

HW 2

1. What is the command to invoke the slack-request function (4 pts)
 - a. Via Curl
curl 127.0.0.1:8080/function/slack-request
 - b. Via faas-cli
echo "" | faas-cli invoke slack-request
2. What is the output you see when you invoke the slack-request function? (2 pts)
{ "text": "Serverless Message", "attachments": [{ "fields": [{ "short": true, "value": "100", "title": "Amazing Level" }], "author_icon": "", "image_url": "https://avatars.githubusercontent.com/u/58917968?v=4", "author_name": "Praveen Vandeyar", "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 127.0.0.1:8080/function/slack-interactive -H 'Content-Type: application/json' -d '{"json": "object"}'
 - b. Via faas-cli
echo '{"json": "object"}' | faas-cli invoke slack-interactive
4. What is the output you see when you invoke the slack-interactive function? (2 pts)
{ "attachments": [{ "footer": "Slack Apps built on OpenFaas", "author_link": "https://github.com/pv-gitjob", "color": "#36a64f", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "Praveen Vandeyar", "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-en
gineering/graduate/course-descriptions/", "author_icon":
"https://avatars.githubusercontent.com/u/58917968?v=4"]}]}**

5. How would you pass different arguments to the functions? (4 pts)
**For “curl”, change the string data that follows “-d”, and the input format
“content-type” after “-H” if needed. For “faas-cli”, change the echo that is being
piped. The slack-request does not do anything with the arguments so it does not
matter, but for slack-interactive, different JSON payloads is how you pass different
arguments. This can be done with different button presses from the buttons
obtained from the slack-request function. For figlet, it just reads everything as
plain text so whatever text that is passed into it will be read. Inputs can also be
passed through files by altering the “content-type”.**

6. How would you change the slack-interactive function to react to different inputs? (4 pts)
**Edit “handler.py” for the slack-interactive function. The handle function extracts
the input from the HTTP POST request that is sent as the JSON payload, which is
received by “urlstring = urllib.unquote(req).decode('utf8').strip('payload=')”. It is
then converted into a Python Dictionary by “response = json.loads(urlstring)”. For
this function, the input payload is provided by the button from the slack-request
function. Pressing a button would send the slack-interactive function a JSON
payload, specifically one of the following:**

```
{"attachment_id": "3", "trigger_id": "2712273276403.2714076275793.a10d4bf6065c79f51bfe54c357bb255e",  
"response_url": "https://hooks.slack.com/actions/T02M02883PB/2712255102946/nOkrZQ2d5W19xu0jeyQV37IU",  
"action_ts": "1636596189.849151", "enterprise": null, "actions": [{"type": "button", "name": "recommend",  
"value": "recommend"}], "is_enterprise_install": false, "callback_id": "response123", "token":  
"NK3YRXOXcxEVvPyGPjRAYGSt", "is_app_unfurl": false, "user": {"id": "U02L6PGKPHD", "name": "pvandeyar"},  
"team": {"domain": "cloud-hw2", "id": "T02M02883PB"}, "type": "interactive_message", "message_ts":  
"1636596187.000100", "channel": {"id": "C02M02AGHCH", "name": "extra-credit"}}
```

```
{"attachment_id": "3", "trigger_id": "2709285605525.2714076275793.7206fa195bad4819c5490fb7bdc96a2",  
"response_url": "https://hooks.slack.com/actions/T02M02883PB/2697595265239/eFgT1BETZt7noWeAdyxpesqJ",  
"action_ts": "1636596209.665075", "enterprise": null, "actions": [{"type": "button", "name": "definitely", "value":  
"definitely"}], "is_enterprise_install": false, "callback_id": "response123", "token":  
"NK3YRXOXcxEVvPyGPjRAYGSt", "is_app_unfurl": false, "user": {"id": "U02L6PGKPHD", "name": "pvandeyar"},  
"team": {"domain": "cloud-hw2", "id": "T02M02883PB"}, "type": "interactive_message", "message_ts":  
"1636596207.000200", "channel": {"id": "C02M02AGHCH", "name": "extra-credit"}}
```

**Using the values from the dictionary keys “callback_id” for requesting function,
“user” for requesting user information, and “value” from “actions” for the pressed
button value, data can be returning for the different input by placing “if”
statements in slack-interactive function’s “handler.py”. After the edit, rebuild,
push, and redeploy the function.**

7. Extra Credit (30 pts)
[https://join.slack.com/t/cloud-hw2/shared_invite/zt-yh18x9oy-PwvUZnK0qJALSKJ
KFilsoq](https://join.slack.com/t/cloud-hw2/shared_invite/zt-yh18x9oy-PwvUZnK0qJALSKJKFilsoq)
• Head over to <https://api.slack.com/apps> and create a new app

hw2-extra-credit

- **Create a incoming webhook**

Created

- **Head over to slash commands and create a new command, e.g., /coen241, set the**

request url to the public endpoint of your function:

**http://http://ec2-54-215-117-138.us-west-1.compute.amazonaws.com/:8080/function
/slack-request
/coen241**

- **Head over to interactive components, set the request url for the interactivity:**

**http://http://ec2-54-215-117-138.us-west-1.compute.amazonaws.com/:8080/function
/slack-interactive**