

## Screenshots with Explanation

### Figlet Function

Figlet function is invoked via the faas command line interface while printing.

•

```
vik@vikram:~$ echo "Hello, World" | faas-cli invoke figlet
[Hello, World]
vik@vikram:~$
```

Figlet function is invoked via the faas user interface while printing

The screenshot shows the OpenFaaS web interface in a browser. The left sidebar contains the 'OPENFAAS' logo, a 'Deploy New Function' button, and a search bar. The main content area displays details for the 'figlet' function, including its status (Ready), replicas (2), image (ghcr.io/openfaas/figlet:latest), and URL (http://127.0.0.1:8080/function/figlet). Below this, there is an 'Invoke function' section with an 'INVOKE' button and radio buttons for 'Text', 'JSON', and 'Download'. The 'Text' option is selected, and the request body is 'Hello, World'. At the bottom, the response status is 200, the round-trip time is 0.566s, and the response body is a ASCII art representation of 'Hello, World'.

Status	Replicas	Invocation count
Ready	2	

Image	URL
ghcr.io/openfaas/figlet:latest	http://127.0.0.1:8080/function/figlet

Function process

figlet

Invoke function

☒ Text ☐ JSON ☐ Download

Request body

Hello, World

Response status	Round-trip (s)
200	0.566

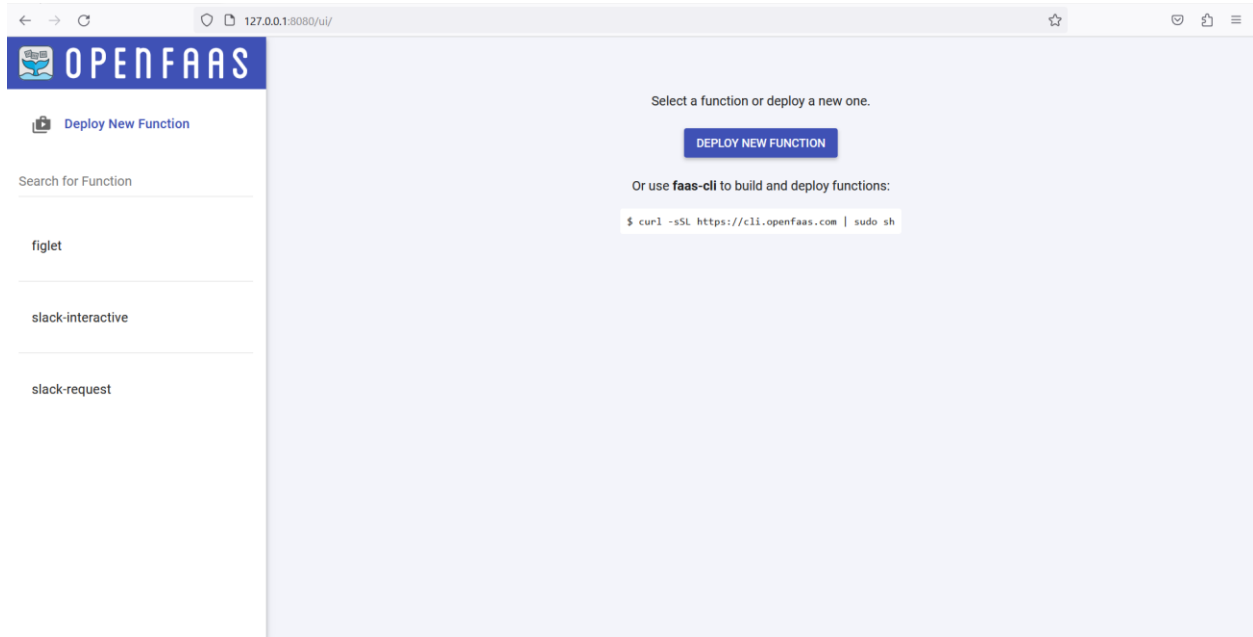
Response body

```
[Hello, World]
```

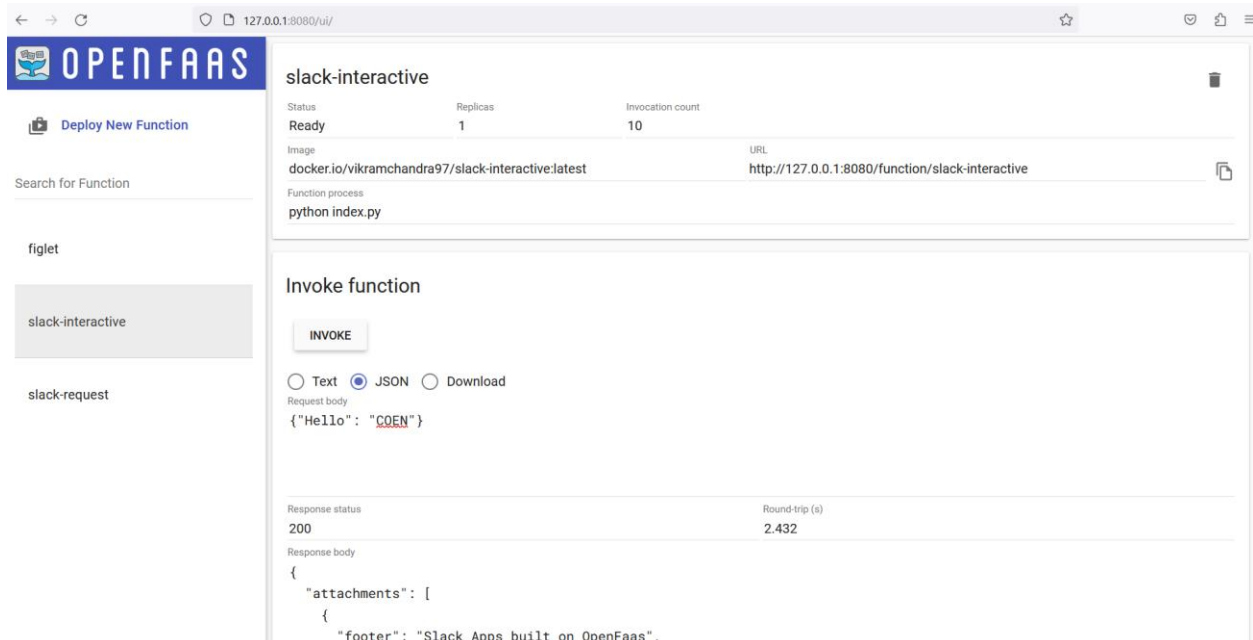
Image below gives first 40 lines of logs, which determines the status of faasd.

```
vik@vikram:~$ sudo journalctl -u faasd --lines 40
[sudo] password for vik:
-- Logs begin at Mon 2023-02-13 22:31:50 UTC, end at Wed 2023-02-15 20:55:02 UTC. --
Feb 15 20:23:10 vikram faasd[854]: 2023/02/15 20:23:10 - gateway
Feb 15 20:23:10 vikram faasd[854]: 2023/02/15 20:23:10 - queue-worker
Feb 15 20:23:10 vikram faasd[854]: Starting: basic-auth-plugin
Feb 15 20:23:14 vikram faasd[854]: 2023/02/15 20:23:14 Created container: basic-auth-plugin
Feb 15 20:23:36 vikram faasd[854]: 2023/02/15 20:23:36 basic-auth-plugin has IP: 10.62.0.2
Feb 15 20:23:36 vikram faasd[854]: 2023/02/15 20:23:36 Task: basic-auth-plugin Container: basic-auth-plugin
Feb 15 20:23:37 vikram faasd[854]: Starting: nats
Feb 15 20:23:37 vikram faasd[854]: Creating local directory: /var/lib/faasd/nats
Feb 15 20:23:37 vikram faasd[854]: 2023/02/15 20:23:37 Running nats with user: "65534"
Feb 15 20:23:40 vikram faasd[854]: 2023/02/15 20:23:40 Created container: nats
Feb 15 20:23:47 vikram faasd[854]: 2023/02/15 20:23:47 nats has IP: 10.62.0.3
Feb 15 20:23:47 vikram faasd[854]: 2023/02/15 20:23:47 Task: nats Container: nats
Feb 15 20:23:47 vikram faasd[854]: Starting: prometheus
Feb 15 20:23:47 vikram faasd[854]: Creating local directory: /var/lib/faasd/prometheus
Feb 15 20:23:47 vikram faasd[854]: 2023/02/15 20:23:47 Running prometheus with user: "65534"
Feb 15 20:23:49 vikram faasd[854]: 2023/02/15 20:23:49 Created container: prometheus
Feb 15 20:23:55 vikram faasd[854]: 2023/02/15 20:23:55 prometheus has IP: 10.62.0.4
Feb 15 20:23:55 vikram faasd[854]: 2023/02/15 20:23:55 Task: prometheus Container: prometheus
Feb 15 20:23:55 vikram faasd[854]: Starting: gateway
Feb 15 20:24:00 vikram faasd[854]: 2023/02/15 20:24:00 Created container: gateway
Feb 15 20:24:07 vikram faasd[854]: 2023/02/15 20:24:07 gateway has IP: 10.62.0.5
Feb 15 20:24:07 vikram faasd[854]: 2023/02/15 20:24:07 Task: gateway Container: gateway
Feb 15 20:24:07 vikram faasd[854]: Starting: queue-worker
Feb 15 20:24:08 vikram faasd[854]: 2023/02/15 20:24:08 Created container: queue-worker
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 queue-worker has IP: 10.62.0.6
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Task: queue-worker Container: queue-worker
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Supervisor init done in: About a minute
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Looking up IP for: "gateway"
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Resolver rebuilding map
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Resolver: "localhost"="127.0.0.1"
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Resolver: "faasd-provider"="10.62.0.1"
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Resolver: "basic-auth-plugin"="10.62.0.2"
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Resolver: "nats"="10.62.0.3"
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Resolver: "prometheus"="10.62.0.4"
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Resolver: "gateway"="10.62.0.5"
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Resolver: "queue-worker"="10.62.0.6"
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Looking up IP for: "prometheus"
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Proxy from: 127.0.0.1:9090, to: prometheus:9090 (10.62.0.4)
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 faasd: waiting for SIGTERM or SIGINT
Feb 15 20:24:13 vikram faasd[854]: 2023/02/15 20:24:13 Proxy from: 0.0.0.0:8080, to: gateway:8080 (10.62.0.5)
vik@vikram:~$
```

## List of functions deployed in Faasd:



## Invoking Slack-Interactive Function from the UI



```

    "footer": "Slack Apps built on OpenFaas",
    "author_link": "https://github.com/SreevikramChandrasekhar/COEN-241--Winter-2023",
    "color": "#36a64f",
    "text": "Head over to COEN 241",
    "title": "COEN 241",
    "ts": 123456789,
    "author_name": "Sreevikram Chandrasekhar",
    "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-ap-seals/Mission-Dont3.png",
    "response_type": "Testing interactive",
    "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 interactive testing - 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/SreevikramChandrasekhar"
  }
}
}

```

## Invoking Slack-Interactive from CLI

```

vik@vikram:~/functions$ faas-cli invoke slack-interactive
Reading from STDIN - hit (Control + D) to stop.
{"Hello": "Testing"}
{"attachments": [{"footer": "Slack Apps built on OpenFaas", "author_link": "https://github.com/SreevikramChandrasekhar/COEN-241-
Winter-2023", "color": "#36a64f", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "Sreevi
kram Chandrasekhar", "title_link": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduat
e/course-descriptions/", "image_url": "https://www.scu.edu/media/offices/umc/scu-brand-guidelines/visual-identity-amp-photograph
y/visual-identity-toolkit/logos-ap-seals/Mission-Dont3.png", "response_type": "Testing interactive", "replace_original": true, "
footer_icon": "https://a.slack-edge.com/45901/marketing/img/_rebrand/meta/slack_hash_256.png", "pretext": "Ahh yeah! Great Choic
e, COEN 241 is absolutely amazing!", "fallback": "Required interactive testing - 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/SreevikramChandrasekhar"}]}
vik@vikram:~/functions$

```

## Invoking Slack-Request from the UI

The screenshot displays the OpenFaaS web interface. On the left sidebar, the 'slack-request' function is selected. The main panel shows the function's status as 'Ready' with 1 replica and 4 invocation counts. Below this, the 'Invoke function' section is active, showing a request body of `{\"Hello\": \"World\"}` and a response body that is partially visible, showing a Slack message structure.

**Function Details:**

Status	Replicas	Invocation count
Ready	1	4

**Image:** `docker.io/vikramchandra97/slack-request-latest`

**URL:** `http://127.0.0.1:8080/function/slack-request`

**Function process:** `python index.py`

**Invoke function:**

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**Request body:**

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

**Response status:** 200 **Round-trip (s):** 1.221

**Response body:**

```
{  \"text\": \"Serverless Message\",  \"attachments\": [    {      \"fields\": [        {          \"short\": true,          \"value\": \"100\",          \"title\": \"Amazing Level\"        }      ],      \"author_icon\": \"\",      \"image_url\": \"https://avatars.githubusercontent.com/SreevikramChandrasekhar\",      \"author_name\": \"Sreevikram Chandrasekhar\",      \"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\"    },    {      \"title\": \"Would you recommend COEN 241 to your friends?\",      \"color\": \"#3AA3E3\",
```

```

    "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"
  }
}
}

```

## Invoking Slack-Request from CLI

```

vik@vikram:~/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_i
con": " ", "image_url": "https://avatars.githubusercontent.com/SreevikramChandrasekhar", "author_name": "Sreevikram Chandrasekha
r", "title": "The Awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is the most awesome class ever!", "descripti
on": "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 Def
initely!", "type": "button", "name": "definitely", "value": "definitely"}], "callback_id": "response123", "fallback": "Would you
recommend COEN 241 to your friends?", "attachment_type": "default"}]}
vik@vikram:~/functions$

```