"></script>
<!-- SwaggerUIBundle is now available on the page -->
<script>
const ui = SwaggerUIBundle({
  url: '/openapi.json',
  'dom_id': '#swagger-ui',
  'layout': 'BaseLayout',
  'deepLinking': true,
  'showExtensions': true,
  'showCommonExtensions': true,
  oauth2RedirectUrl: window.location.origin + '/docs/oauth2-redirect',
  presets: [
    SwaggerUIBundle.presets.apis,
    SwaggerUIStandalonePreset
  ],
});
</script>
</body>
</html>

[ec2-user@ip-172-31-87-181 ~]$ fastapi --reload --port 8080
INFO: 209.2.224.155:58997 - "GET / HTTP/1.1" 200 OK
INFO: 209.2.224.155:58997 - "GET /favicon.ico HTTP/1.1" 404 Not Found
INFO: 209.2.224.155:58997 - "GET /docs HTTP/1.1" 200 OK
INFO: 209.2.224.155:58997 - "GET /openapi.json HTTP/1.1" 200 OK

WARNING: Invalid HTTP request received.

i-0b7fbf8a9d6ad0a0a (test-e6156-cloud)
PublicIPs: 34.207.128.56 PrivateIPs: 172.31.87.181
```

CloudShell Feedback Privacy Terms Cookie preferences

**Service Running**