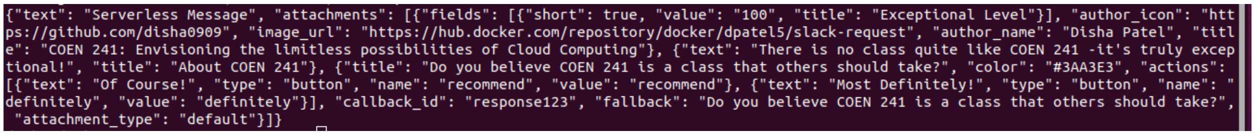
1. What is the command to invoke the slack-request function (4 pts)?
    a. Via Curl:

        curl -d {} http://127.0.0.1:8080/function/slack-request

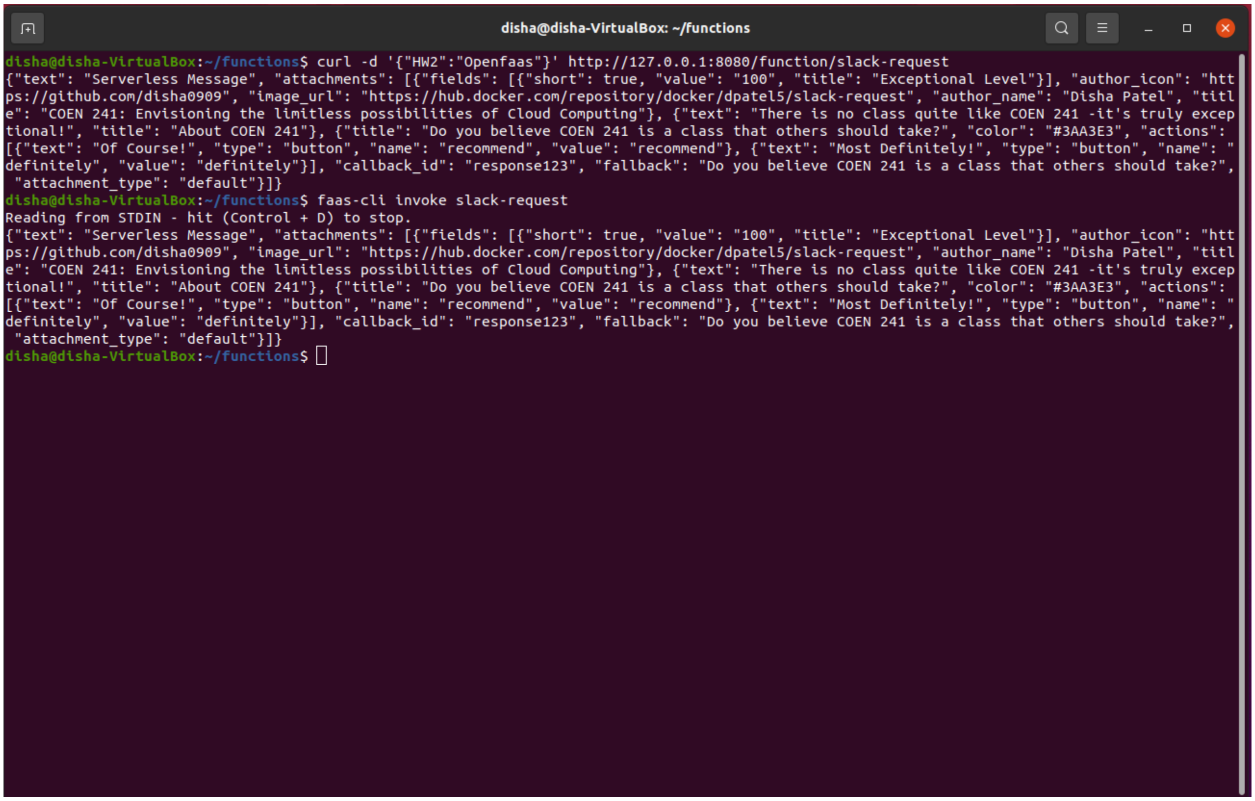
    b. Via faas-cli:

        faas-cli invoke slack-request

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



```
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Exceptional Level"}], "author_icon": "htt
ps://github.com/disha0909", "image_url": "https://hub.docker.com/repository/docker/dpatel5/slack-request", "author_name": "Disha Patel", "titl
e": "COEN 241: Envisioning the limitless possibilities of Cloud Computing"}, {"text": "There is no class quite like COEN 241 -it's truly excep
tional!", "title": "About COEN 241"}, {"title": "Do you believe COEN 241 is a class that others should take?", "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": "Do you believe COEN 241 is a class that others should take?",
 "attachment_type": "default"}]}
```



```
disha@disha-VirtualBox:~/functions$ curl -d '{"HW2":"Openfaas"}' http://127.0.0.1:8080/function/slack-request
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Exceptional Level"}], "author_icon": "htt
ps://github.com/disha0909", "image_url": "https://hub.docker.com/repository/docker/dpatel5/slack-request", "author_name": "Disha Patel", "titl
e": "COEN 241: Envisioning the limitless possibilities of Cloud Computing"}, {"text": "There is no class quite like COEN 241 -it's truly excep
tional!", "title": "About COEN 241"}, {"title": "Do you believe COEN 241 is a class that others should take?", "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": "Do you believe COEN 241 is a class that others should take?",
 "attachment_type": "default"}]}
disha@disha-VirtualBox:~/functions$ faas-cli invoke slack-request
Reading from STDIN - hit (Control + D) to stop.
{"text": "Serverless Message", "attachments": [{"fields": [{"short": true, "value": "100", "title": "Exceptional Level"}], "author_icon": "htt
ps://github.com/disha0909", "image_url": "https://hub.docker.com/repository/docker/dpatel5/slack-request", "author_name": "Disha Patel", "titl
e": "COEN 241: Envisioning the limitless possibilities of Cloud Computing"}, {"text": "There is no class quite like COEN 241 -it's truly excep
tional!", "title": "About COEN 241"}, {"title": "Do you believe COEN 241 is a class that others should take?", "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": "Do you believe COEN 241 is a class that others should take?",
 "attachment_type": "default"}]}
disha@disha-VirtualBox:~/functions$
```

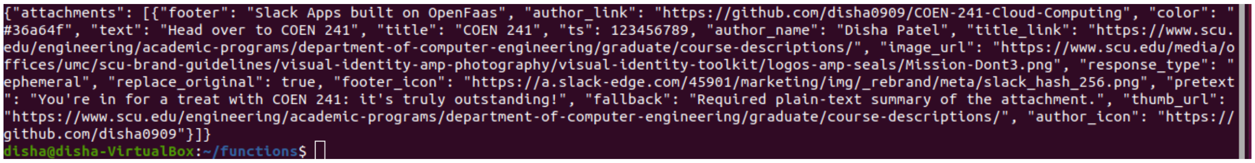
3. What is the command to invoke the slack-interactive function? (4 pts)
    a. Via curl:

        curl -d {} http://127.0.0.1:8080/function/slack-interactive

    b. Via faas-cli

        faas-cli invoke slack-interactive

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



```
{"attachments": [{"footer": "Slack Apps built on OpenFaas", "author_link": "https://github.com/disha0909/COEN-241-Cloud-Computing", "color": "
#36a64f", "text": "Head over to COEN 241", "title": "COEN 241", "ts": 123456789, "author_name": "Disha Patel", "title_link": "https://www.scu.
edu/engineering/academic-programs/department-of-computer-engineering/graduate/course-descriptions/", "image_url": "https://www.scu.edu/media/o
ffices/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
": "You're in for a treat with COEN 241: it's truly outstanding!", "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://
github.com/disha0909"}]}
disha@disha-VirtualBox:~/functions$ 
```

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

   The functions can accept either text or JSON as arguments. It is also possible to modify the JSON payload passed to the function. By making changes to the JSON file, we can adjust the request to the function. Based on the request type, we can modify the handler function to process the text or JSON request. Additionally, we can modify the content-type specified in the YAML file to send arguments in plain text to the handler files, instead of using JSON.

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

   The slack-interactive function is capable of accepting requests in either text or JSON format, by utilizing the code in the handler.py file. This file includes an unquote function from the urllib package, which can decode any string into a URL with the default encoding of UTF-8. In addition, the json.load() method is used to transform a valid JSON string into a Python dictionary, with the resulting information saved in the response. While the response is not used anywhere in the code as it stands, we can modify the slack-interactive function to react to different inputs by utilizing the response dictionary. By incorporating the response data into the data object, which is also a Python dictionary, we can create different interactive options in the slack bot responses using various Slack objects like buttons, checkboxes, and links in the form of JSON code. This allows the slack-interactive function to react to a wide range of inputs and create more dynamic and interactive Slack bot responses.