

Q1. What is the command to invoke slack-request function?

- Via curl
- Via faas-cli

Ans.

Via curl – `curl -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/function/slack-request`

Via faas-cli – `faas-cli invoke slack-request`

Q2. What is the output you see when you invoke the slack-request function?

Ans . We get the following outputs after invoking via both curl and slack.

```
qemu — qemu-system-aarch64 -serial stdio -M virt,highmem=off -accel hvf -cpu host -smp 4 -m 300...
[root@shubham:~/functions# faas-cli invoke slack-request
Reading from STDIN - hit (Control + D) to stop.
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/SkilletElveti.png", "author_name": "Shubham Kamdi", "title": "The Awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is my favourite class and I enjoy it!.", "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"}]}
root@shubham:~/functions#
```

```
qemu — qemu-system-aarch64 -serial stdio -M virt,highmem=off -accel hvf -cpu host -smp 4 -m 300...
root@shubham:~/functions# curl -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/function/slack-interactive
url -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/function/slack-request
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/SkilletElveti.png", "author_name": "Shubham Kamdi", "title": "The Awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is my favourite class and I enjoy it!.", "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"}]}
root@shubham:~/functions#
```

Q3. What is the command to invoke slack-interactive function via curl and faas-cli?

Ans. curl - curl -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/function/slack-interactive

faas-cli – faas-cli invoke slack-interactive

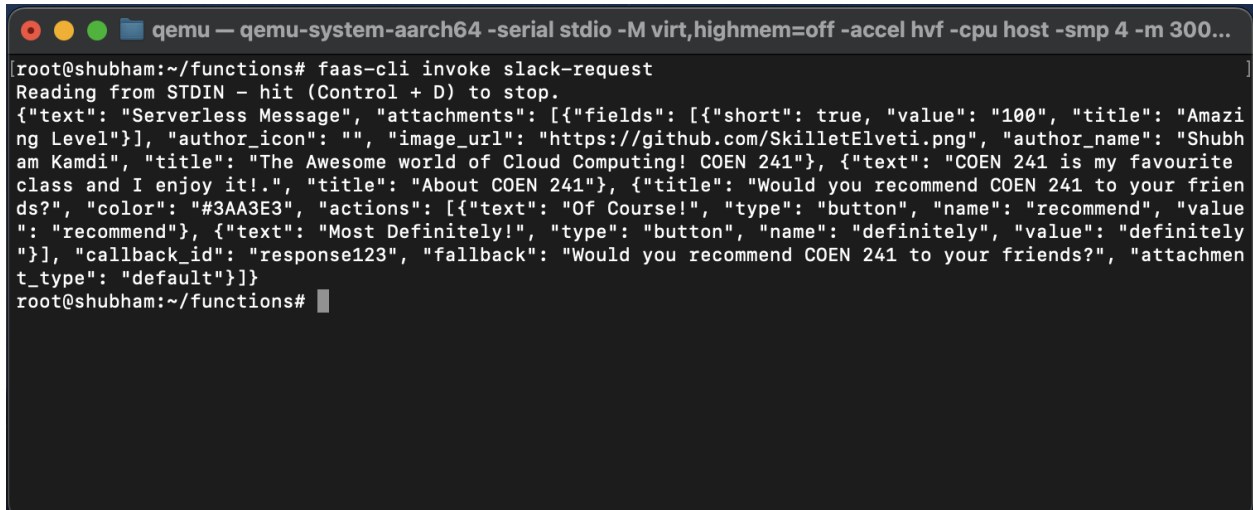
```
qemu — qemu-system-aarch64 -serial stdio -M virt,highmem=off -accel hvf -cpu host -smp 4 -m 300...
Deploying: slack-interactive.
Function slack-interactive already exists, attempting rolling-update.

Deployed. 200 OK.
URL: http://127.0.0.1:8080/function/slack-interactive

root@shubham:~/functions# faas-cli invoke slack-interactive
Reading from STDIN - hit (Control + D) to stop.
{"attachments": [{"footer": "Slack Apps built on OpenFaas", "author_link": "https://github.com/SkilletElveti/Coen-245", "color": "#36a64f", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "", "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-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": "Yes! That's an amazing choice, COEN 241 is amazing!", "fallback": "Required plain-text summary of the attachment.", "thumb_url": "https://www.scu.edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/", "author_icon": "https://github.com/SkilletElveti"}]}
root@shubham:~/functions#
```

Q4. What is the output seen after invoking slack-interactive function?

Ans. The following output is observed after invoking the function via both curl and faas cli.

A terminal window titled 'qemu — qemu-system-aarch64 -serial stdio -M virt,highmem=off -accel hvf -cpu host -smp 4 -m 300...' shows the command 'faas-cli invoke slack-request' being executed. The output is a JSON object representing a Slack message. The message has a text field with 'Serverless Message', an author icon, an image URL, and an author name 'Shubham Kamdi'. It also has a title 'The Awesome world of Cloud Computing! COEN 241' and a text field 'COEN 241 is my favourite class and I enjoy it!'. There are two buttons: 'Of Course!' and 'Most Definitely!'. The 'Of Course!' button has a 'recommend' action, and the 'Most Definitely!' button has a 'definitely' action. The 'definitely' action has a 'callback\_id' of 'response123' and a 'fallback' of 'Would you recommend COEN 241 to your friends?'. The 'attachmen' field is 't\_type': 'default'.

```
[root@shubham:~/functions# faas-cli invoke slack-request
Reading from STDIN - hit (Control + D) to stop.
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/SkilletElveti.png", "author_name": "Shubham Kamdi", "title": "The Awesome world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is my favourite class and I enjoy it!", "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?", "attachmen
t_type": "default"}]}
root@shubham:~/functions#
```

Q5. How would you pass different arguments to the functions?

Passing arguments to functions can be done in several ways. One way is demonstrated by the Slack interactive curl command, which sends specified data as a POST request to an HTTP server. Another way is by using the echo command, as shown in the example where the figlet function is invoked using the argument "Hello, FaaS World". Arguments can also be passed through the OpenFaaS UI.

Q6. How would you change the slack interactive function to read to different inputs?

The package urllib contains the function unquote, which can decode a string into a URL using the default encoding of UTF-8. In the Slack-interactive function, this function is defined in the handler.py file. Additionally, the json.load() method is used to convert a valid JSON string into a Python dictionary, which is then saved in the response variable. However, the response variable is not currently being used anywhere else in the program.

If we wanted to update the Slack-interactive function to respond to different inputs, we could use the information stored in the response variable. Specifically, we could incorporate the response variable into the data dictionary, which is also a Python dictionary. This would allow the function to react to various inputs when we return json.dumps(data).

