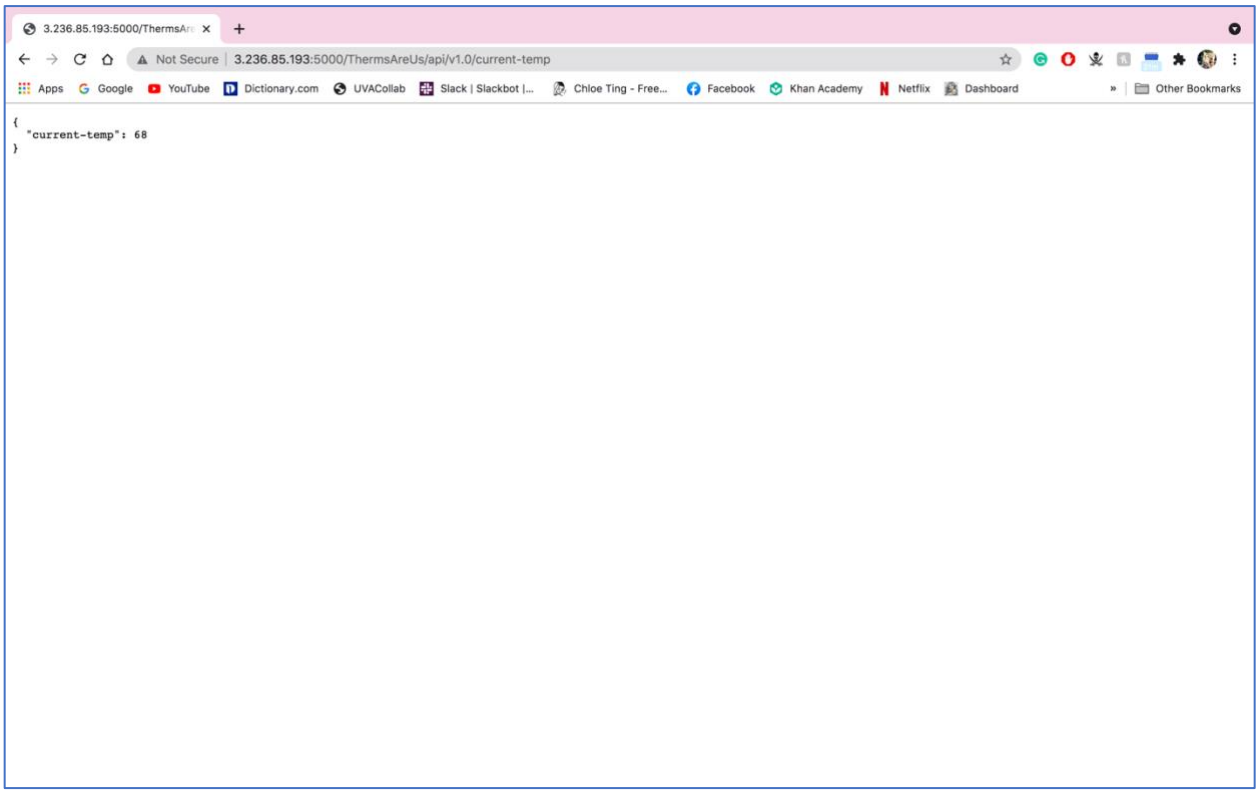
CS4740 Spring 2021 Cloud Computing PA#3

Name: Victoria Wang

UVa User ID: vxw6ta

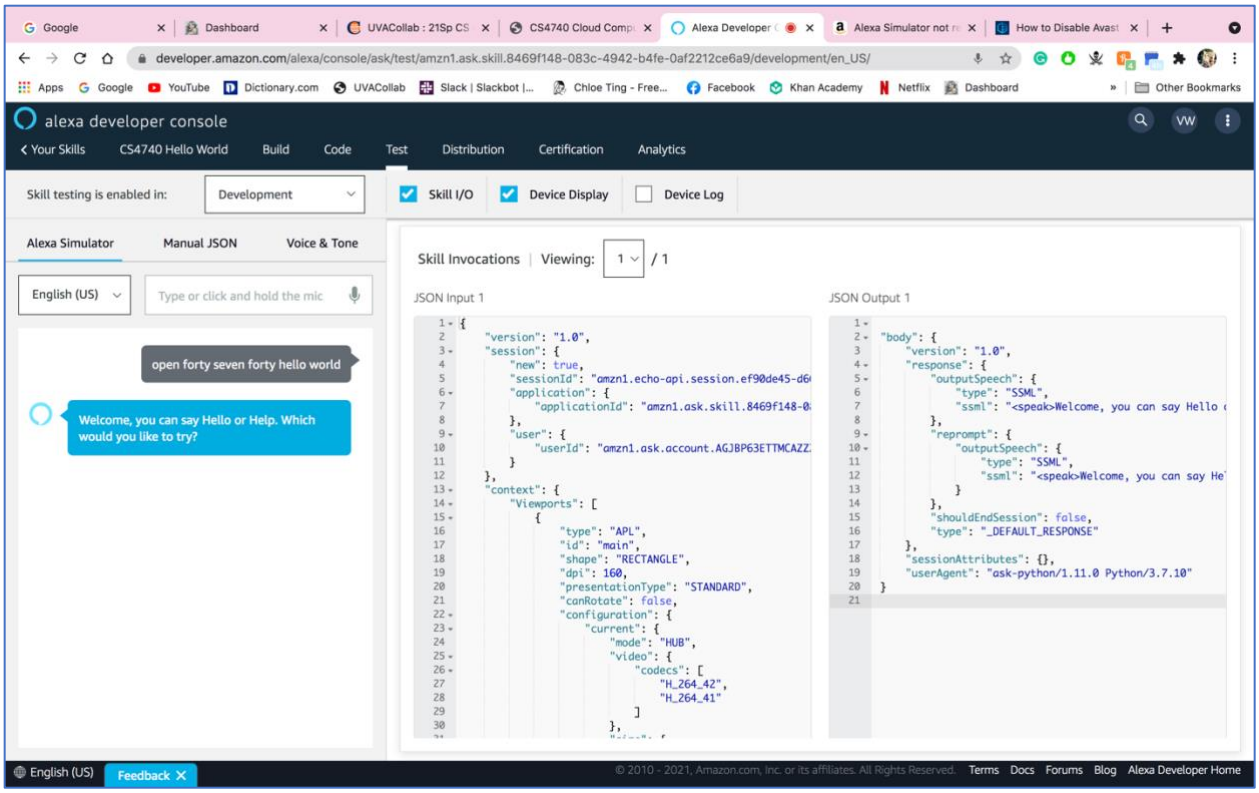
Instructions: Fill in your answers to the 5 questions and SUBMIT A PDF to collab (along with the source code requested in Question 1 and your source code requested in Question 5)

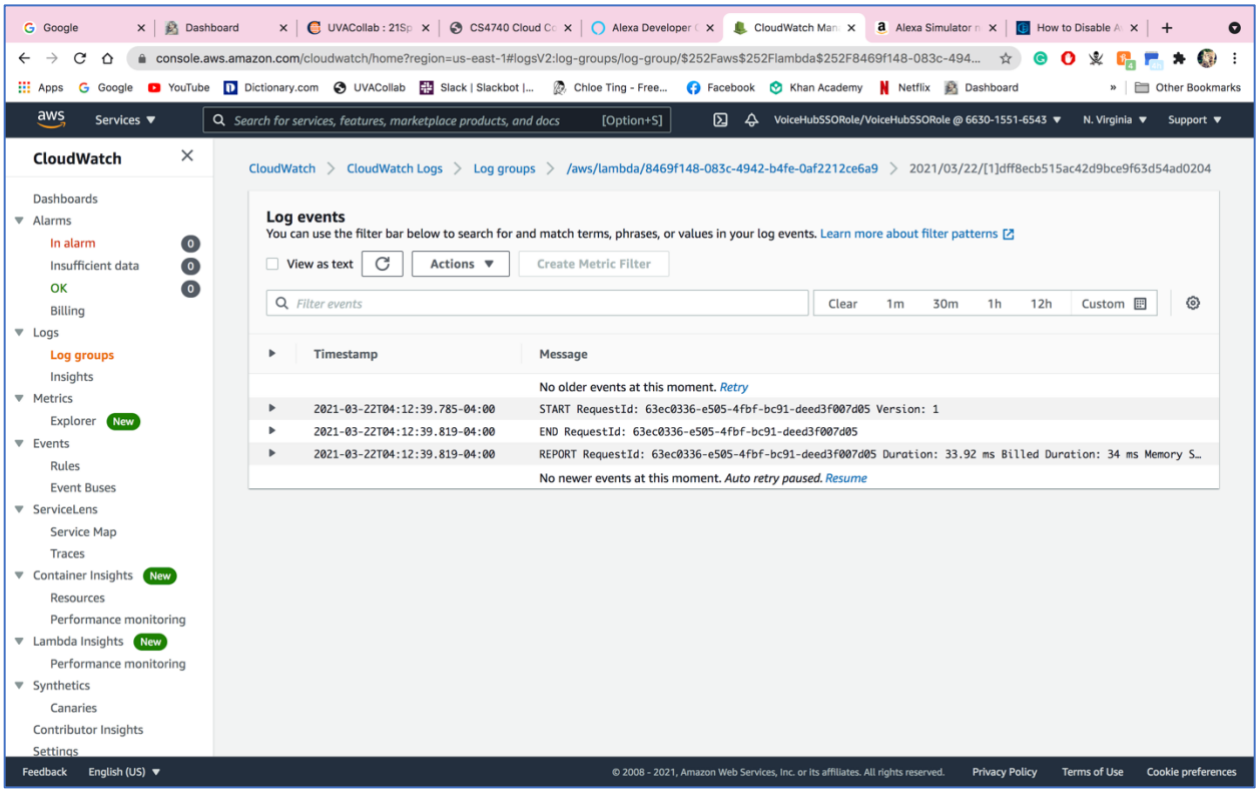
1. [20 points] After completing Part 1 ("Simulating the thermostat"), cut-and-paste a screenshot of a browser screen (full width of page) to http://[hostname]/ThermsAreUs/api/v1.0/current-temp To receive full credit, the URL must be legible in the screenshot. If you were unable to complete this part, explain how far you were able to get and describe the problem (you were unable to debug). ALSO attach the source code for your thermostat simulator to your collab submission (if multiple files, then ZIP format).



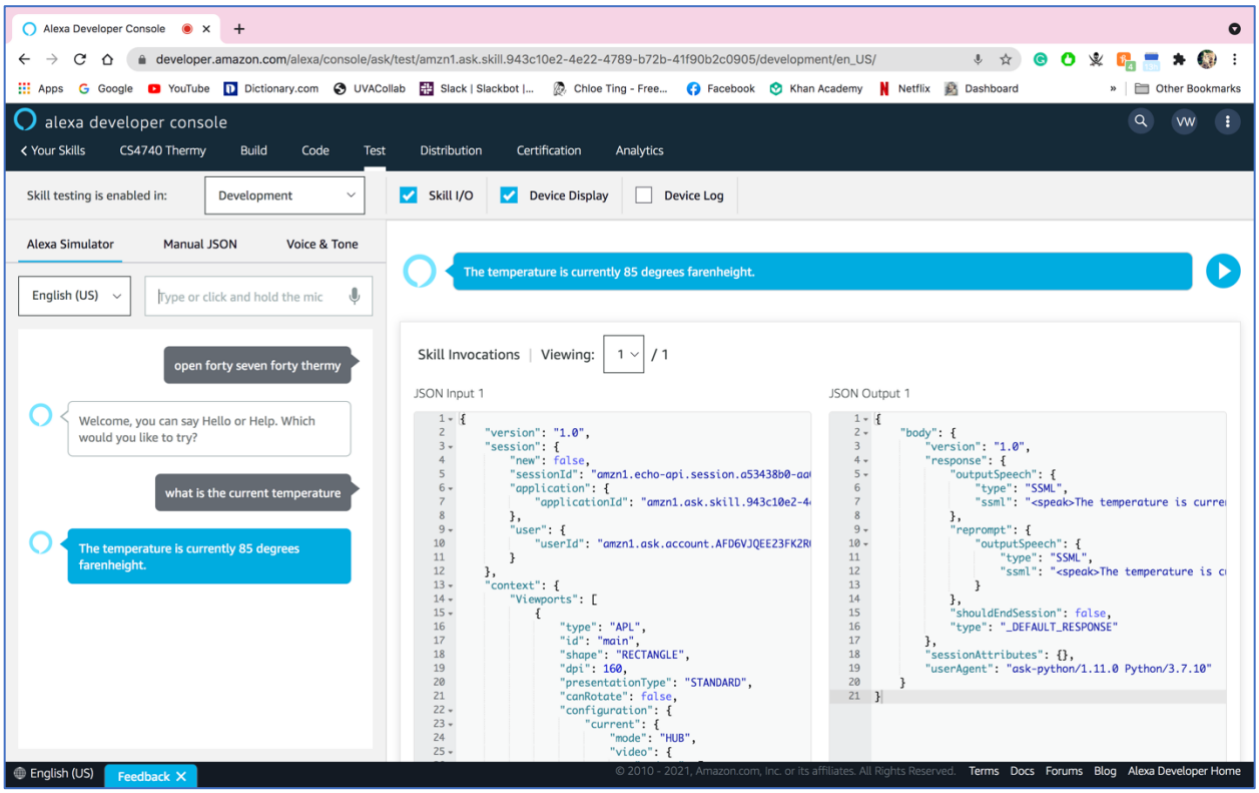
2. [20 points] After completing Part 2 ("Getting familiar with Alexa"), cut-and-paste two browser screens: [1] (full width of page) when you go to the "Test" tab and engage your service. To receive full credit, both the "JSON Input" and "JSON Output" must be shown, and your name (initials) must be shown in the upper right of the image (as displayed in the Alexa Developer Console). [2] The CloudWatch logs when you go to the "Code" tab, click on the CloudWatch link (under "Code"), *and then click on the most recent log* (thereby showing events such as "START", "END", and "REPORT").

If you were unable to complete this part, explain how far you were able to get and describe the problem (you were unable to debug).

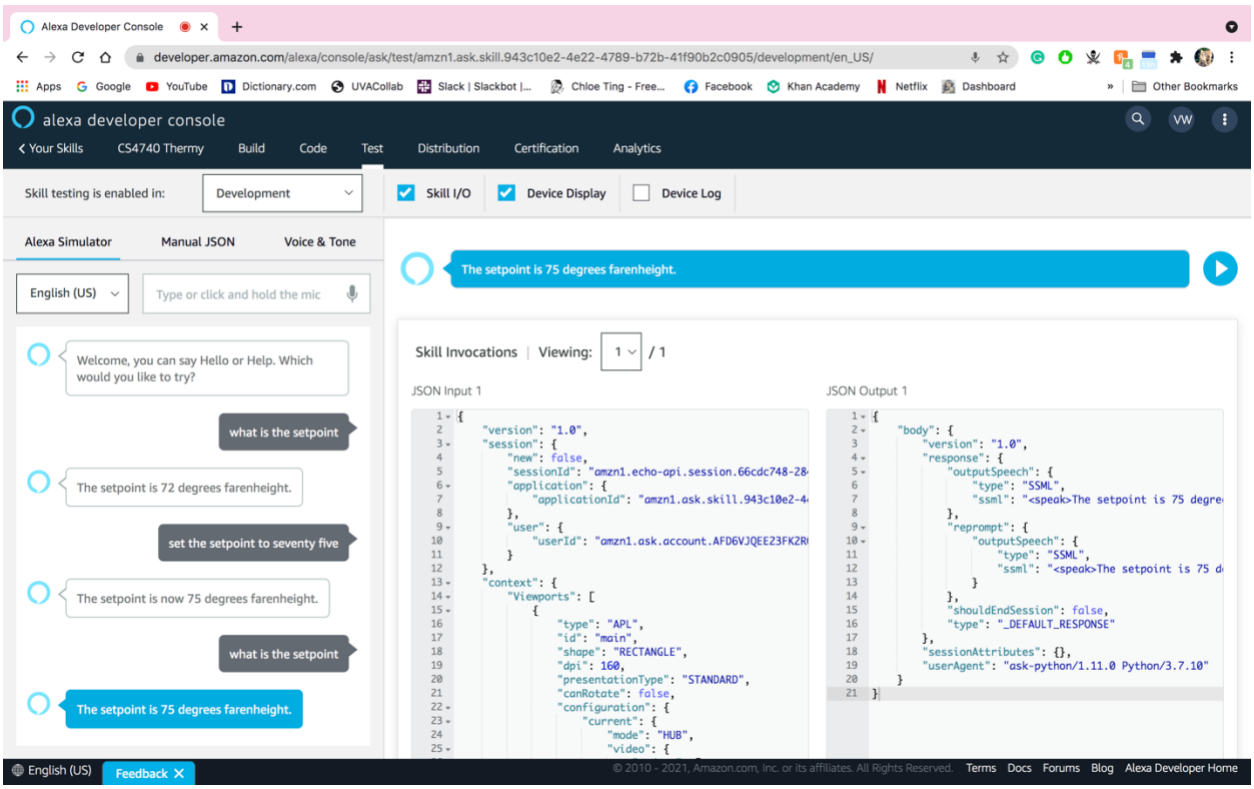




3. [20 points] After completing Part 3 (“Using voice to control your thermostat”) cut-and-paste your alexa developer console browser screen (full width of page) when you go to the “TEST” page, open our service, and ask for the current room temperature To get full credit, both the “JSON Input” and “JSON Output” must be shown (for our service, of course). If you were unable to complete this part, explain how far you were able to get and describe the problem (you were unable to debug).



4. [20 points] Repeat Question 3, except [1] ask what the current setpoint is, [2] ask to set the thermostat to a value that is 3 more than the value returned, and then [3] ask what the current setpoint is. You MUST have one screenshot that shows all three questions (and answers) on the left.



5. [20 points] Cut-and-paste the routine that handles the command to set the thermostat temperature (e.g., SetCurrentSetpointIntentHandler) . To receive full credit, this code must interact with your REST service. **ALSO attach all source code for your Alexa routine to your collab submission (e.g., lambda_function.py).**

***Routine that handles the command to set the thermostat temperature is boxed in yellow

```
class ChangeSetPointIntentHandler(AbstractRequestHandler):
    def can_handle(self, handler_input):
        return ask_utils.is_intent_name("ChangeSetPointIntent")(handler_input)

    def handle(self, handler_input):
        setpoint = handler_input.request_envelope.request.intent.slots["numberAnswer"].value
        update_task(setpoint)
        speak_output = "The setpoint is now " + str(setpoint) + " degrees farenheight."
        return (
            handler_input.response_builder
                .speak(speak_output)
                .ask(speak_output)
                .response
        )

def getCurrentTempFromAPI():
    url = 'http://3.236.85.193:5000/ThermsAreUs/api/v1.0/current-temp'
    response = requests.get(url)
    print(response.status_code)

    json_data = response.json()
    temp = json_data['current-temp']
    return temp
def getSetPointFromAPI():
    url = 'http://3.236.85.193:5000/ThermsAreUs/api/v1.0/current-setpoint'
    response = requests.get(url)
    print(response.status_code)

    json_data = response.json()
    temp = json_data['current-setpoint']
    return temp
def update_task(setpoint):
    url = 'http://3.236.85.193:5000/ThermsAreUs/api/v1.0/current-setpoint'
    return requests.put(url, json={
        'set-temp': setpoint
        })
```