

```
wuyuz99@wuyuz99:~/functions$ echo "Hello COEN241 form Isaac" | faas-cli invoke figlet
```




Fig.1 figlet working

```
wuyuz99@wuyuz99:~/functions$ sudo journalctl -u faasd --lines 40
[sudo] password for wuyuz99:
-- Journal begins at Thu 2021-10-07 10:12:44 PDT, ends at Wed 2021-11-10 20:24:17 PST. --
Nov 10 12:34:18 wuyuz99 faasd[857]: 2021/11/10 12:34:18 Start-up order:
Nov 10 12:34:18 wuyuz99 faasd[857]: 2021/11/10 12:34:18 - nats
Nov 10 12:34:18 wuyuz99 faasd[857]: 2021/11/10 12:34:18 - queue-worker
Nov 10 12:34:18 wuyuz99 faasd[857]: 2021/11/10 12:34:18 - basic-auth-plugin
Nov 10 12:34:18 wuyuz99 faasd[857]: 2021/11/10 12:34:18 - prometheus
Nov 10 12:34:18 wuyuz99 faasd[857]: 2021/11/10 12:34:18 - gateway
Nov 10 12:34:18 wuyuz99 faasd[857]: Starting: nats
Nov 10 12:34:18 wuyuz99 faasd[857]: 2021/11/10 12:34:18 Created container: nats
Nov 10 12:34:18 wuyuz99 faasd[857]: 2021/11/10 12:34:18 nats has IP: 10.62.0.2
Nov 10 12:34:18 wuyuz99 faasd[857]: 2021/11/10 12:34:18 Task: nats Container: nats
Nov 10 12:34:18 wuyuz99 faasd[857]: Starting: queue-worker
Nov 10 12:34:18 wuyuz99 faasd[857]: 2021/11/10 12:34:18 Created container: queue-worker
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 queue-worker has IP: 10.62.0.3
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Task: queue-worker Container: queue-worker
Nov 10 12:34:19 wuyuz99 faasd[857]: Starting: basic-auth-plugin
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Created container: basic-auth-plugin
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 basic-auth-plugin has IP: 10.62.0.4
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Task: basic-auth-plugin Container: basic-auth-plugin
Nov 10 12:34:19 wuyuz99 faasd[857]: Starting: prometheus
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Created container: prometheus
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 prometheus has IP: 10.62.0.5
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Task: prometheus Container: prometheus
Nov 10 12:34:19 wuyuz99 faasd[857]: Starting: gateway
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Created container: gateway
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 gateway has IP: 10.62.0.6
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Task: gateway Container: gateway
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Supervisor init done in: 1.884439842s
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Looking up IP for: "prometheus"
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Resolver rebuilding map
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Looking up IP for: "gateway"
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Resolver: "localhost"="127.0.0.1"
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Resolver: "faasd-provider"="10.62.0.1"
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Resolver: "nats"="10.62.0.2"
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Resolver: "queue-worker"="10.62.0.3"
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Resolver: "basic-auth-plugin"="10.62.0.4"
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Resolver: "prometheus"="10.62.0.5"
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Resolver: "gateway"="10.62.0.6"
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 Proxy from: 0.0.0.0:8080, to: gateway:8080 (10.62.0.6)
Nov 10 12:34:19 wuyuz99 faasd[857]: 2021/11/10 12:34:19 faasd: waiting for SIGTERM or SIGINT
Nov 10 12:34:20 wuyuz99 faasd[857]: 2021/11/10 12:34:20 Proxy from: 127.0.0.1:9090, to: prometheus:9090 (10.62.0.5)
```

Fig.2 journalctl faasd

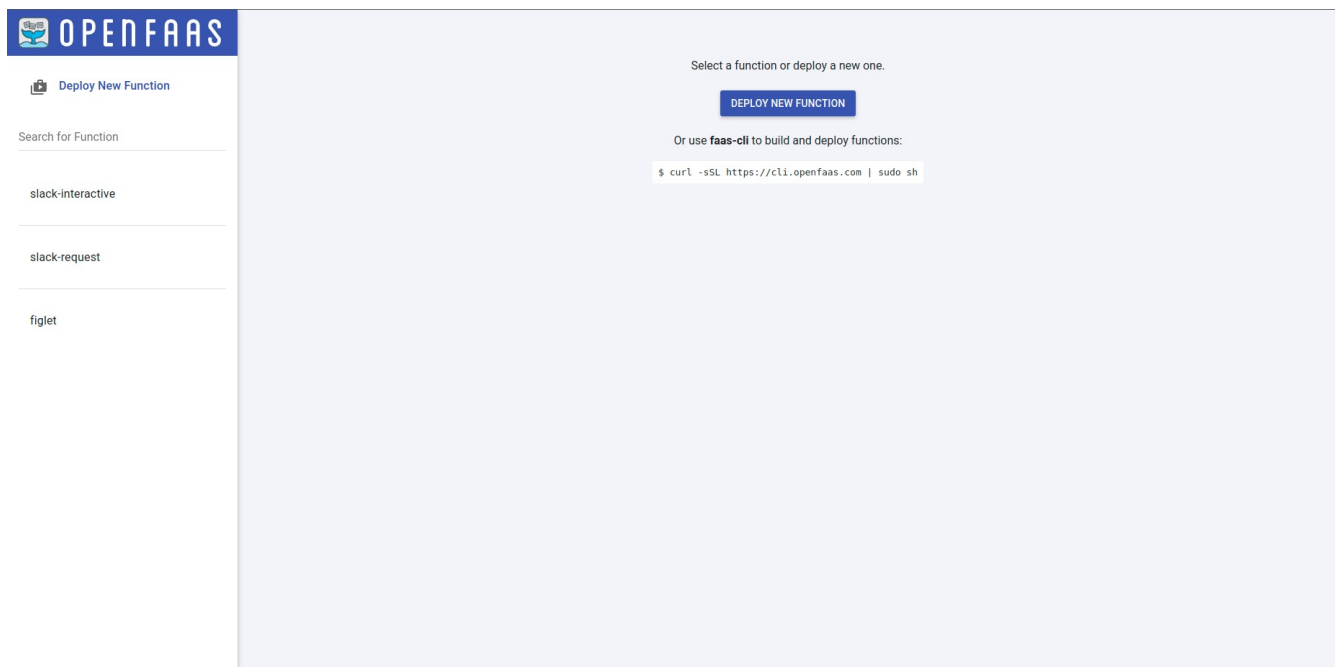


Fig.3 FaaS gateway

```
wuyuz99@wuyuz99:~/functions$ echo "" | faas-cli invoke slack-request
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "wuyuz99/slack-request", "author_name": "Yuzheng Wu", "title": "The Awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is the most awesome class ever!", "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"}]}
```

Fig.4 slack-request in terminal

```
wuyuz99@wuyuz99:~/functions$ echo '{"HELLO": "COEN241"}' | faas-cli invoke slack-interactive
{"attachments": [{"footer": "Slack Apps built on OpenFaas", "author_link": "https://github.com/wuyuz99", "color": "#36a64f", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "Yuzheng Wu", "title_link": "https://www.scu.edu/engineering/academic-programs/departments-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-amp-seals/Mission-Dont3.png", "response_type": "ephemeral", "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 plain-text summary of the attachment.", "thumb_url": "https://www.scu.edu/engineering/academic-programs/departments-of-computer-engineering/graduate/course-descriptions/", "author_icon": "https://avatars.githubusercontent.com/u/49510556?s=400&v=4"}]}
```

Fig.5 slack-interactive in terminal

```
es Terminal Nov 10 21:09 wuyuz99@wuyuz99: ~

ngrok by @inconshreveable

Session Status      online
Account             ywu4@scu.edu (Plan: Free)
Version             2.3.40
Region              United States (us)
Web Interface       http://127.0.0.1:4040
Forwarding           http://72fe-2601-647-4000-e6d0-5c66-5c9-38c7-a8b6.ngrok.io -> http://localhost:8080
Forwarding           https://72fe-2601-647-4000-e6d0-5c66-5c9-38c7-a8b6.ngrok.io -> http://localhost:8080

Connections          ttl    opn    rt1    rt5    p50    p90
23                3      0.02   0.01   25.93   61.45

HTTP Requests
-----
POST /function/slack-interactive 200 OK
POST /function/slack-request     200 OK
POST /function/slack-interactive 200 OK
POST /function/slack-request     200 OK
POST /function/slack-interactive 200 OK
POST /function/slack-request     200 OK
POST /function/slack-interactive 200 OK
POST /function/slack-request     200 OK
POST /function/slack-interactive 200 OK
POST /function/slack-request     200 OK
POST /function/slack-request     200 OK
```

Fig.6 ngrok running

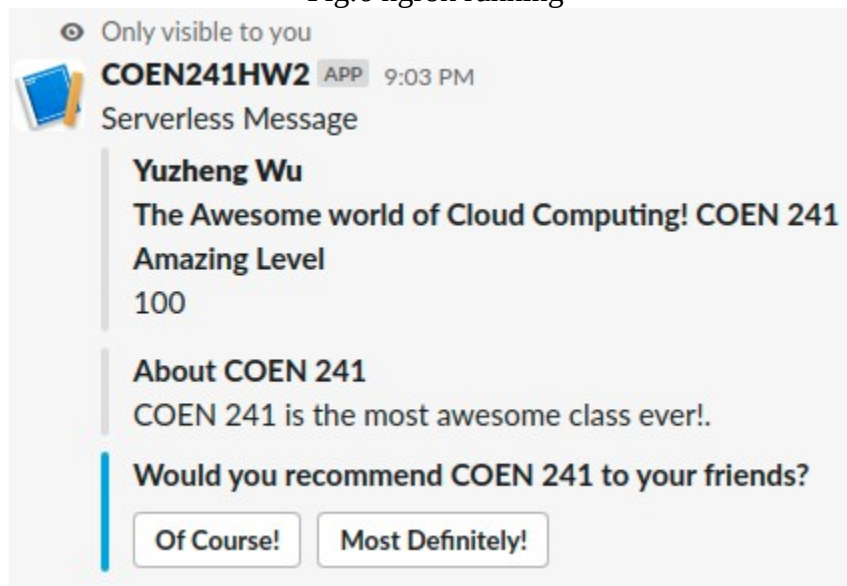



Fig.7 slack-request in slack



**COEN241HW2** APP 9:07 PM

Ahh yeah! Great choice, COEN 241 is absolutely amazing!

 **Yuzheng Wu**

**COEN 241**

Head over to COEN 241



Slack Apps built on OpenFaas | Nov 29th, 1973 (16 kB) ▾



Fig8. slack-interactive in slack