

COEN 241: Cloud Computing

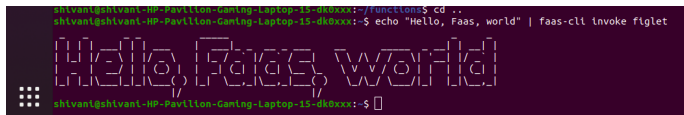
Shivani Gopal Deosatwar

W1621005

Homework 2

Explanation

1. screenshot of invoking the figlet function



```
shivani@shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx:~/faas$ cd ..
shivani@shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx:~$ echo "Hello, Faas, world" | faas-cli invoke figlet
Hello, Faas, world!
```

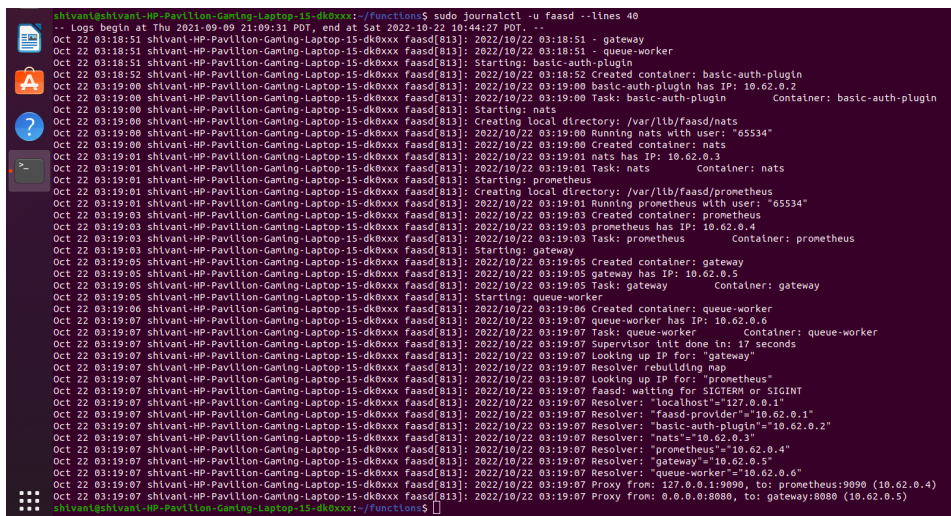
Faas-cli store deploy figlet command is run to deploy figlet function.

This gives us the url <http://127.0.0.1:8080/function/figlet>

Faas-cli store inspect figlet command gives repo url.

Then figlet invoke is run using echo to print string as above.

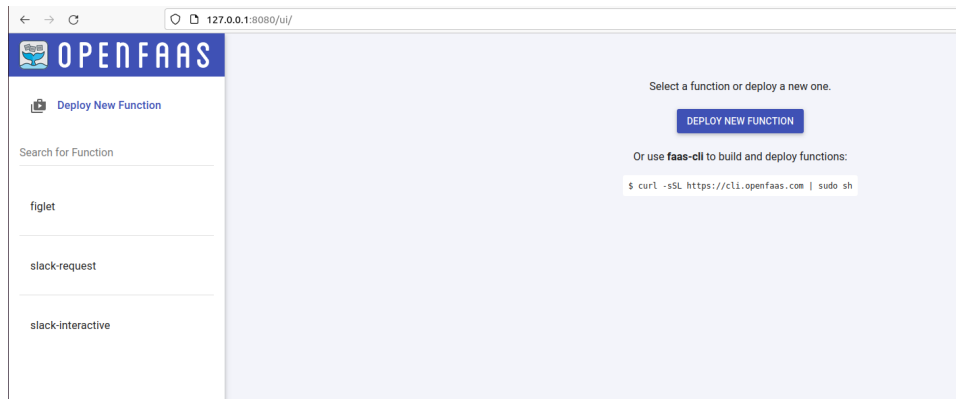
2. sudo journalctl -u faasd --lines 40



```
shivani@shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx:~/function$ sudo journalctl -u faasd --lines 40
-- Logs begin at Thu 2021-09-09 21:09:31 PDT, end at Sat 2022-10-22 10:44:27 PDT. --
Oct 22 03:18:51 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:18:51 - gateway
Oct 22 03:18:51 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:18:51 - queue-worker
Oct 22 03:18:51 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: Starting: basic-auth-plugin
Oct 22 03:18:52 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:18:52 Created container: basic-auth-plugin
Oct 22 03:19:00 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:00 basic-auth-plugin has IP: 10.62.0.2
Oct 22 03:19:00 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:00 Task: basic-auth-plugin Container: basic-auth-plugin
Oct 22 03:19:00 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: Starting: nats
Oct 22 03:19:00 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: Creating local directory: /var/lib/faasd/nats
Oct 22 03:19:00 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:00 Running nats with user: "65534"
Oct 22 03:19:00 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:00 Created container: nats
Oct 22 03:19:01 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:01 nats has IP: 10.62.0.3
Oct 22 03:19:01 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:01 Task: nats Container: nats
Oct 22 03:19:01 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: Starting: prometheus
Oct 22 03:19:01 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: Creating local directory: /var/lib/faasd/prometheus
Oct 22 03:19:01 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:01 Running prometheus with user: "65534"
Oct 22 03:19:03 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:03 Created container: prometheus
Oct 22 03:19:03 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:03 prometheus has IP: 10.62.0.4
Oct 22 03:19:03 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:03 Task: prometheus Container: prometheus
Oct 22 03:19:03 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: Starting: gateway
Oct 22 03:19:05 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:05 Created container: gateway
Oct 22 03:19:05 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:05 gateway has IP: 10.62.0.5
Oct 22 03:19:05 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:05 Task: gateway Container: gateway
Oct 22 03:19:05 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: Starting: queue-worker
Oct 22 03:19:06 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:06 Created container: queue-worker
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 queue-worker has IP: 10.62.0.6
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Task: queue-worker Container: queue-worker
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Supervisor init done in: 17 seconds
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Looking up IP for: "gateway"
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Resolver rebuilding map
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Looking up IP for: "prometheus"
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 faasd: waiting for SIGTERM or SIGINT
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Resolver: "localhost"="127.0.0.1"
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Resolver: "faasd-provider"="10.62.0.1"
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Resolver: "basic-auth-plugin"="10.62.0.2"
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Resolver: "nats"="10.62.0.3"
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Resolver: "prometheus"="10.62.0.4"
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Resolver: "gateway"="10.62.0.5"
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Resolver: "queue-worker"="10.62.0.6"
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Proxy from: 127.0.0.1:9090, to: prometheus:9090 (10.62.0.4)
Oct 22 03:19:07 shivani-HP-Pavillon-Gaming-Laptop-15-dk0xxx faasd[813]: 2022/10/22 03:19:07 Proxy from: 0.0.0.0:8080, to: gateway:8080 (10.62.0.5)
```

This command is used to print logs for checking if faasd runs successfully.

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



This output includes figlet, slack-interactive and slack-request which confirms that they are deployed.

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

1)\$faas-cli invoke slack-interactive

```
Reading from STDIN - hit (Control + D) to stop.
hl{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/SDeosatwar.png", "author_name": "SDeosatwar", "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"}]}
```

2)\$curl -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/function/slack-interactive

```
{ "text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/SDeosatwar.png", "author_name": "SDeosatwar", "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"}]}
```

3)\$faas-cli invoke slack-request

```
Reading from STDIN - hit (Control + D) to stop.
hl{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/SDeosatwar.png", "author_name": "Shivani Deosatwar", "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"}]}
```

4)\$curl -d '{"Hello": "COEN 241"}' <http://127.1.0.1:8080/function/slack-request>

```
://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/SDeosatwar.png", "author_name": "Shivani Deosatwar", "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"}]}
```

Slack-request and slack-interactive are invoked using 2 commands (faas-cli and curl).