

Cloud Computing

Assignment 2 Answers:

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

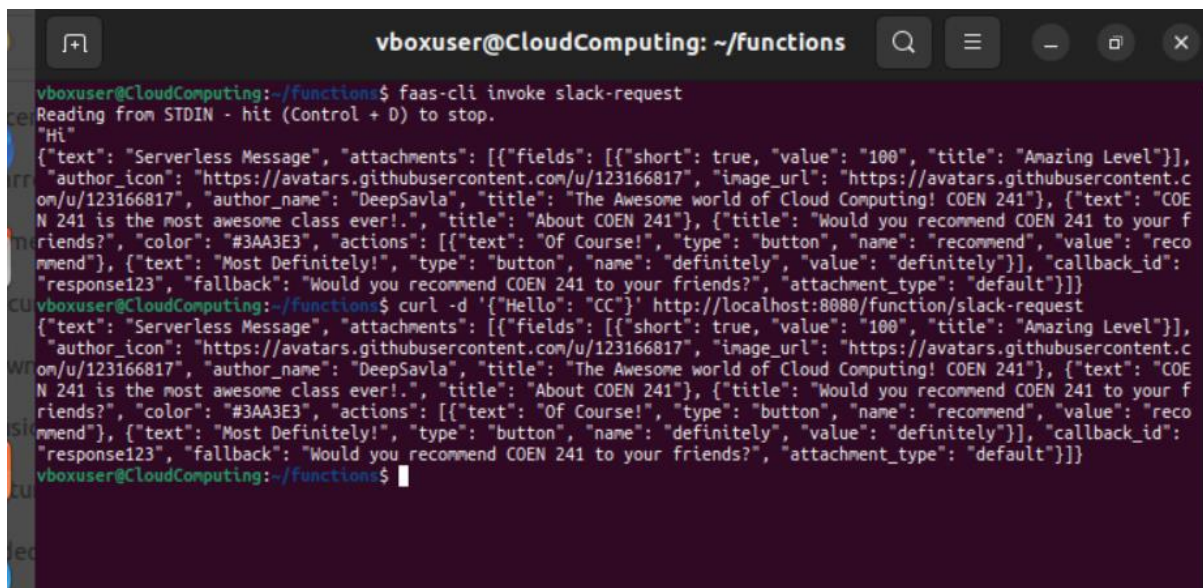
- a. Via Curl
- b. Via faas-cli

Ans.

- a. Via curl – curl -d '{ "Hello": "CC" }' http://127.1.0.1:8080/function/slack-request
- b. Via faas-cli – faas-cli invoke slack-request

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

Ans.

A terminal window titled 'vboxuser@CloudComputing: ~/functions' shows the execution of 'faas-cli invoke slack-request'. The output is a JSON object representing a Slack message. It includes fields for 'text', 'author_icon', 'image_url', 'author_name', 'title', 'color', 'actions', and 'callback_id'. The message content is about 'COEN 241' and includes a 'recommend' button.

```
vboxuser@CloudComputing:~/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": "https://avatars.githubusercontent.com/u/123166817", "image_url": "https://avatars.githubusercontent.com/u/123166817", "author_name": "DeepSavla", "title": "The Awesome world of Cloud Computing! COEN 241", {"text": "COE
N 241 is the most awesome class ever!.", "title": "About COEN 241"}, {"title": "Would you recommend COEN 241 to your f
riends?", "color": "#3AA3E3", "actions": [{"text": "Of Course!", "type": "button", "name": "recommend", "value": "reco
mmend"}, {"text": "Most Definitely!", "type": "button", "name": "definitely", "value": "definitely"}], "callback_id":
"response123", "fallback": "Would you recommend COEN 241 to your friends?", "attachment_type": "default"}]}
vboxuser@CloudComputing:~/functions$ curl -d '{"Hello": "CC"}' http://localhost:8080/function/slack-request
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}],
"author_icon": "https://avatars.githubusercontent.com/u/123166817", "image_url": "https://avatars.githubusercontent.com/u/123166817", "author_name": "DeepSavla", "title": "The Awesome world of Cloud Computing! COEN 241", {"text": "COE
N 241 is the most awesome class ever!.", "title": "About COEN 241"}, {"title": "Would you recommend COEN 241 to your f
riends?", "color": "#3AA3E3", "actions": [{"text": "Of Course!", "type": "button", "name": "recommend", "value": "reco
mmend"}, {"text": "Most Definitely!", "type": "button", "name": "definitely", "value": "definitely"}], "callback_id":
"response123", "fallback": "Would you recommend COEN 241 to your friends?", "attachment_type": "default"}]}
vboxuser@CloudComputing:~/functions$
```

Q3. What is the command to invoke the slack-interactive function?

- a. Via Curl
- b. Via faas-cli

Ans.

- a. Via Curl - curl -d '{"Hello": "CC"}' http://127.1.0.1:8080/function/slack-interactive
- b. Via faas-cli - faas-cli invoke slack-interactive

Q4. What is the output you see when you invoke the slack-interactive function?

Ans.

```
vboxuser@CloudComputing: ~/functions
vboxuser@CloudComputing:~/functions$ faas-cli invoke slack-interactive
Reading from STDIN - hit (Control + D) to stop.
"Hi"
{"attachments": [{"footer": "Slack Apps built on OpenFaas", "author_link": "https://github.com/DeepSavla/Cloud-Computing.git", "color": "#36a64f", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "DeepSavla", "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-and-photography/visual-identity-toolkit/logos-and-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/department-of-computer-engineering/graduate/course-descriptions/", "author_icon": "https://avatars.githubusercontent.com/u/123166817"}]}
vboxuser@CloudComputing:~/functions$ curl -d '{"Hello": "CC"}' http://localhost:8080/function/slack-interactive
{"attachments": [{"footer": "Slack Apps built on OpenFaas", "author_link": "https://github.com/DeepSavla/Cloud-Computing.git", "color": "#36a64f", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "DeepSavla", "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-and-photography/visual-identity-toolkit/logos-and-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/department-of-computer-engineering/graduate/course-descriptions/", "author_icon": "https://avatars.githubusercontent.com/u/123166817"}]}
vboxuser@CloudComputing:~/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": "CC"}' http://localhost: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 react 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). Any string can be converted into a URL using this method. The UTF-8 encoding is the standard. The next step is to convert a valid JSON string, like urlstring, into a Python dictionary using the json.load() method. The answer contains a record of this data. After storing it, we can see that we are not using it anywhere. The slack-interactive function can be updated in our application using the solution to respond to various inputs. Response is likewise a Python dictionary, thus it may be used inside the data. As a result, the function will start responding to different inputs when we return json.dumps(data).