

COEN 241 Assignment 2

Fangfang Lin(Isabella)

W1630994

Screenshots for the tasks(80 pts):

- Provide a screenshot of invoking the figlet function (10 pts)

```
isabella@ubuntu:~/functions$ echo "Hello, FaaS, world" | faas-cli invoke figlet
Hello, FaaS, world
```

- Complete slack-request/handler.py (20 pt)

```
isabella@ubuntu: ~/functions/slack-request
File Edit View Search Terminal Help
import json
def handle(req):
    """handle a request to the function
    Args:
        req (str): request body
    """

    data = {
        "text": "Serverless Message",
        "attachments": [{
            "title": "Welcome to COEN 241",
            "fields": [{
                "title": "Follower",
                "value": "10000",
                "short": True
            }],
            "author_name": "Fangfang Lin",
            "author_icon": "",
            "image_url": "https://avatars.githubusercontent.com/u/93758181?s=400&v=4"
        },
        {
            "title": "Details about COEN 241",
            "text": "It's a course about cloud computing"
        },
        {
            "fallback": "Would you recommend COEN 241 to your friends?",
            "title": "Would you recommend COEN 241 to your friends?",
            "callback_id": "response123",
            "color": "#FF0000",
            "attachment_type": "default",
            "actions": [
                {
                    "name": "recommend",
                    "text": "Of Course!",
                    "type": "button",
                    "value": "recommend"
                },
                {
                    "name": "definitely",
                    "text": "Most Definitely!",
                    "type": "button",
                    "value": "definitely"
                }
            ]
        }
    ]
}
```

- Complete slack-interactive/handler.py (20 pt)

```

Isabella@ubuntu: ~/functions/slack-interactive
File Edit View Search Terminal Help
import json
import urllib
def handle(req):
    """handle a request to the function
    Args:
        req (str): request body
    """
    # urlstring = urllib.unquote(req).decode('utf8').strip('payload=')
    # response = json.loads(urlstring)
    data = {
        "attachments": [
            {
                "replace_original": True,
                "response_type": "ephemeral",
                "fallback": "Required plain-text summary of the attachment.",
                "color": "#FFA500",
                "pretext": "Nice choice! Have fun with COEN 241!",
                "author_name": "Fanfang Lin",
                "author_link": "https://github.com/IsabellaLin325/COEN241",
                "author_icon": "https://avatars.githubusercontent.com/u/93758181?s=400&v=4",
                "title": "COEN 241",
                "title_link": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/",
                "text": "Head over to COEN 241",
                "image_url": "https://www.scu.edu/media/offices/umc/scu-brand-guidelines/visual-identity-and-photography/visual-identity-toolkit/logos-and-seals/Mission-Dont3.png",
                "thumb_url": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/",
                "footer": "Slack Apps built on OpenFaaS",
                "footer_icon": "https://a.slack-edge.com/45901/marketing/img/_rebrand/meta/slack_hash_256.png",
                "ts": 123456789
            }
        ]
    }
    return json.dumps(data)

```

- Provide a screenshot of running the following command (10 pts)

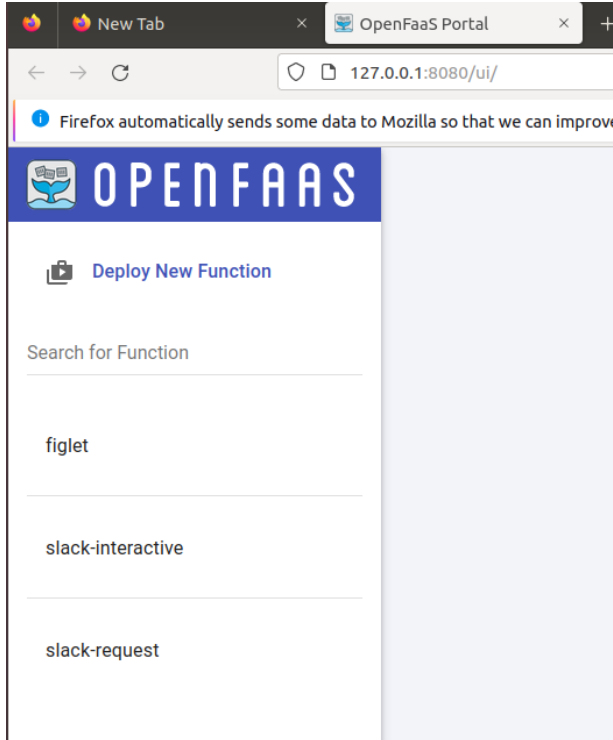
sudo journalctl -u faasd --lines 40

```

Isabella@ubuntu:~/coen241/hw2/faasd$ sudo cat /var/lib/faasd/secrets/basic-auth-password
62LcbYvItKjHy0KdStpY680M7tFQExzjcTzSUG5guTMq7bjnVfKRDAr2LVyWjMnIsabella@ubuntu:~/coen241/hw2/faasd$ sudo journalctl
-u faasd --lines 40
-- Logs begin at Mon 2023-02-13 18:58:58 PST, end at Fri 2023-02-17 15:59:11 PST
Feb 17 15:35:35 ubuntu faasd[1604]: 2023/02/17 15:35:35 - gateway
Feb 17 15:35:35 ubuntu faasd[1604]: 2023/02/17 15:35:35 - queue-worker
Feb 17 15:35:35 ubuntu faasd[1604]: Starting: basic-auth-plugin
Feb 17 15:35:36 ubuntu faasd[1604]: 2023/02/17 15:35:36 Created container: basic
Feb 17 15:36:16 ubuntu faasd[1604]: 2023/02/17 15:36:16 basic-auth-plugin has IP
Feb 17 15:36:16 ubuntu faasd[1604]: 2023/02/17 15:36:16 Task: basic-auth-plugin
Feb 17 15:36:17 ubuntu faasd[1604]: Starting: nats
Feb 17 15:36:17 ubuntu faasd[1604]: Creating local directory: /var/lib/faasd/nat
Feb 17 15:36:17 ubuntu faasd[1604]: 2023/02/17 15:36:17 Running nats with user:
Feb 17 15:36:17 ubuntu faasd[1604]: 2023/02/17 15:36:17 Created container: nats
Feb 17 15:36:28 ubuntu faasd[1604]: 2023/02/17 15:36:28 nats has IP: 10.62.0.3
Feb 17 15:36:28 ubuntu faasd[1604]: 2023/02/17 15:36:28 Task: nats
Feb 17 15:36:28 ubuntu faasd[1604]: Starting: prometheus
Feb 17 15:36:28 ubuntu faasd[1604]: Creating local directory: /var/lib/faasd/pro
Feb 17 15:36:28 ubuntu faasd[1604]: 2023/02/17 15:36:28 Running prometheus with
Feb 17 15:36:30 ubuntu faasd[1604]: 2023/02/17 15:36:30 Created container: prom
Feb 17 15:36:43 ubuntu faasd[1604]: 2023/02/17 15:36:43 prometheus has IP: 10.62
Feb 17 15:36:43 ubuntu faasd[1604]: 2023/02/17 15:36:43 Task: prometheus
Feb 17 15:36:44 ubuntu faasd[1604]: Starting: gateway
Feb 17 15:36:45 ubuntu faasd[1604]: 2023/02/17 15:36:45 Created container: gatew
Feb 17 15:36:52 ubuntu faasd[1604]: 2023/02/17 15:36:52 gateway has IP: 10.62.0.
Feb 17 15:36:52 ubuntu faasd[1604]: 2023/02/17 15:36:52 Task: gateway

```

- Provide a screenshot of your OpenFaaS gateway AFTER deploying figlet, slack-handler and slack-interactive functions (10 pts)



- Provide a screenshot of invoking slack-request and slack-interactive functions (10 pts)

```
isabella@ubuntu:~/functions$ echo "Hello, FaaS, world" | faas-cli invoke slack-request
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "10000", "title": "Follower"}], "author_icon": "", "image_url": "https://avatars.githubusercontent.com/u/93758181?s=400&v=4", "author_name": "Fangfang Lin", "title": "Welcome to COEN 241"}, {"text": "It's a course about cloud computing", "title": "Details about COEN 241"}, {"title": "Would you recommend COEN 241 to your friends?", "color": "#FF0000", "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"}]}
isabella@ubuntu:~/functions$ curl http://127.0.0.1:8080/function/slack-request
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "10000", "title": "Follower"}], "author_icon": "", "image_url": "https://avatars.githubusercontent.com/u/93758181?s=400&v=4", "author_name": "Fangfang Lin", "title": "Welcome to COEN 241"}, {"text": "It's a course about cloud computing", "title": "Details about COEN 241"}, {"title": "Would you recommend COEN 241 to your friends?", "color": "#FF0000", "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"}]}
```

```
isabella@ubuntu:~/functions$ echo "Hello, FaaS, world" | faas-cli invoke slack-interactive
{"attachments": [{"footer": "Slack Apps built on OpenFaaS", "author_link": "https://github.com/IsabellaLin325/COEN241", "color": "#FFA500", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "Fanfang Lin", "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": "Nice choice! Have fun with COEN 241!", "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/93758181?s=400&v=4"}]}
isabella@ubuntu:~/functions$ curl http://127.0.0.1:8080/function/slack-interactive
{"attachments": [{"footer": "Slack Apps built on OpenFaaS", "author_link": "https://github.com/IsabellaLin325/COEN241", "color": "#FFA500", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "Fanfang Lin", "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": "Nice choice! Have fun with COEN 241!", "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/93758181?s=400&v=4"}]}
```