HW 2 Report

Step 6 : Questions

1. **What is the command to invoke the slack-request function?**

    a. Via Curl :
    curl http://127.0.0.1:8080/function/slack-request

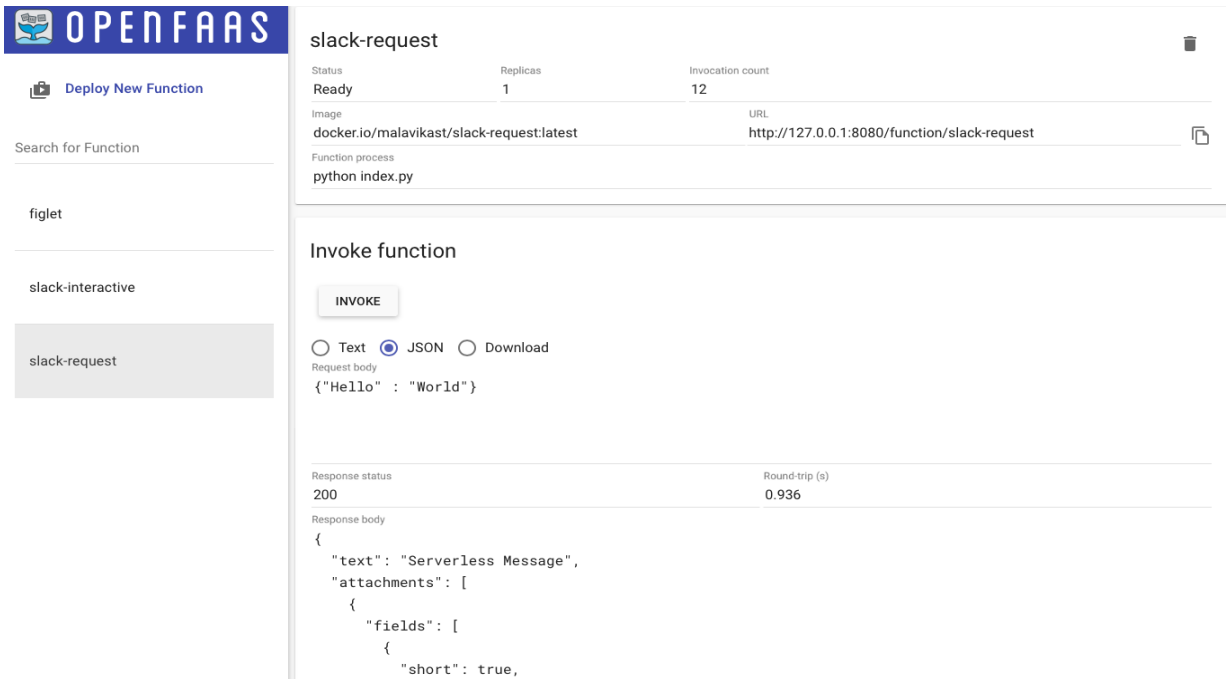
    b. Via faas-cli:
    faas-cli invoke slack-request

2. **What is the output you see when you invoke the slack-request function?**

CLI:

```
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:/
/avatarsgithubusercontent.com/malavikast", "author_name": "Malavika Sreedhar Tankala", "title": "The awesome world of Cloud Computing! COEN 241"}, {"text": "COE
N is the mos t awesome class ever!.", "description": "Testing the slack-request", "title": "About COEN 241"}, {"title": "Would you recommend COEN 241 to your fr
iends?", "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?", "attachmen
t_type": "default"}]}
malst@ubuntu:~/functions$
```

UI:



slack-request

Text JSON Download

Request body

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

Response status	Round-trip (s)
200	0.936

Response body


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

3. What is the command to invoke the slack-interactive function?

c. Via Curl :
curl http://127.0.0.1:8080/function/slack-interactive

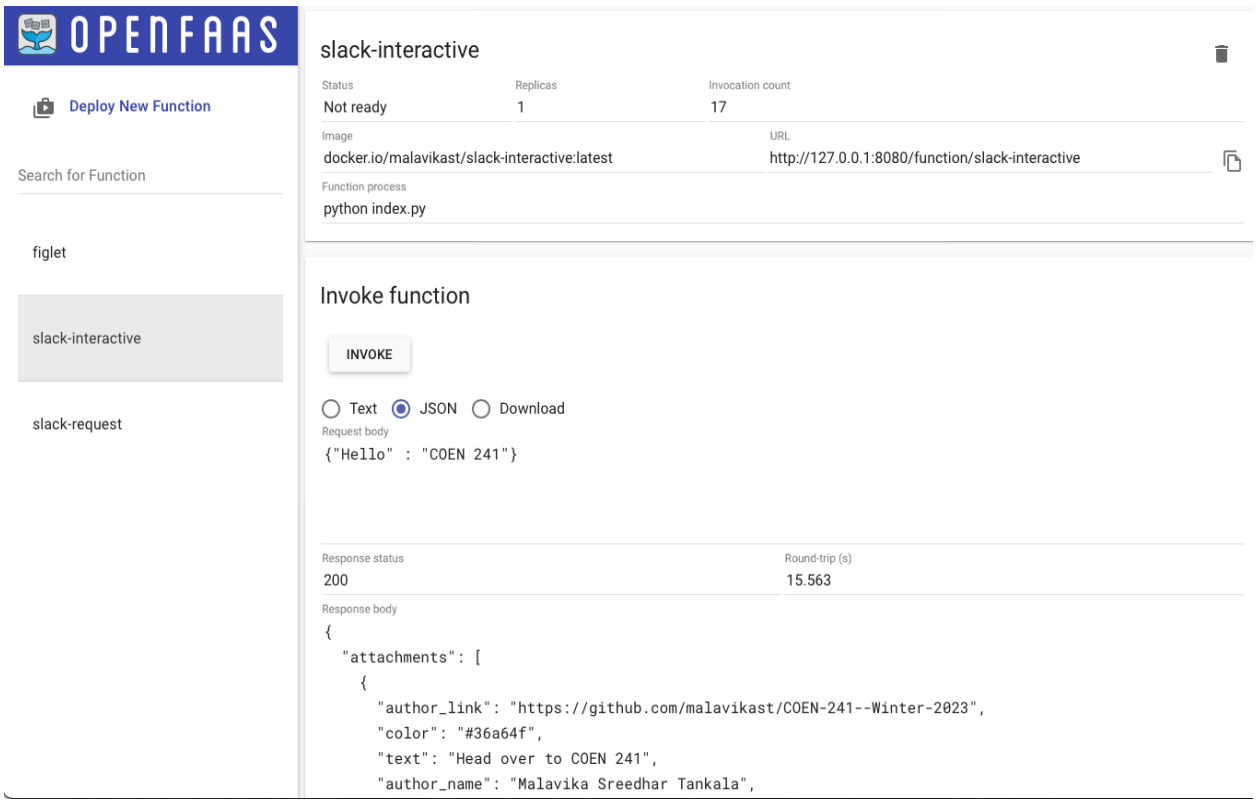
d. Via faas-cli:
faas-cli invoke slack-interactive

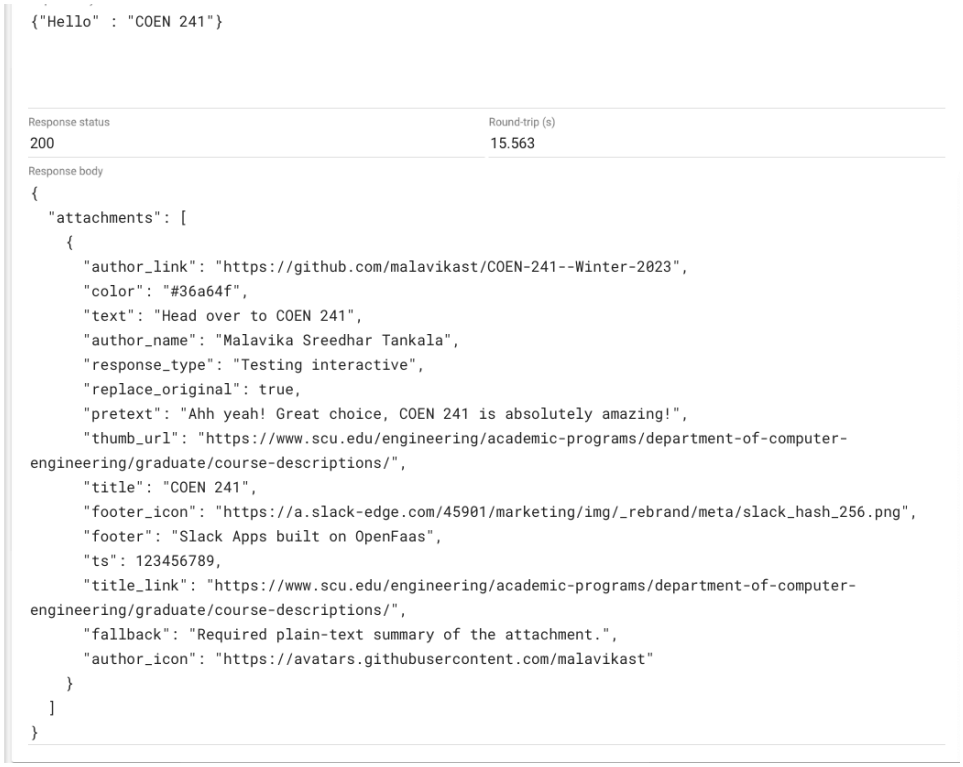
4. What is the output you see when you invoke the slack-interactive function?

CLI:

```
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": "Mal
avika 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"}]}
malst@ubuntu:~/functions$ _
```

UI:





5. How would you pass different arguments to the functions?

There are 2 ways to pass different arguments to the functions:

1. Via echo:
   echo <JSON String> | faas-cli invoke <function>

2. Via STDIN:
   curl http://127.0.0.1:8080/function/<function> -d <data string>

6. How would you change the slack-interactive function to react to different inputs?

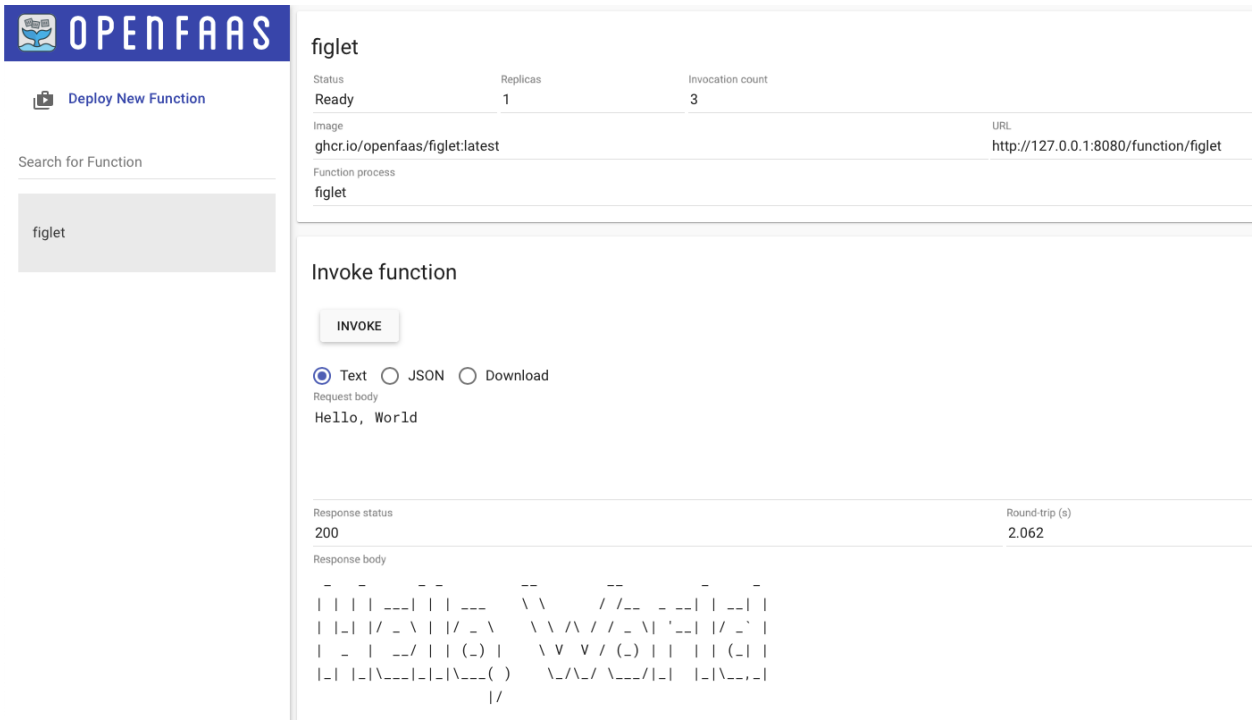
In order to process various inputs, we need to obtain the request string and format it correctly in JSON. This can be done by using the json.load() function to convert the input to a valid JSON string, and then adding it to the dictionary element in the handler.py file. The resulting values are stored in the response, which can be returned using json.dumps().

Step 7:

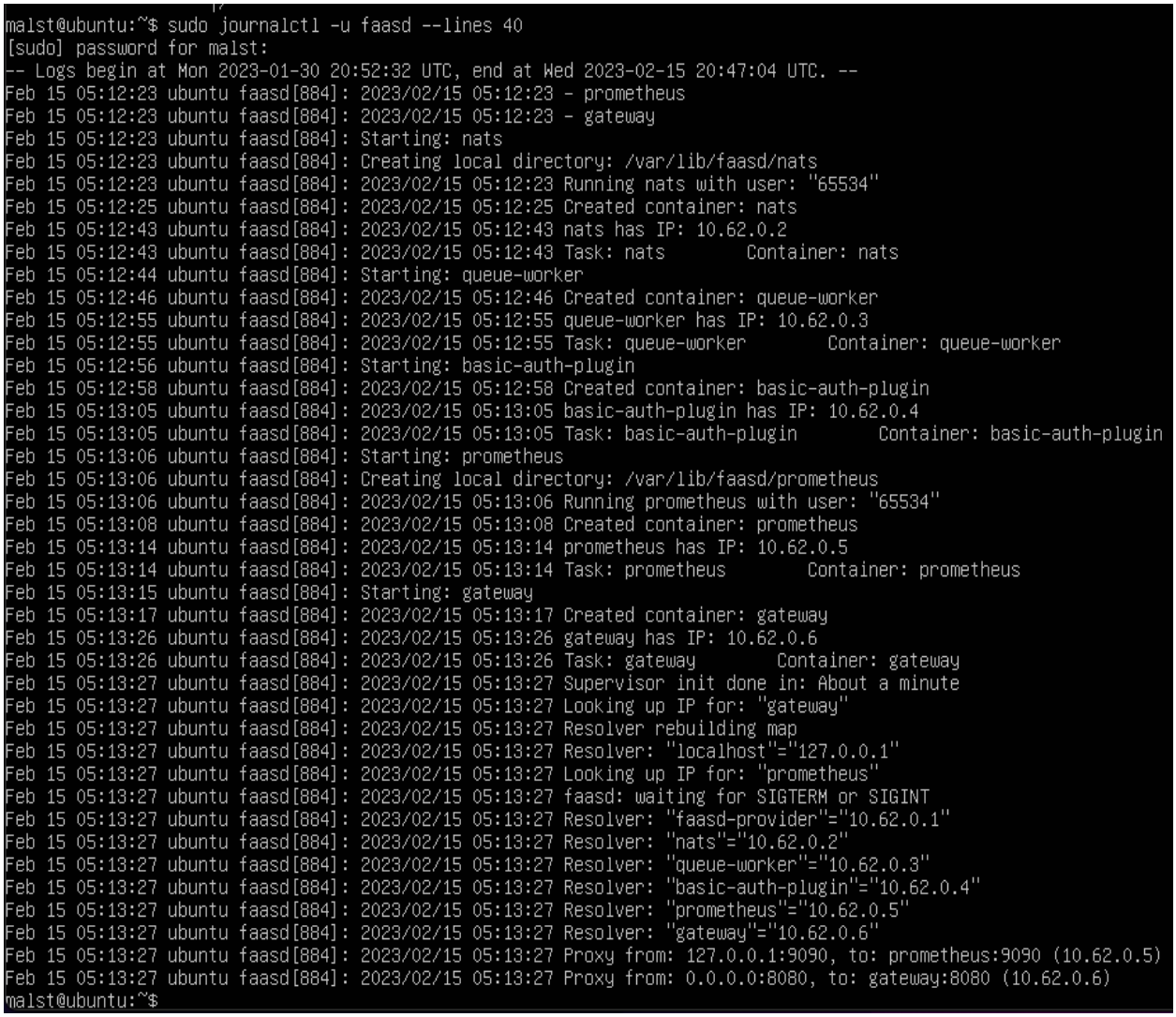
- **Provide a screenshot of invoking the figlet function.**

  CLI:

  UI:

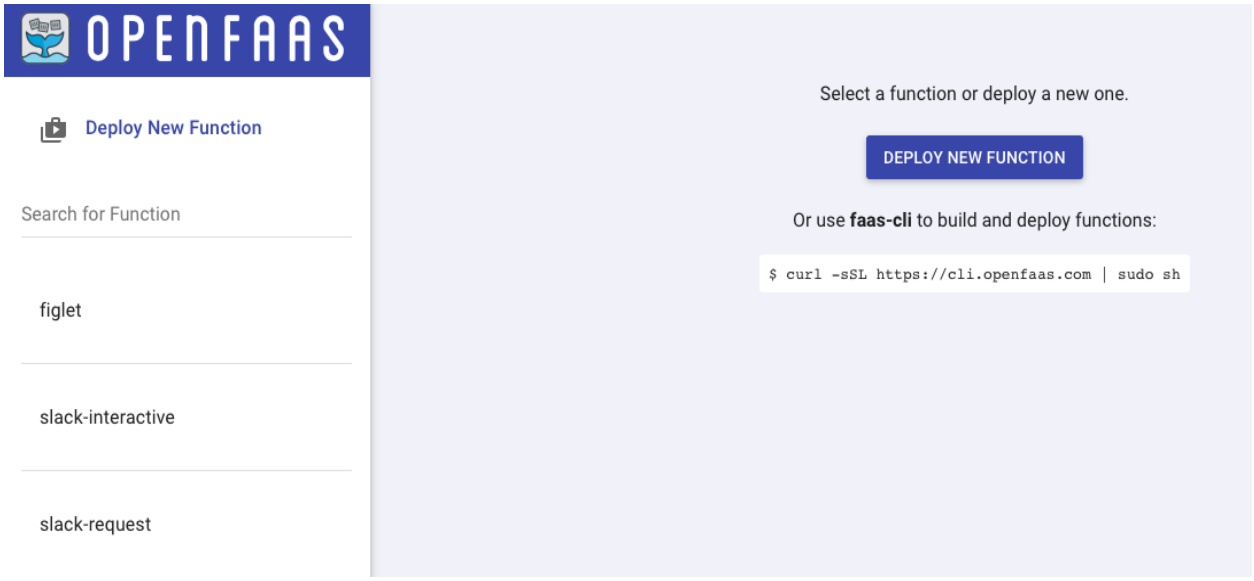


- **Provide a screenshot of running the following command**
  sudo journalctl -u faasd –lines 40



```
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:~$
```

- **Provide a screenshot of OpenFaas gateway after deploying the figlet, slack-request and slack-interactive functions.**



- **Provide a screenshot of invoking slack-request and slack interactive functions.**

  slack-request:

  CLI

```
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:/
/avatarsgithubusercontent.com/malavikast", "author_name": "Malavika Sreedhar Tankala", "title": "The awesome world of Cloud Computing! COEN 241"}, {"text": "COE
N is the mos t awesome class ever!.", "description": "Testing the slack-request", "title": "About COEN 241"}, {"title": "Would you recommend COEN 241 to your fr
iends?", "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?", "attachmen
t_type": "default"}]}
malst@ubuntu:~/functions$
```

  UI

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

INVOKE

(•) 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://avatarsgithubusercontent.com/malavikast",
      "author_name": "Malavika Sreedhar Tankala",
      "title": "The awesome world of Cloud Computing! COEN 241"
    },
    {
      "text": "COEN is the mos t awesome class ever!.",
      "description": "Testing the slack-request",
      "title": "About COEN 241"
    },
```

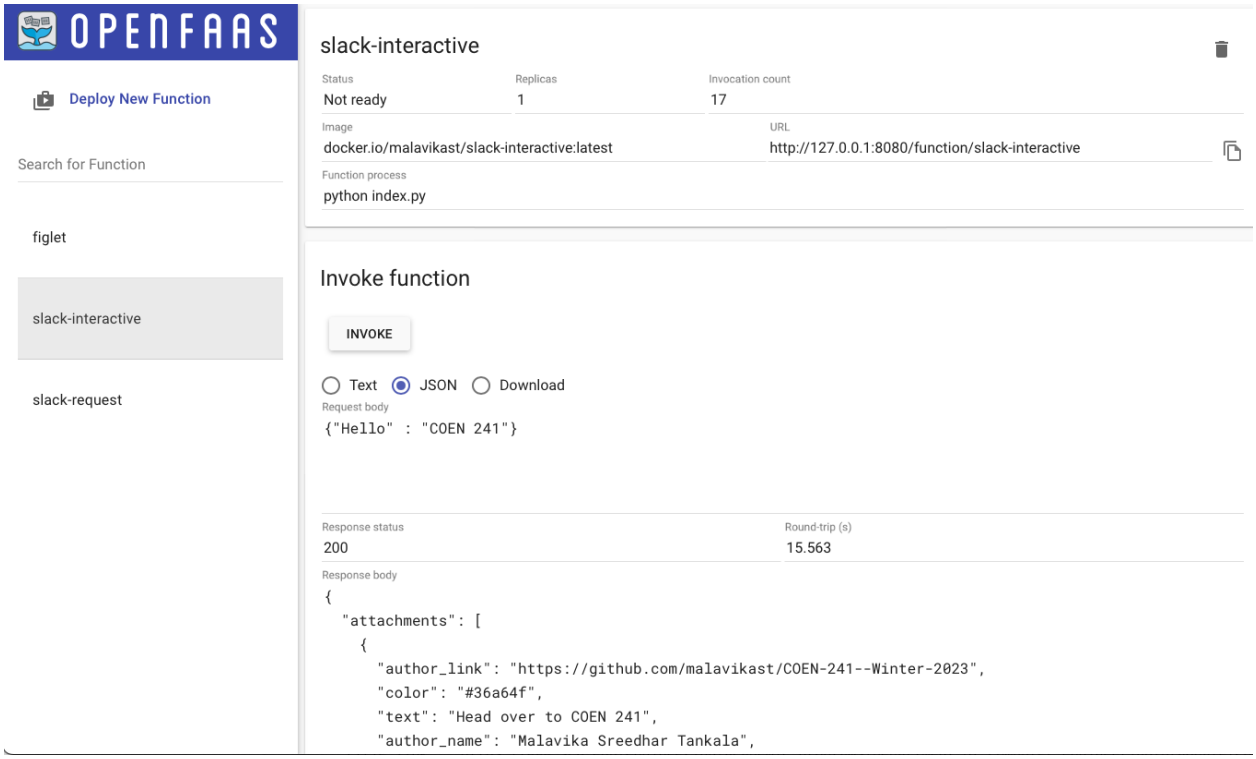
```
      "title": "The awesome world of Cloud Computing! COEN 241"
    },
    {
      "text": "COEN is the mos t awesome class ever!.",
      "description": "Testing the slack-request",
      "title": "About COEN 241"
    },
    {
      "title": "Would you recommend COEN 241 to your friends?",
      "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"
    }
  ]
}
```

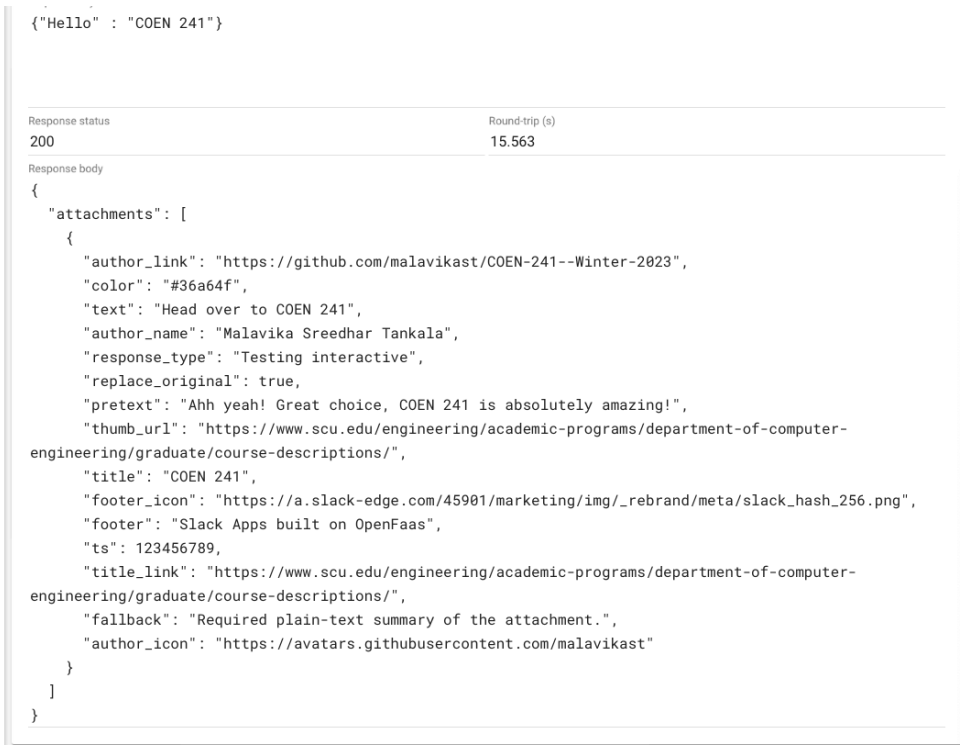

slack-interactive :

CLI


```
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": "Mal
avika 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"}]}
malst@ubuntu:~/functions$ _
```

UI


OPENFAAS
Deploy New Function
Search for Function
figlet
slack-interactive
slack-request
slack-interactive
Status
Not ready
Replicas
1
Invocation count
17
Image
docker.io/malavikast/slack-interactive:latest
URL
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
200
Round-trip (s)
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
200
Round-trip (s)
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"
}
]
}