


HW2 - COEN 241 - Explanation

1. Screenshot of invoking figlet function

```
nrego@nrego:~/faasd$ echo "Hello, FaaS, world" | faas-cli invoke figlet
```



```
nrego@nrego:~/faasd$
```

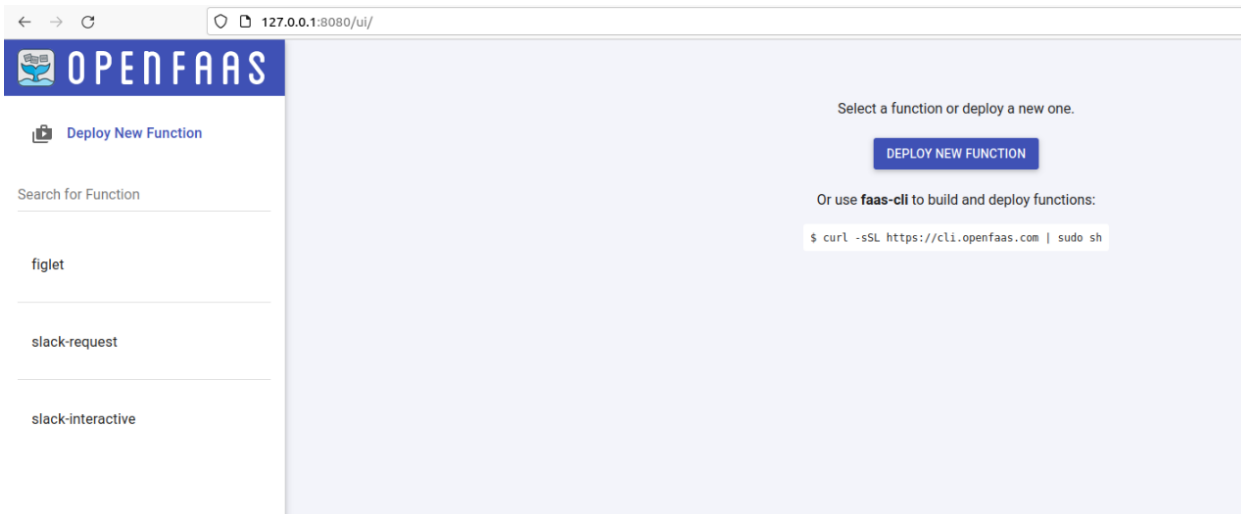
To deploy the figlet function, run the faas-cli store deploy figlet command. So, the URL is created: <http://127.0.0.1:8080/function/figlet> The repo url is provided by the Faas-cli store inspect figlet command. Then, figlet invoke is executed with echo to print the above string.

2. `sudo journalctl -u faasd --line 40`

```
nrego@nrego:~/faasd$ sudo journalctl -u faasd --lines 40
-- Logs begin at Thu 2023-02-16 20:14:32 UTC, end at Thu 2023-02-16 20:20:35 UTC.
Feb 16 20:18:26 nrego faasd[2649]: 2023/02/16 20:18:26 - gateway
Feb 16 20:18:26 nrego faasd[2649]: 2023/02/16 20:18:26 - queue-worker
Feb 16 20:18:26 nrego faasd[2649]: Starting: nats
Feb 16 20:18:26 nrego faasd[2649]: Creating local directory: /var/lib/faasd/nats
Feb 16 20:18:26 nrego faasd[2649]: 2023/02/16 20:18:26 Running nats with user: >
Feb 16 20:18:26 nrego faasd[2649]: 2023/02/16 20:18:26 Created container: nats
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 nats has IP: 10.62.0.2
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Task: nats Contain>
Feb 16 20:18:27 nrego faasd[2649]: Starting: prometheus
Feb 16 20:18:27 nrego faasd[2649]: Creating local directory: /var/lib/faasd/prometheus
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Running prometheus with >
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Created container: prome>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 prometheus has IP: 10.62>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Task: prometheus >
Feb 16 20:18:27 nrego faasd[2649]: Starting: basic-auth-plugin
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Created container: basic>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 basic-auth-plugin has IP>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Task: basic-auth-plugin >
Feb 16 20:18:27 nrego faasd[2649]: Starting: gateway
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Created container: gatew>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 gateway has IP: 10.62.0.5>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Task: gateway Con>
Feb 16 20:18:27 nrego faasd[2649]: Starting: queue-worker
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Created container: queue>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 queue-worker has IP: 10.>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Task: queue-worker >
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Supervisor init done in:>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Looking up IP for: "gate>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Resolver rebuilding map>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Resolver: "localhost"="1>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Resolver: "faasd-provide>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Resolver: "nats"="10.62.>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Resolver: "prometheus"=>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Resolver: "basic-auth-pl>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Resolver: "gateway"="10.>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Resolver: "queue-worker">
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Looking up IP for: "prom>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Proxy from: 127.0.0.1:90>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 faasd: waiting for SIGTE>
Feb 16 20:18:27 nrego faasd[2649]: 2023/02/16 20:18:27 Proxy from: 0.0.0.0:8080>
lines 19-41/41 (END)
```

This command enables you to print logs so that you can see if faasd is operating properly.

3. Screenshot of your OpenFaaS gateway AFTER deploying figlet, slack-handler and slack-interactive functions



These results show that figlet, slack-interactive, and slack-request have been deployed.

4. Screenshot of invoking slack-request and slack-interactive functions

a. \$faas-cli invoke slack-interactive

```
nrego@nrego:~/functions$ echo "Running" | sudo faas-cli invoke slack-interactive
{"attachments": [{"footer": "Slack Apps built on OpenFaas", "author_link": "https://github.com/nolita26/COEN241.git", "color": "#36a64f", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "", "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": "Yes! That's an amazing choice, COEN 241 is 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://github.com/nolita26.png"}]}
nrego@nrego:~/functions$
```

b. sudo curl -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/function/slack-interactive

```
[nrego@nrego:~/functions$ sudo curl -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/function/slack-interactive
{"attachments": [{"footer": "Slack Apps built on OpenFaas", "author_link": "https://github.com/nolita26/COEN241.git", "color": "#36a64f", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "", "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": "Yes! That's an amazing choice, COEN 241 is 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://github.com/nolita26.png"}]}
nrego@nrego:~/functions$
```

c. `$faas-cli invoke slack-request`

```
[nrego@nrego:~/functions$ echo "Running" | sudo faas-cli invoke slack-request ]
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/nolita26.png", "author_name": "Nolita Rego", "title": "The Awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is my favourite class and I enjoy it!.", "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"}]}
nrego@nrego:~/functions$
```

d. `sudo curl -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/function/slack-request`

```
[nrego@nrego:~/functions$ sudo curl -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/function/slack-request
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/nolita26.png", "author_name": "Nolita Rego", "title": "The Awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is my favourite class and I enjoy it!.", "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"}]}
nrego@nrego:~/functions$
```

For the above screenshots, two commands are used to launch Slack-request and Slack-interactive (faas-cli and curl).