

Homework 2 - Serverless Infrastructure Images and Explanations

These are the images in order of the tasks listed on the assignment (step 7):

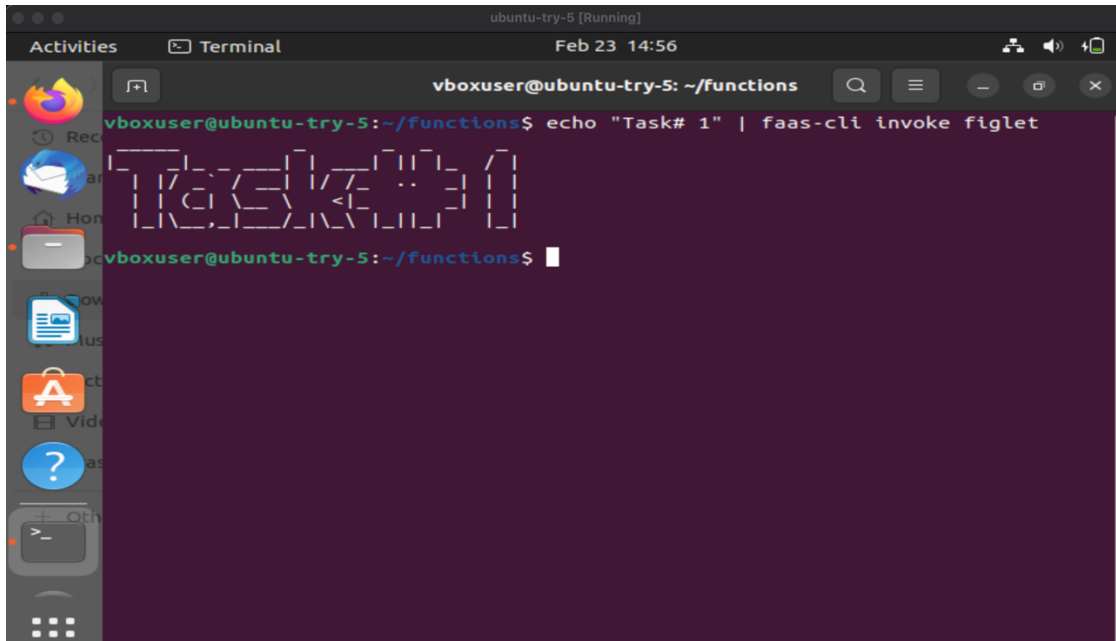


Figure 1: Screenshot of invoking figlet function

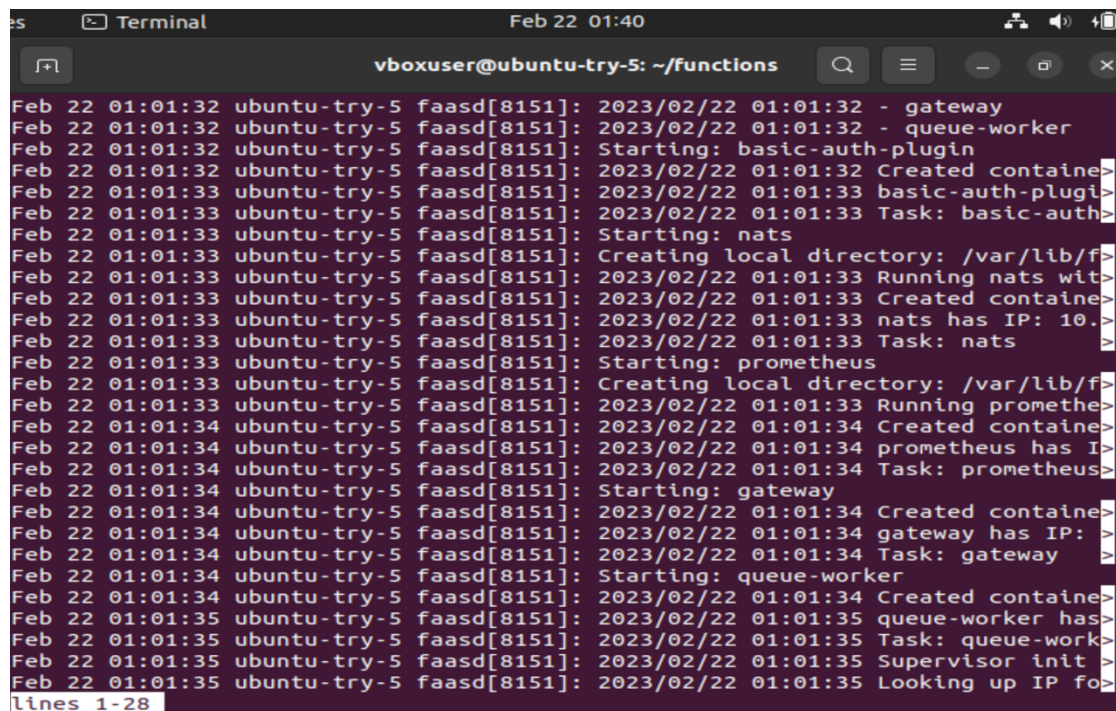


Figure 2: Screenshot 1/2 of running the journalctl command

```
Feb 22 01:01:33 ubuntu-try-5 faasd[8151]: Starting: prometheus
Feb 22 01:01:33 ubuntu-try-5 faasd[8151]: Creating local directory: /var/lib/f
Feb 22 01:01:33 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:33 Running promethe
Feb 22 01:01:34 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:34 Created containe
Feb 22 01:01:34 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:34 prometheus has I
Feb 22 01:01:34 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:34 Task: prometheus
Feb 22 01:01:34 ubuntu-try-5 faasd[8151]: Starting: gateway
Feb 22 01:01:34 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:34 Created containe
Feb 22 01:01:34 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:34 gateway has IP:
Feb 22 01:01:34 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:34 Task: gateway
Feb 22 01:01:34 ubuntu-try-5 faasd[8151]: Starting: queue-worker
Feb 22 01:01:34 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:34 Created containe
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 queue-worker has
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Task: queue-work
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Supervisor init
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Looking up IP fo
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Resolver rebuild
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Resolver: "local
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Resolver: "faasd
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Resolver: "basic
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Resolver: "nats"
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Resolver: "prome
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Resolver: "gatew
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Looking up IP fo
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Proxy from: 0.0.
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 faasd: waiting f
Feb 22 01:01:35 ubuntu-try-5 faasd[8151]: 2023/02/22 01:01:35 Proxy from: 127.
lines 13-40/40 (END)
```

Figure 3: Screenshot 2/2 of running the journalctl command

The two images above show the logs after running this command: `sudo journalctl -u faasd --lines 40`. This command shows all the things happening with faasd in past (40 lines).

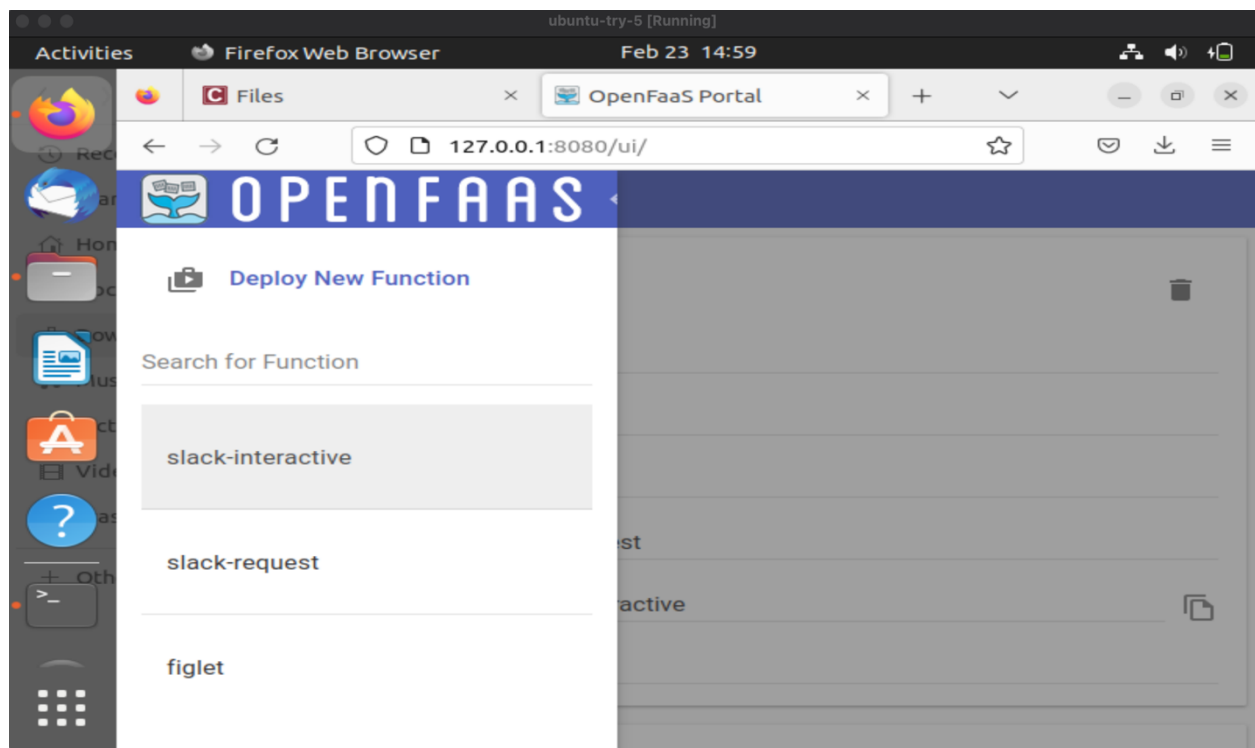


Figure 4: OpenFaaS gateway 1/4

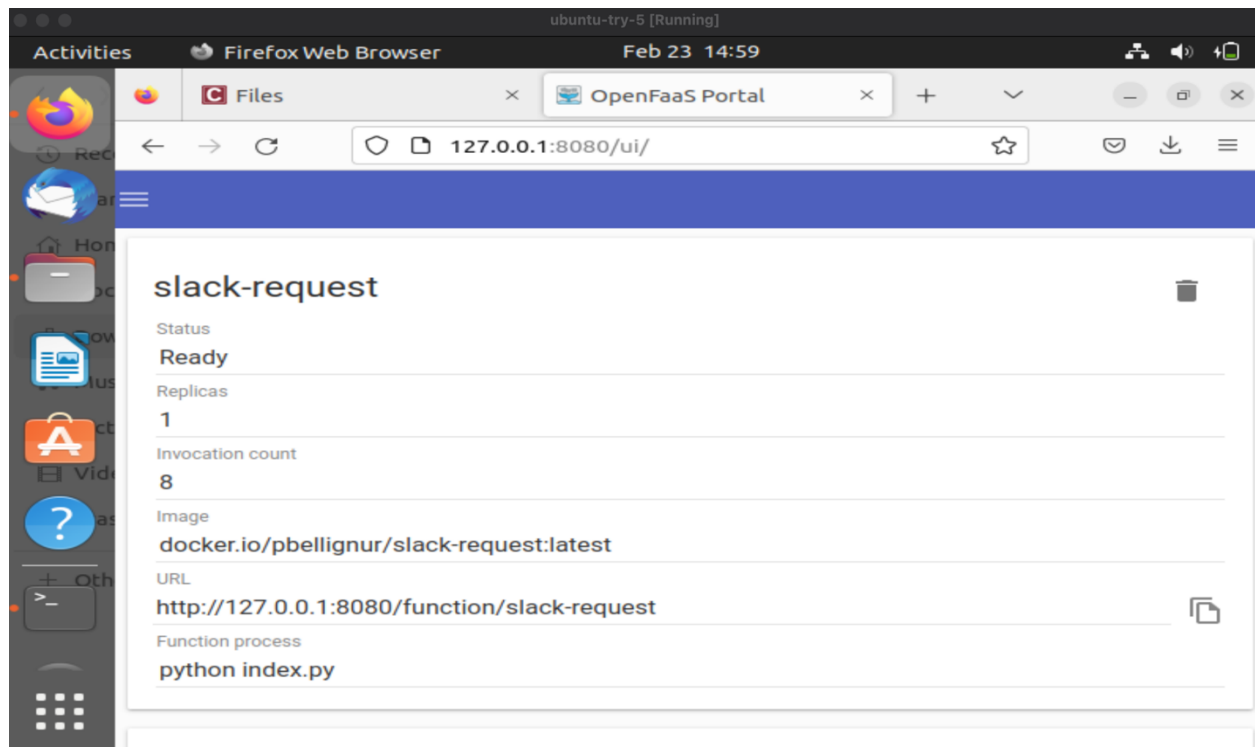


Figure 5: OpenFaaS gateway 2/4

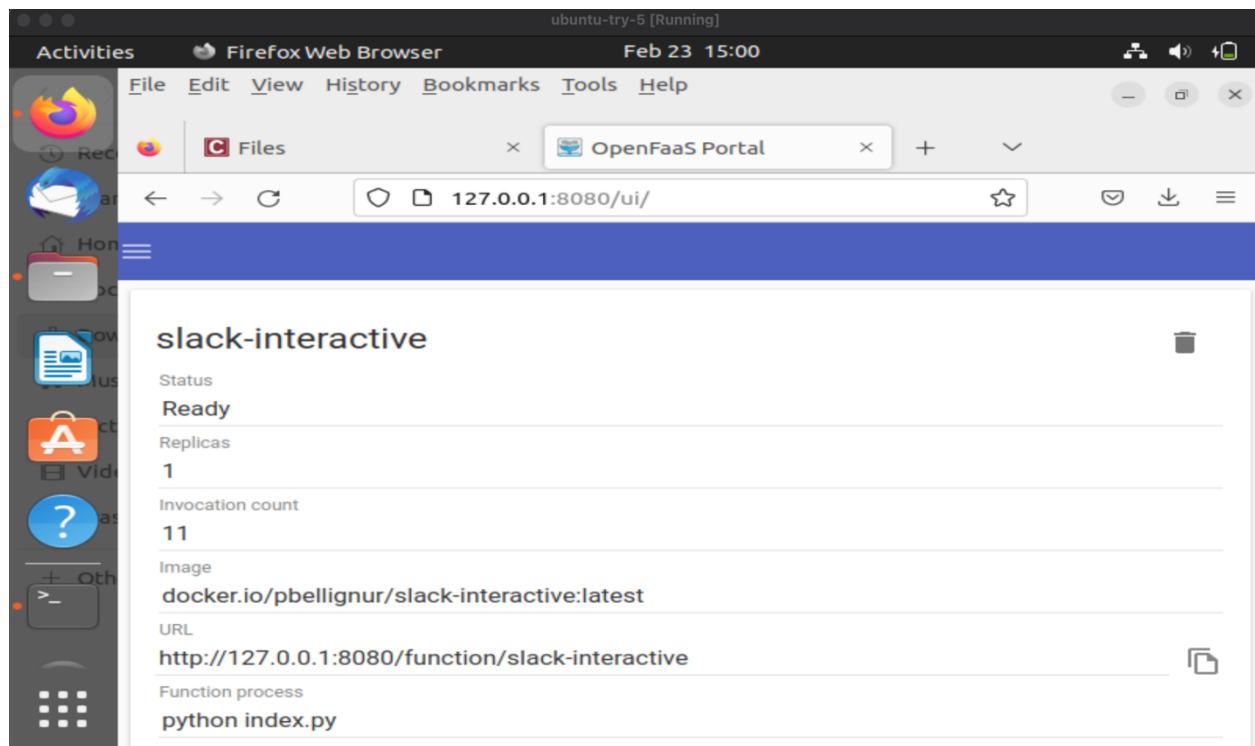


Figure 6: OpenFaaS gateway 3/4

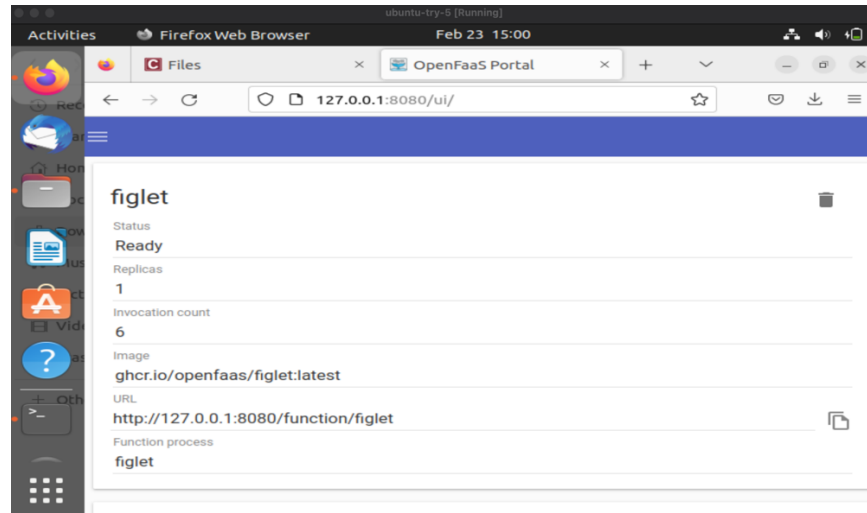


Figure 7: OpenFaaS gateway 4/4

The four images above show the screenshots of the OpenFaaS gateway after invoking all three required functions: figlet, slack-request, and slack-interactive. I also ran the `sudo journalctl -t default:gateway --lines 40` command to get the logs, but that said no entries.

```
vboxuser@ubuntu-try-5:~/functions$ faas-cli invoke slack-request
Reading from STDIN - hit (Control + D) to stop.
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://avatars.githubusercontent.com/u/56777804?s=400&v=4", "author_name": "Prajwal Bellignur", "title": "The Awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is the most awesome class ever!.", "title": "About COEN 241"}, {"title": "Would you recommend COEN 241 to your friends?", "color": "#3AA3E3", "actions": [{"text": "Of Course!", "type": "button", "name": "recommend", "value": "recommend"}, {"text": "Most Definitely!", "type": "button", "name": "definitely", "value": "definitely"}], "callback_id": "response123", "fallback": "Would you recommend COEN 241 to your friends?", "attachment_type": "default"}]}
```

Figure 8: Invoking Slack-Request Function

```
vboxuser@ubuntu-try-5:~/functions$ echo '{"name": "Prajwal", "message": "This is sample message for COEN 241"}' | faas-cli invoke slack-interactive
{"attachments": [{"footer": "Slack Apps built on OpenFaaS", "author_link": "https://github.com/Prajwal-Bellignur/COEN-241.git", "color": "#36a64f", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "Prajwal Bellignur", "title_link": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/", "image_url": "https://www.scu.edu/media/offices/umc/scu-brand-guidelines/visual-identity-amp-photography/visual-identity-toolkit/logos-amp-seals/Mission-Dont3.png", "response_type": "ephemeral", "replace_original": true, "footer_icon": "https://a.slack-edge.com/45901/marketing/img/_rebrand/meta/slack_hash_256.png", "pretext": "Ahh yeah! Great choice, COEN 241 is absolutely amazing!", "fallback": "Required plain-text summary of the attachment.", "thumb_url": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/", "author_icon": "https://avatars.githubusercontent.com/u/56777804?s=400&v=4"}]}
```

Figure 9: Invoking Slack-Interactive Function

The two images above show the invoking of the slack functions. As seen in Figure 8, that is the output after invoking the slack-request function. Figure 9 is the screenshot of the output of the slack-interactive function. The main command used is the one highlighted in white. The first part of the command is the echo command which passes in a JSON object, so the function doesn't throw an error. When I ran it without an echo command, there was an error which gave a value error that stated this: Server returned unexpected status code: 500 - exit status 1. ValueError: No JSON object could be decoded.