

```
ziyan@ziyan: ~  
nslookup          Query the nameserver for the IP address...  
ASCII Cows       Generate a random ASCII cow  
  
ziyan@ziyan:~$ # Deploy figlet  
ziyan@ziyan:~$ faas-cli store deploy figlet  
  
Deployed. 200 OK.  
URL: http://127.0.0.1:8080/function/figlet  
  
ziyan@ziyan:~$ # Find the URLs for the function  
ziyan@ziyan:~$ faas-cli store inspect figlet  
Info for: Figlet  
  
Name           figlet  
Description    Generate ASCII logos with the figlet CLI  
Image         ghcr.io/openfaas/figlet:latest  
Process      figlet  
Repo URL     https://github.com/openfaas/store-functions  
  
ziyan@ziyan:~$ # Create some ASCII  
ziyan@ziyan:~$ echo "Hello, FaaS, world" | faas-cli invoke figlet  
  
[H][E][L][L][O], [F][A][A][S], w[o]rld!  
[H][E][L][L][O], [F][A][A][S], w[o]rld!
```

Fig1 Invoke figlet

```

1 import json
2
3 def handle(req):
4     data = {
5         "text": "Serverless Message",
6         "attachments": [{
7             "title": "The Awesome world of Cloud Computing! COEN 241",
8             "fields": [{
9                 "title": "Amazing Level",
10                "value": "100",
11                "short": True
12            }],
13            "author_name": "<Ziyan Zhang>",
14            "author_icon": "|",
15            "image_url": "https://avatars.githubusercontent.com/zzy0125"
16        },
17        {
18            "title": "About COEN 241",
19            "text": "COEN 241 is the most awesome class ever!."
20        },
21        {
22            "fallback": "Would you recommend COEN 241 to your friends?",
23            "title": "Would you recommend COEN 241 to your friends?",
24            "callback_id": "response123",
25            "color": "#3AA3AE3",
26            "attachment_type": "default",
27            "actions": [
28                {
29                    "name": "recommend",
30                    "text": "Of Course!",
31                    "type": "button",
32                    "value": "recommend"
33                },
34                {
35                    "name": "definitely",
36                    "text": "Most Definitely!",
37                    "type": "button",
38                    "value": "definitely"
39                }
40            ]
41        }
42    ]
43    return json.dumps(data)

```

Fig2 slack-request/handler.py

```

1 import json
2 import urllib
3
4 def handle(req):
5     urlstring = urllib.unquote(req).decode('utf8').strip('payload=')
6     response = json.loads(urlstring)
7     data = {
8         "attachments": [
9             {
10                "replace_original": True,
11                "response_type": "ephemeral",
12                "fallback": "Required plain-text summary of the attachment.",
13                "color": "#36a64f",
14                "pretext": "Ahh yeah! Great choice, COEN 241 is absolutely amazing!",
15                "author_name": "Ziyan Zhang",
16                "author_link": "https://github.com/zzy0125/COEN241",
17                "author_icon": "https://avatars.githubusercontent.com/zzy0125",
18                "title": "COEN 241",
19                "title_link": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/-course-descriptions/",
20                "text": "Head over to COEN 241",
21                "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",
22                "thumb_url": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/",
23                "footer": "Slack Apps built on OpenFaas",
24                "footer_icon": "https://a.slack-edge.com/45901/marketing/img/-rebrand/meta/slack_hash_256.png",
25                "ts": 123456789
26            }
27        ]
28    }
29    return json.dumps(data)

```

Fig3 slack-interactive/handler.py

```

ziyan@ziyan:~$ sudo journalctl -u faasd --lines 40
[sudo] password for ziyan:
-- Logs begin at Sun 2022-10-30 00:50:21 UTC, end at Tue 2022-11-01 01:18:01 UTC.
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 - gateway
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 - queue-worker
Oct 31 22:30:01 ziyan faasd[775]: Starting: prometheus
Oct 31 22:30:01 ziyan faasd[775]: Creating local directory: /var/lib/faasd/prom>
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 Running prometheus with u>
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 Created container: prome>
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 prometheus has IP: 10.62.>
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 Task: prometheus C>
Oct 31 22:30:01 ziyan faasd[775]: Starting: basic-auth-plugin
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 Created container: basic->
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 basic-auth-plugin has IP:>
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 Task: basic-auth-plugin >
Oct 31 22:30:01 ziyan faasd[775]: Starting: nats
Oct 31 22:30:01 ziyan faasd[775]: Creating local directory: /var/lib/faasd/nats
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 Running nats with user: ">
Oct 31 22:30:01 ziyan faasd[775]: 2022/10/31 22:30:01 Created container: nats
Oct 31 22:30:02 ziyan faasd[775]: 2022/10/31 22:30:02 nats has IP: 10.62.0.4
Oct 31 22:30:02 ziyan faasd[775]: 2022/10/31 22:30:02 Task: nats Contain>
Oct 31 22:30:02 ziyan faasd[775]: Starting: gateway
Oct 31 22:30:02 ziyan faasd[775]: 2022/10/31 22:30:02 Created container: gateway
Oct 31 22:30:02 ziyan faasd[775]: 2022/10/31 22:30:02 gateway has IP: 10.62.0.5
Oct 31 22:30:02 ziyan faasd[775]: 2022/10/31 22:30:02 Task: gateway Cont>
lines 1-23

```

Fig4 sudo journalctl -u faasd --lines 40

```

ziyan@ziyan:~/functions$ faas-cli invoke slack-interactive.yml
Reading from STDIN - hit (Control + D) to stop.
Server returned unexpected status code: 404 - error finding function slack-inter
active.yml: server returned non-200 status code (400) for function, slack-intera
ctive, body: namespace not valid

ziyan@ziyan:~/functions$ faas-cli invoke slack-request.yml
Reading from STDIN - hit (Control + D) to stop.
Server returned unexpected status code: 404 - error finding function slack-reque
st.yml: server returned non-200 status code (400) for function, slack-request, b
ody: namespace not valid

```

Fig5 Invoke slack-\*

It failed in that I can build and push slack-\*.yml, but couldn't deploy it. The results are shown below.

```

ziyan@ziyan:~/functions$ sudo faas-cli deploy -f ./slack-interactive.yml
Deploying: slack-interactive.

unauthorized access, run "faas-cli login" to setup authentication for this server

Function 'slack-interactive' failed to deploy with status code: 401
ziyan@ziyan:~/functions$

```

Fig6 Failed to deploy slack-interactive

```

15714e3be781: Pushed
08ad508c310e: Pushed
ec8356a34759: Pushed
294ac687b5fc: Pushed
latest: digest: sha256:4200a828a6588a49c2b8ff0f2e0f80c52a405c86c6fc2c44b5da26466
5453611 size: 4693
[0] < Pushing slack-request [encores408/slack-request:latest] done.
[0] Worker done.

Deploying: slack-request.

unauthorized access, run "faas-cli login" to setup authentication for this server

Function 'slack-request' failed to deploy with status code: 401
ziyan@ziyan:~/functions$

```

Fig7 Failed to deploy slack-request

I tried several ways to login, including running various commands, restarting VM and laptop, but magic didn't happen. The results are shown as below.

```

ziyan@ziyan:~/faasd$ faas-cli login --username admin --password-stdin

```

Fig8 Failed to login

```

ziyan@ziyan:~$ faas-cli login -u admin --password lesXItn34FHYnwxZvWXUFp0a3qJvv4
W7vQUwgdOiXnGJ1nZzQRQyWbBW8A0kU3z
WARNING! Using --password is insecure, consider using: cat ~/faas_pass.txt | faas-
cli login -u user --password-stdin
Calling the OpenFaaS server to validate the credentials...
credentials saved for admin http://127.0.0.1:8080
ziyan@ziyan:~$

```

Fig9 Failed to login

```

ziyan@ziyan:~/faasd$ faas-cli list
Function      Invocations  Replicas
figlet        0            0
ziyan@ziyan:~/faasd$

```

Fig10 After deploy