COEN 241: Cloud Computing Serverless Infrastructure

Xiao He (W1649820)

# Screenshots

1. Screenshot of invoking figlet using faas-cli and UI

Text

Description automatically generatedGraphical user interface, text, application, email

Description automatically generated

1. Slack request handler.py

Text

Description automatically generated

1. Slack interactive handler.py

Graphical user interface, text, application, Teams

Description automatically generated

1. Screenshot of running sudo journalctl -u faasd --lines 40

Text

Description automatically generated

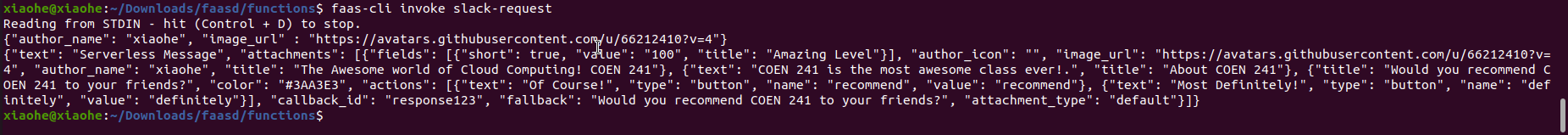
1. Screenshot of OpenFaas gateway UI

Graphical user interface, application, Teams

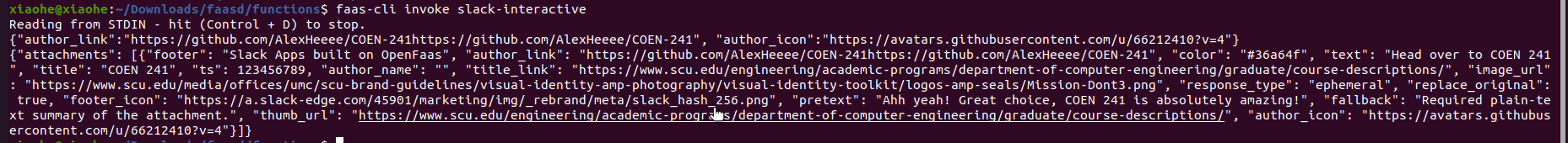
Description automatically generated

1. Screenshot of invoking slack-request and slack-interactive

Invoking slack request from faas-cli:



Invoking slack interactive from faas-cli:



Invoking slack request from OpenFaas UI:

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Invoking slack interactive from OpenFaas UI:

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

# Answers

## a) Curl for slack-request

curl http://localhost:8080/function/slack-request -d '{"author\_name": "xiaohe", "image\_url"

: "https://avatars.githubusercontent.com/u/66212410?v=4"}'

## b) faas-cli for slack-request

faas-cli invoke slack-request

## Response from slack-request

**Request:** '{"author\_name": "xiaohe", "image\_url":"https://avatars.githubusercontent.com/u/66212410?v=4"}'

**Response:** {"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Amazing Level"}], "author\_icon": "", "image\_url": "https://avatars.githubusercontent.com/u/66212410?v=4", "author\_name": "xiaohe", "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"}]}

## a) Curl for slack-interactive

curl http://localhost:8080/function/slack-interactive -d '{"author\_link": "https://github.com/AlexHeeee/COEN-241https://github.com/AlexHeeee/COEN-241", "author\_icon" : "https://avatars.githubusercontent.com/u/11367713?v=4"}'

## b) faas-cli for slack-interactive

faas-cli invoke slack-interactive

## Response from slack-interactive

**Request:** '{"author\_link": "https://github.com/AlexHeeee/COEN-241https://github.com/AlexHeeee/COEN-241", "author\_icon" : "https://avatars.githubusercontent.com/u/11367713?v=4"}'

**Response:** {"attachments": [{"footer": "Slack Apps built on OpenFaas", "author\_link": "https://github.com/AlexHeeee/COEN-241https://github.com/AlexHeeee/COEN-241", "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": "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/66212410?v=4"}]}

## How to pass arguments to the function

We can pass different arguments to the function in the following ways:

* 1. Curl - We can pass arguments to the function by invoking it using the curl command and passing the arguments using the -d option.
  2. OpenFaas UI - Using the OpenFaas UI, we can pass arguments to the functions while invoking them by selecting the type of requests like text or JSON and providing the request body.
  3. YML files - We can add the content type in the yml file of the function to reflect the type as plain text or JSON.

## Slack interactive to read inputs

We can modify the function to react to different inputs by parsing through the Action URL invocation payload which includes a “actions” key containing the “selected options”. In these selected options we can find the “value” of the field we require. We can identify the correct action we are looking for using the “name” and “callback\_id” when this action is invoked.