COEN 241: Cloud Computing
 Shivani Gopal Deosatwar
W1621005

Homework 2

Answers:

1. What is the command to invoke the slack-request function (4 pts)?
a. Via Curl
Via curl – curl -d '{"Hello":" COEN 241"}' http://127.1.0.1:8080/function/slack-request

b. Via faas-cli
Via faas-cli – faas-cli invoke slack-request

2. What is the output you see when you invoke the slack-request function? (2 pts)
1)$faas-cli invoke slack-request

Reading from STDIN - hit (Control + D) to stop.
hi
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/SDeosatwar.png", "author_name": "Shivani Deosatwar", "title": "The Awesome 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"}]}

2)$curl -d '{"Hello":"COEN 241"}' http://127.1.0.1:8080/function/slack-request

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{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author_icon": "", "image_url": "https://github.com/SDeosatwar.png", "author_name": "Shivani Deosatwar", "title": "The Awesome 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"}]}

3. What is the command to invoke the slack-interactive function? (4 pts)
a. Via curl
curl - curl -d '{"Hello": "COEN 241"}' http://127.1.0.1:8080/function/slack-interactive

b. Via faas-cli
faas-cli – faas-cli invoke slack-interactive

4. What is the output you see when you invoke the slack-interactive function? (2 pts)
1)$faas-cli invoke slack-interactive

```
Reading from STDIN - hit (Control + D) to stop.
{"attachments": [{"footer": "Slack Apps built on OpenFaas", "author_link": "http
s://github.com/SDeosatwar/COEN241", "color": "#36a64f", "text": "Head over to CO
EN 241", "title": "COEN 241", "ts": 123456789, "author_name": "", "title_link":
"https://www.scu.edu/engineering/academic-programs/department-of-computer-engine
ering/graduate/course-descriptions/", "image_url": "https://www.scu.edu/media/of
fices/umc/scu-brand-guidelines/visual-identity-amp-photography/visual-identity-t
oolkit/logos-amp-seals/Mission-Dont3.png", "response_type": "ephemeral", "replac
e_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 attachm
ent.", "thumb_url": "https://www.scu.edu/engineering/academic-programs/departmen
t-of-computer-engineering/graduate/course-descriptions/", "author_icon": "https:
//github.com/SDeosatwar.png"}]}
```

2)$curl -d '{"Hello":"COEN 241"}' http://127.1.0.1:8080/function/slack-interactive

```
//127.1.0.1:8080/function/slack-interactive
{"attachments": [{"footer": "Slack Apps built on OpenFaas", "author_link": "http
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"https://www.scu.edu/engineering/academic-programs/department-of-computer-engine
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t-of-computer-engineering/graduate/course-descriptions/", "author_icon": "https:
//github.com/SDeosatwar.png"}]}
```

5. How would you pass different arguments to the functions? (4 pts)
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.

6. How would you change the slack-interactive function to react to different inputs? (4 pts)
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.