

COEN 241: Homework 2 ScreenShot Explanation

Name: Mridul Amitkumar Gupta

SCU ID: 1607438

1) Invoking the Figlet Command

```
preeti@preeti-Inspiron-15-3511:~/faasd$ echo "Hello, FaaS, world" | faas-cli invoke figlet
Hello, FaaS, world
preeti@preeti-Inspiron-15-3511:~/faasd$
```

Figlet function is deployed from the OpenFaaS store. faas-cli store deploy figlet is executed. Then, we find the URL for the function using faas-cli store inspect figlet. After that, we invoke figlet and print some ASCII characters.

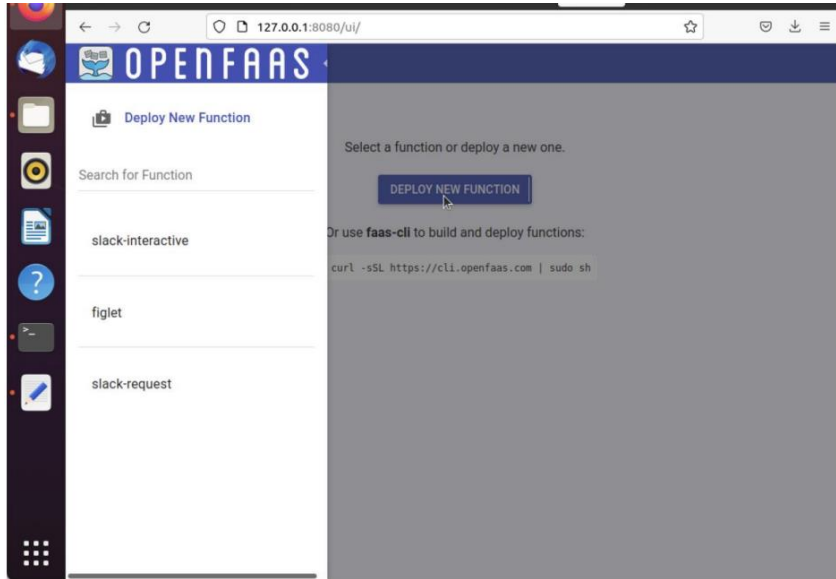
echo "Hello, FaaS world" | faas-cli invoke figlet

2) Running sudo journalctl -u faasd --lines 40

```
preeti@preeti-Inspiron-15-3511:~/functions$ sudo journalctl -u faasd --lines 40
-- Logs begin at Thu 2022-04-07 04:54:08 PDT, end at Sun 2022-10-30 11:58:24 PDT. --
Oct 29 19:01:42 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:42 - gateway
Oct 29 19:01:42 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:42 - queue-worker
Oct 29 19:01:42 preeti-Inspiron-15-3511 faasd[932]: Starting: nats
Oct 29 19:01:42 preeti-Inspiron-15-3511 faasd[932]: Creating local directory: /var/lib/faasd/nats
Oct 29 19:01:42 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:42 Running nats with user: "65534"
Oct 29 19:01:42 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:42 Created container: nats
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 nats has IP: 10.62.0.2
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Task: nats Container: nats
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: Starting: prometheus
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: Creating local directory: /var/lib/faasd/prometheus
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Running prometheus with user: "65534"
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Created container: prometheus
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 prometheus has IP: 10.62.0.3
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Task: prometheus Container: prometheus
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: Starting: basic-auth-plugin
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Created container: basic-auth-plugin
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 basic-auth-plugin has IP: 10.62.0.4
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Task: basic-auth-plugin Container: basic-auth-plugin
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: Starting: gateway
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Created container: gateway
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 gateway has IP: 10.62.0.5
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Task: gateway Container: gateway
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: Starting: queue-worker
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Created container: queue-worker
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 queue-worker has IP: 10.62.0.6
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Task: queue-worker Container: queue-worker
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Supervisor init done in: 1 second
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Looking up IP for: "gateway"
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Resolver rebuilding map
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Looking up IP for: "prometheus"
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Resolver: "localhost"="127.0.0.1"
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Resolver: "faasd-provider"="10.62.0.1"
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Resolver: "nats"="10.62.0.2"
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Resolver: "prometheus"="10.62.0.3"
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Resolver: "basic-auth-plugin"="10.62.0.4"
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Resolver: "gateway"="10.62.0.5"
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 faasd: waiting for SIGTERM or SIGINT
Oct 29 19:01:43 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:43 Proxy from: 127.0.0.1:9090, to: prometheus:9090 (10.62.0.3)
Oct 29 19:01:44 preeti-Inspiron-15-3511 faasd[932]: 2022/10/29 10:01:44 Proxy from: 0.0.0.0:8080, to: gateway:8080 (10.62.0.5)
preeti@preeti-Inspiron-15-3511:~/functions$
```

The above command is used to print logs to check whether FaaS is running or not. We are printing 40 lines of the log.

3) OpenFaaS Gateway screenshot AFTER deploying Figlet,slack-handler and slackinteractive functions



The above screenshot verifies that the three functions have been deployed in the cluster

4) Invoking slack-request function via curl and faas-cli

```
preeti@preeti-Inspiron-15-3511:~/functions$ curl -d '{"Hello":"COEN 241"}' http://127.0.0.1:8080/function/slack-request
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/mridul1998.png", "author_name": "Mridul Gupta", "title": "The Awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is the most awesome class ever!", "title": "About COEN 241"}, {"text": "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"}]}

preeti@preeti-Inspiron-15-3511:~/functions$ faas-cli invoke slack-request
Reading from STDIN - hit (Control + D) to stop.
hello
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/mridul1998.png", "author_name": "Mridul Gupta", "title": "The Awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is the most awesome class ever!", "title": "About COEN 241"}, {"text": "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"}]}
```

5) Invoking slack-interactive using curl and faas-cli

```
preeti@preeti-Inspiron-15-3511:~/functions$ curl -d '{"Hello":"COEN 241"}' http://127.0.0.1:8080/function/slack-interactive
{"attachments": [{"footer": "Slack Apps built on OpenFaaS", "author_link": "https://github.com/mridul1998/COEN241_Cloud_Computing", "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/unc/scu-brand-guidelines/visual-identity-and-photography/visual-identity-toolkit/logos-and-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://github.com/mridul1998.png"}]}

preeti@preeti-Inspiron-15-3511:~/functions$ faas-cli invoke slack-interactive
Reading from STDIN - hit (Control + D) to stop.
{"attachments": [{"footer": "Slack Apps built on OpenFaaS", "author_link": "https://github.com/mridul1998/COEN241_Cloud_Computing", "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/unc/scu-brand-guidelines/visual-identity-and-photography/visual-identity-toolkit/logos-and-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://github.com/mridul1998.png"}]}
```

Here, we invoke the slack-request and slack-interactive functions via both curl and faas- cli and get the output as shown above.