

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

- a. Via curl
- b. 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.

```
root@616A-STEVE:~/functions# faas-cli build -f ./slack-interactive.yml
[0] > Building slack-interactive.
Clearing temporary build folder: ./build/slack-interactive/
Preparing: ./slack-interactive/ build/slack-interactive/function
Building: steve2698/slack-interactive:latest with python template. Please wait...
#1 [internal] load build definition from Dockerfile
#1 sha256:189ee5bf45eb26bc36d658a5a631b8c8706d2747249c55c822997e47862f727c
#1 transferring dockerfile: 1.34kB done
#1 DONE 0.0s

#2 [internal] load .dockerignore
#2 sha256:ec3e4eb8248704f2523dd8f8ea363348f27b2a2c590ec37d8bf636038c175d730
#2 transferring context: 2B done
#2 DONE 0.0s

#4 [internal] load metadata for ghcr.io/openfaas/classic-watchdog:0.2.1
#4 sha256:a7f5cfe88af04ba9fd3a54558e9369a2c03c1aa45ca4fa09061d861ad90c4a07
#4 ...

#5 [auth] library/python:pull token for registry-1.docker.io
#5 sha256:d0c35968c32e731ca34dad369c4037a2209c31436ae9ffedc3b69e54aef2fd2
#5 DONE 0.0s

#3 [internal] load metadata for docker.io/library/python:2.7-alpine
#3 sha256:4a619c286ed7998e59d1bacede94643c47e78f8dd418309b3465f09e368bcc
#3 DONE 1.4s

#4 [internal] load metadata for ghcr.io/openfaas/classic-watchdog:0.2.1
#4 sha256:a7f5cfe88af04ba9fd3a54558e9369a2c03c1aa45ca4fa09061d861ad90c4a07
#4 DONE 1.7s

#13 [internal] load build context
#13 sha256:73d3542ec7f7ec134738c308e45f5e6f8c15030025d9d078ac0d192a7cdd945d
#13 transferring context: 2.20kB done
#13 DONE 0.0s

#6 [stage-1 1/18] FROM docker.io/library/python:2.7-alpine@sha256:724d0540eb56ffaa6dd770aa13c3bc7dfc829dec561d87cb36b2f5b9ff8a760a
#6 sha256:b8e5568735ea75c6ccfc221b670bcb770403fe53ada5358178cbd4005389e686
#6 resolve docker.io/library/python:2.7-alpine@sha256:724d0540eb56ffaa6dd770aa13c3bc7dfc829dec561d87cb36b2f5b9ff8a760a 0.0s done
```

```
Yash@yash:~/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/yash-bhargava18.png", "author_name": "Yash Bhargava", "title": "The Amazing world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is the most awesome class ever!", "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"}]}
Yash@yash:~/functions$ curl -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/yash-bhargava18.png", "author_name": "Yash Bhargava", "title": "The Amazing world of Cloud Computing! COEN 241"}, {"text": "COEN 241 is the most awesome class ever!", "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"}]}
```

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

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

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.

```
#25 [stage-1 18/18] RUN chown -R app:app ./ && chmod -R 777 /home/app/python
#25 sha256:abb5cd3798b13437fef20b074c7c52886e4b67d9424bc0416fec5532c3bd519d
#25 DONE 0.4s

#26 exporting to image
#26 sha256:e8c613e07b0b7ff33893b694f7759a10d42e180f2b4dc349fb57dc6b71dcab00
#26 exporting layers 0.0s done
#26 writing image sha256:e205d177b933febd418ffffba937cc932895940fe76900b057c9ef6f64fb436b2 done
#26 naming to docker.io/steve2698/slack-request:latest done
#26 DONE 0.0s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
Image: steve2698/slack-request:latest built.
[0] < Building slack-request done in 1.85s.
[0] Worker done.

Total build time: 1.85s
root@GIGA_STEVE:~/functions#
```

```
yash@yash:~/functions$ faas-cli invoke slack-interactive
Reading from STDIN - hit (Control + D) to stop.
'attachments': [{"footer": "Slack Apps built on OpenFaas", "author_link": "http
://github.com/yash-bhargava18/COEN241.git", "color": "#36a64f", "text": "Head o
er to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "", "titl
link": "https://www.scu.edu/engineering/academic-programs/department-of-comput
-engineering/graduate/course-descriptions/", "image_url": "https://www.scu.edu
media/offices/umc/scu-brand-guidelines/visual-identity-and-photography/visual-i
entity-toolkit/logos-and-seals/Mission-Dont3.png", "response_type": "ephemeral"
"replace_original": true, "footer_icon": "https://a.slack-edge.com/45901/marke
ing/img/_rebrand/meta/slack_hash_256.png", "pretext": "Ahh yeah! Great choice,
COEN 241 is absolutely amazing!", "fallback": "Required plain-text summary of th
attachment.", "thumb_url": "https://www.scu.edu/engineering/academic-programs/
department-of-computer-engineering/graduate/course-descriptions/", "author_icon"
"https://github.com/yash-bhargava18.png"}]]}
yash@yash:~/functions$ curl -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/fun
tion/slack-interactive
'attachments': [{"footer": "Slack Apps built on OpenFaas", "author_link": "http
://github.com/yash-bhargava18/COEN241.git", "color": "#36a64f", "text": "Head o
er to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "", "titl
link": "https://www.scu.edu/engineering/academic-programs/department-of-comput
-engineering/graduate/course-descriptions/", "image_url": "https://www.scu.edu
media/offices/umc/scu-brand-guidelines/visual-identity-and-photography/visual-i
entity-toolkit/logos-and-seals/Mission-Dont3.png", "response_type": "ephemeral"
"replace_original": true, "footer_icon": "https://a.slack-edge.com/45901/marke
ing/img/_rebrand/meta/slack_hash_256.png", "pretext": "Ahh yeah! Great choice,
COEN 241 is absolutely amazing!", "fallback": "Required plain-text summary of th
attachment.", "thumb_url": "https://www.scu.edu/engineering/academic-programs/
department-of-computer-engineering/graduate/course-descriptions/", "author_icon"
"https://github.com/yash-bhargava18.png"}]]}
yash@yash:~/functions$
```

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

Ans. There are many ways of passing arguments to functions. For example, in the slack- interactive curl command which is as shown below :

```
curl -d '{"Hello": "COEN 241"}' https://127.1.0.1:8080/function/slack-interactive
```

The above command sends the specified data in a POST request to

HTTP server. Another way is to use echo, whose example is shown

below:

```
echo "Hello, FaaS World" | faas-cli invoke figlet
```

Here, we invoke the figlet function using faas-cli and the argument given to the function is

"Hello,FaaS World".

We can also pass arguments via the openfaas UI.

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

Ans. We can see that urllib is a package in which the unquote function is defined in handler.py (slack-interactive function). It can be used to decode any string into a URL. The default encoding is UTF-8. After that, we utilize the json.load() method to transform a valid JSON string, such as urlstring, into a Python dictionary. This information is saved in the response. We can see that we are not using it anywhere after storing it in response. Using the answer in our program, we

can update the slack-interactive function to react to different inputs. Response can be utilized inside the data because it is also a Python dictionary. As a result, when we return `json.dumps(data)`, the function will begin to react to various inputs.