



Screenshots with Explanation

Figlet Function:

[illegible]

Installing the Figlet function, by invoking it using the faas-cli and printing a few ASCII values.

**OPENFAAS**

 Deploy New Function

figlet

figlet

StatusReadyReplicas1Invocation count3Imageghcr.io/openfaas/figlet:latestURLhttp://127.0.0.1:8080/function/figletFunction processfiglet

Invoke function

INVOKE

☒ Text☐ JSON☐ Download

Request bodyHello, World

Response status200Round-trip (s)2.062

Response body

```
 _ _ _ _ _      _ _      _ _      _ _      _ _  
|_|_|_---|_|_--- \ \    / /_-- --|_|_|_| | | |
|_|_|/_\_|_|/_\_ \ \  / /_\_|_|_|_|_|_|  
|_|_|_--/|_|_(-)| \ \ V / (-)|_|_|_|_|_|  
|_|_|_|_\\_|_|_|_\\_(-) \_/ \_/ \_|_|_|_|_|  
          |/  

```

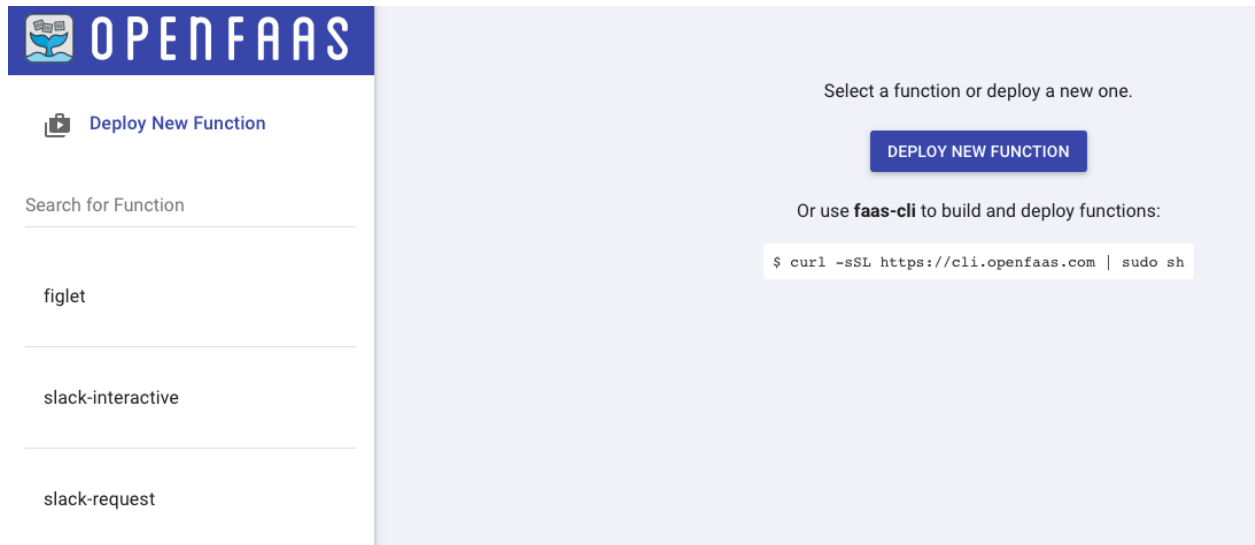
Invoking the figlet function in the above image, through the Openfaas UI and entering a few ASCII values.

Faasd Logs

```
malst@ubuntu:~$ sudo journalctl -u faasd --lines 40
[sudo] password for malst:
-- Logs begin at Mon 2023-01-30 20:52:32 UTC, end at Wed 2023-02-15 20:47:04 UTC. --
Feb 15 05:12:23 ubuntu faasd[884]: 2023/02/15 05:12:23 - prometheus
Feb 15 05:12:23 ubuntu faasd[884]: 2023/02/15 05:12:23 - gateway
Feb 15 05:12:23 ubuntu faasd[884]: Starting: nats
Feb 15 05:12:23 ubuntu faasd[884]: Creating local directory: /var/lib/faasd/nats
Feb 15 05:12:23 ubuntu faasd[884]: 2023/02/15 05:12:23 Running nats with user: "65534"
Feb 15 05:12:25 ubuntu faasd[884]: 2023/02/15 05:12:25 Created container: nats
Feb 15 05:12:43 ubuntu faasd[884]: 2023/02/15 05:12:43 nats has IP: 10.62.0.2
Feb 15 05:12:43 ubuntu faasd[884]: 2023/02/15 05:12:43 Task: nats Container: nats
Feb 15 05:12:44 ubuntu faasd[884]: Starting: queue-worker
Feb 15 05:12:46 ubuntu faasd[884]: 2023/02/15 05:12:46 Created container: queue-worker
Feb 15 05:12:55 ubuntu faasd[884]: 2023/02/15 05:12:55 queue-worker has IP: 10.62.0.3
Feb 15 05:12:55 ubuntu faasd[884]: 2023/02/15 05:12:55 Task: queue-worker Container: queue-worker
Feb 15 05:12:56 ubuntu faasd[884]: Starting: basic-auth-plugin
Feb 15 05:12:58 ubuntu faasd[884]: 2023/02/15 05:12:58 Created container: basic-auth-plugin
Feb 15 05:13:05 ubuntu faasd[884]: 2023/02/15 05:13:05 basic-auth-plugin has IP: 10.62.0.4
Feb 15 05:13:05 ubuntu faasd[884]: 2023/02/15 05:13:05 Task: basic-auth-plugin Container: basic-auth-plugin
Feb 15 05:13:06 ubuntu faasd[884]: Starting: prometheus
Feb 15 05:13:06 ubuntu faasd[884]: Creating local directory: /var/lib/faasd/prometheus
Feb 15 05:13:06 ubuntu faasd[884]: 2023/02/15 05:13:06 Running prometheus with user: "65534"
Feb 15 05:13:08 ubuntu faasd[884]: 2023/02/15 05:13:08 Created container: prometheus
Feb 15 05:13:14 ubuntu faasd[884]: 2023/02/15 05:13:14 prometheus has IP: 10.62.0.5
Feb 15 05:13:14 ubuntu faasd[884]: 2023/02/15 05:13:14 Task: prometheus Container: prometheus
Feb 15 05:13:15 ubuntu faasd[884]: Starting: gateway
Feb 15 05:13:17 ubuntu faasd[884]: 2023/02/15 05:13:17 Created container: gateway
Feb 15 05:13:26 ubuntu faasd[884]: 2023/02/15 05:13:26 gateway has IP: 10.62.0.6
Feb 15 05:13:26 ubuntu faasd[884]: 2023/02/15 05:13:26 Task: gateway Container: gateway
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Supervisor init done in: About a minute
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Looking up IP for: "gateway"
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Resolver rebuilding map
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Resolver: "localhost"="127.0.0.1"
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Looking up IP for: "prometheus"
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 faasd: waiting for SIGTERM or SIGINT
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Resolver: "faasd-provider"="10.62.0.1"
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Resolver: "nats"="10.62.0.2"
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Resolver: "queue-worker"="10.62.0.3"
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Resolver: "basic-auth-plugin"="10.62.0.4"
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Resolver: "prometheus"="10.62.0.5"
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Resolver: "gateway"="10.62.0.6"
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Proxy from: 127.0.0.1:9090, to: prometheus:9090 (10.62.0.5)
Feb 15 05:13:27 ubuntu faasd[884]: 2023/02/15 05:13:27 Proxy from: 0.0.0.0:8080, to: gateway:8080 (10.62.0.6)
malst@ubuntu:~$
```

Obtained 40 lines of faasd logs, which determines the status of faasd.

OpenFaas UI





In the above image it can be seen there are 3 functions deployed in faasd.

Slack Interactive

In the following images it can be seen that the slack-interactive function has been invoked through the CLI and UI.

```
malst@ubuntu:~/functions$ faas-cli invoke slack-interactive
Reading from STDIN - hit (Control + D) to stop.
{"Hello": "COEN 241"}
{"attachments": [{"author_link": "https://github.com/malavikast/COEN-241--Winter-2023", "color": "#36a64f", "text": "Head over to COEN 241", "author_name": "Malavika Sreedhar Tankala", "response_type": "Testing interactive", "replace_original": true, "pretext": "Ahh yeah! Great choice, COEN 241 is absolutely amazing!", "thumb_url": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/", "title": "COEN 241", "footer": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/", "ts": 123456789, "title_link": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/", "fallback": "Required plain-text summary of the attachment.", "author_icon": "https://avatars.githubusercontent.com/malavikast"}]}
```

**OPENFAAS**

 **Deploy New Function**

Search for Function

figlet

slack-interactive

slack-request

slack-interactive

Status	Replicas	Invocation count
Not ready	1	17
Image	URL	
docker.io/malavikast/slack-interactive:latest	http://127.0.0.1:8080/function/slack-interactive	
Function process		
python index.py		

Invoke function

INVOKE

☐ Text ☒ JSON ☐ Download

Request body

{ "Hello" : "COEN 241" }

Response status	Round-trip (s)
200	15.563

Response body

{
 "attachments": [
 {
 "author_link": "https://github.com/malavikast/COEN-241--Winter-2023",
 "color": "#36a64f",
 "text": "Head over to COEN 241",
 "author_name": "Malavika Sreedhar Tankala",

{ "Hello" : "COEN 241" }

Response status	Round-trip (s)
200	15.563


Response body


{
 "attachments": [
 {
 "author_link": "https://github.com/malavikast/COEN-241--Winter-2023",
 "color": "#36a64f",
 "text": "Head over to COEN 241",
 "author_name": "Malavika Sreedhar Tankala",
 "response_type": "Testing interactive",
 "replace_original": true,
 "pretext": "Ahh yeah! Great choice, COEN 241 is absolutely amazing!",
 "thumb_url": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/",
 "title": "COEN 241",
 "footer_icon": "https://a.slack-edge.com/45901/marketing/img/_rebrand/meta/slack_hash_256.png",
 "footer": "Slack Apps built on OpenFaas",
 "ts": 123456789,
 "title_link": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/",
 "fallback": "Required plain-text summary of the attachment.",
 "author_icon": "https://avatars.githubusercontent.com/malavikast"
 }
]
}

Slack Request

In the following images it can be seen that the slack-request function has been invoked through the CLI and UI.

```
malst@ubuntu:~/functions$ faas-cli invoke slack-request
Reading from STDIN - hit (Control + D) to stop.
{"Hello": "World"}
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing level"}], "author_icon": "", "image_url": "https://avatars.githubusercontent.com/malavikast", "author_name": "Malavika Sreedhar Tankala", "title": "The awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is the most awesome class ever!", "description": "Testing the slack-request", "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"}]}
malst@ubuntu:~/functions$
```

 **OPENFAAS**

 [Deploy New Function](#)

Search for Function

figlet

slack-interactive

slack-request

slack-request

Status

Ready

Replicas

1

Invocation count

12

Image

docker.io/malavikast/slack-request:latest

URL

<http://127.0.0.1:8080/function/slack-request>

Function process

python index.py

Invoke function

☐ Text ☒ JSON ☐ Download

Request body

```
{"Hello" : "World"}
```

Response status

200

Round-trip (s)

0.936

Response body

```
{
  "text": "Serverless Message",
  "attachments": [
    {
      "fields": [
        {
          "short": true,
```

slack-request

☐ Text ☒ JSON ☐ Download

Request body

```
{ "Hello" : "World" }
```

Response status

200

Round-trip (s)

0.936

Response body

```
{
  "text": "Serverless Message",
  "attachments": [
    {
      "fields": [
        {
          "short": true,
          "value": "100",
          "title": "Amazing level"
        }
      ],
      "author_icon": " ",
      "image_url": "https://avatars.githubusercontent.com/malavikast",
      "author_name": "Malavika Sreedhar Tankala",
      "title": "The awesome world of Cloud Computing! COEN 241"
    },
    {
      "text": "COEN is the most awesome class ever!.",
      "description": "Testing the slack-request",
      "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"
}
```