Final Project CSE 451/551 Spring 2020

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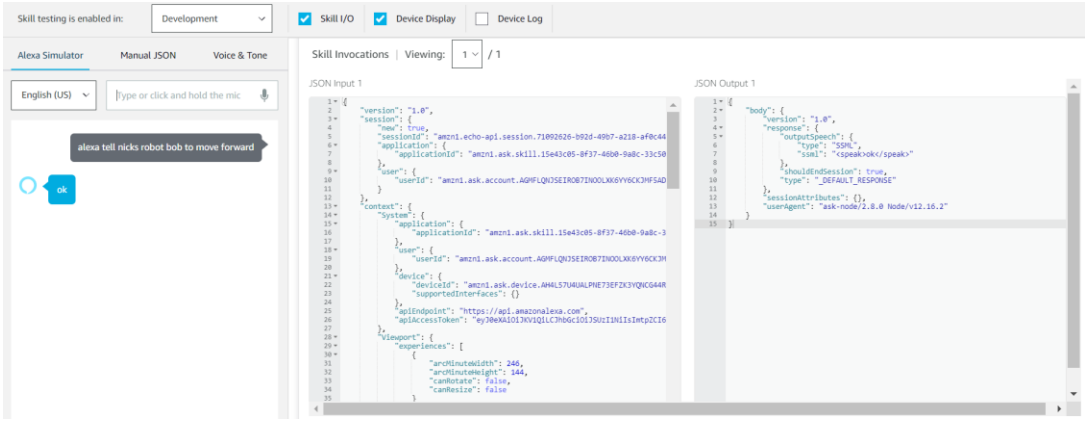
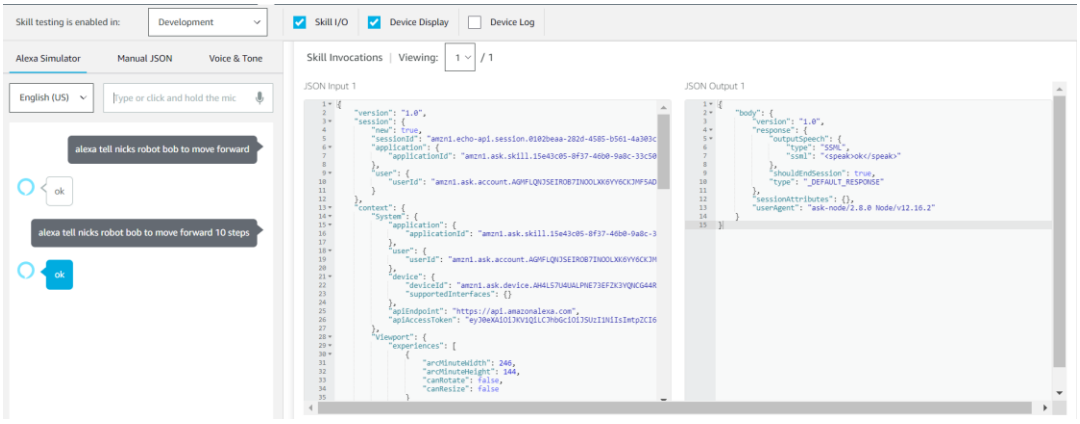
Project Status

The project should fully be complete in accordance with the A option. There are 2 robots on the board Alice and Bob. They both can turn. They both can move Forwards or backwards with a user inputted number of steps or if they just say move forwards or backwards alone with no units then they will try to move forwards or backwards 1 unit. The times are also updated only if the robot is actually moved. There is a lot of error checking done and if a robot is in the way it will say the way is blocked and say how much you can move and not move the bot. If the user tries to move the robot off the board it will remind the users of the board's dimensions and legal spaces and then tell them what they tried to move to and not move the robot. The board is 200x200 and labeled on mine as 0-199 inclusive.

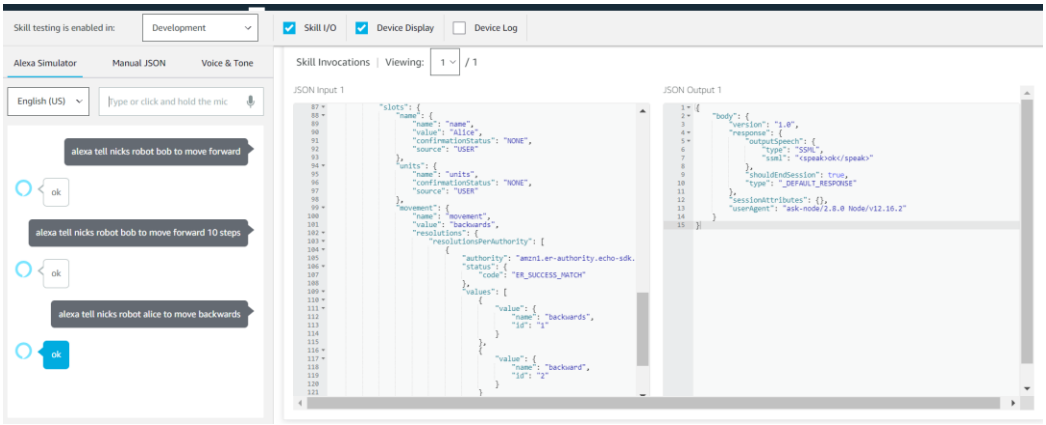
Voice User Interface Interactions

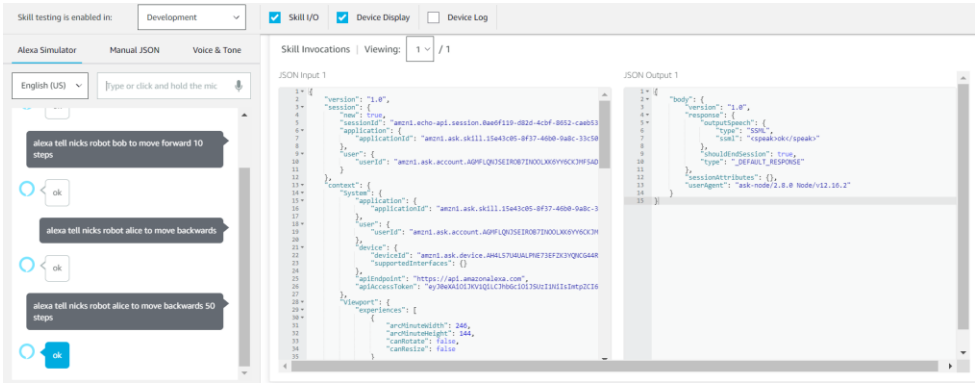
You can use either Bob or Alice for the name

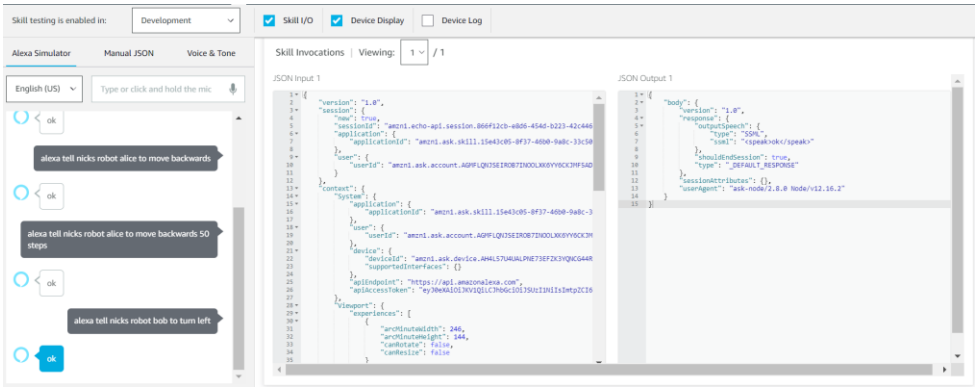
- Alexa tell nicks robot bob to move forward
  - 

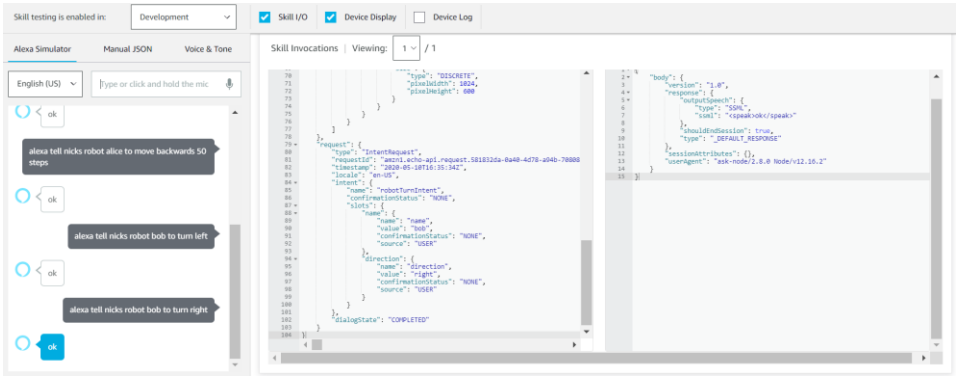
- Alexa tell nicks robot bob to move forward 10 steps
  - 

- Alexa tell nicks robot alice to move backwards

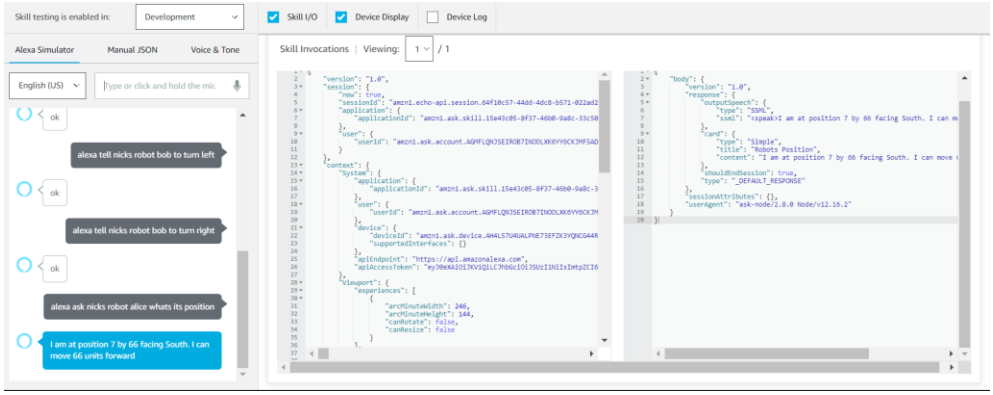
- 

- Alexa tell nicks robot alice to move backwards 50 steps
  - 

- Alexa tell nicks robot bob to turn left
  - 

- Alexa tell nicks robot bob to turn right
  - 

- Alexa ask nicks robot alice what its position

- 

URL to the S3 page

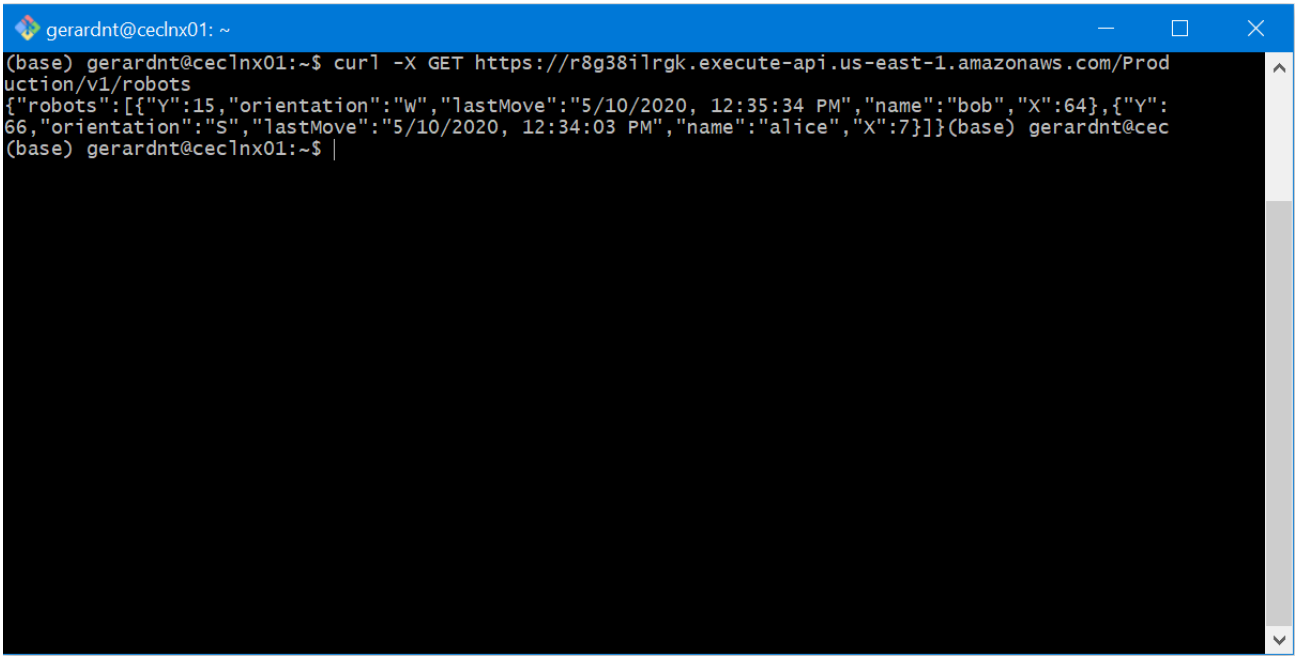
https://gerardnt-451-s20-bucket1.s3.amazonaws.com/finalProject/index.html

API Gateway link

https://r8g38ilrgk.execute-api.us-east-1.amazonaws.com/Production/v1/robots

- This is my only resource on my API gateway which is a GET method which returns the robots information from the database

Curl Calls

- 

- There is only one curl call because the API only has once resource that returns the robots information

- JSON Formatted


```
{
   "robots":[
      {
         "Y":15,
         "orientation":"W",
         "lastMove":"5/10/2020, 12:35:34 PM",
         "name":"bob",
         "X":64
      },
      {
         "Y":66,
         "orientation":"S",
         "lastMove":"5/10/2020, 12:34:03 PM",
         "name":"alice",
         "X":7
      }
   ]
}
```


Gitlab link

- https://gitlab.csi.miamioh.edu/gerardnt/cse451-gerardnt-web/tree/master/finalProject
- alexaRobotInteraction
  - The JS file for the Lambda Function alexaRobotInteraction
- getRobotsLocation.js
  - The JS file for the lambda function for the API-Gateway that returns the robot data
- Index.html, robot.js, robotDrawing.js
  - Provided files where I made updates in order to show the robots on the canvas

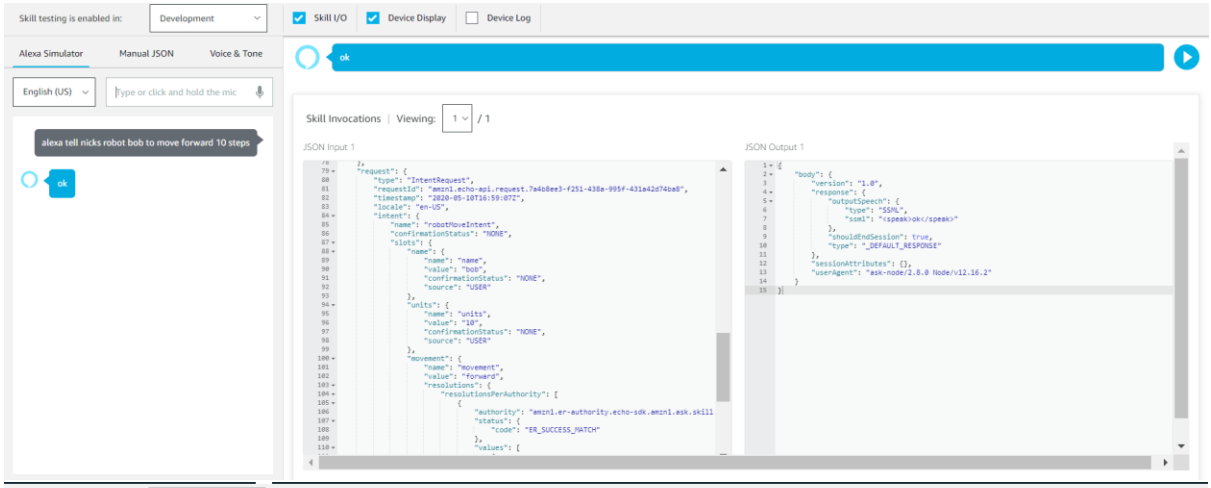
Lambda Skills name

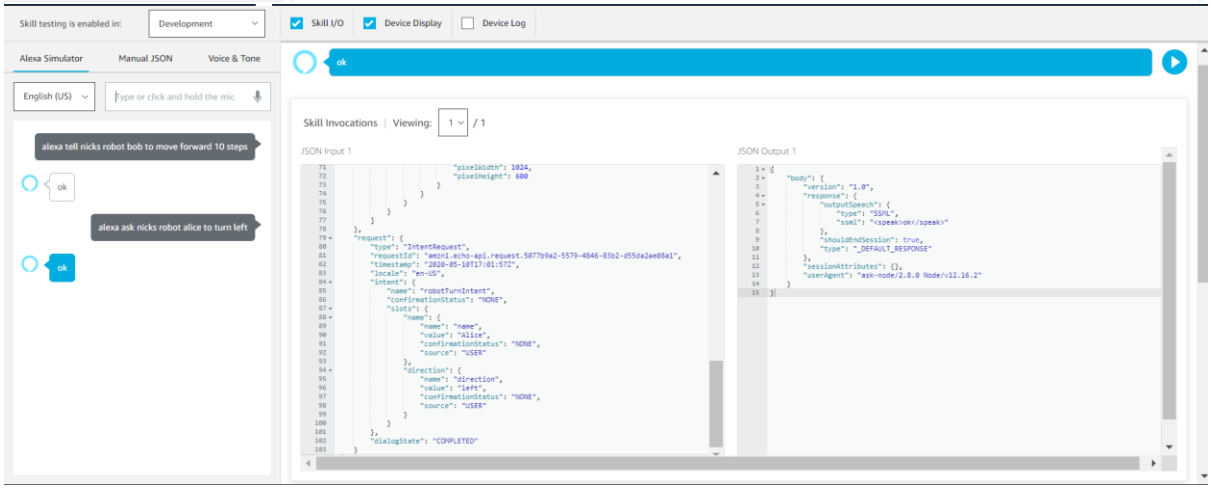
- alexaRobotInteraction
  - Interaction with Alexa and the robots
- getRobotsLocation
  - gets the robots information to display the information of the website

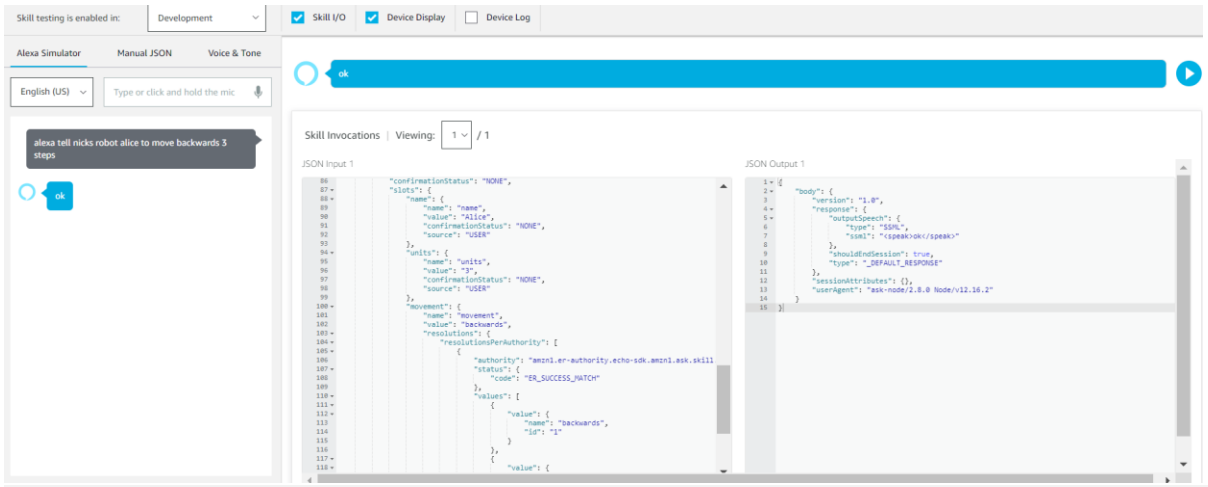
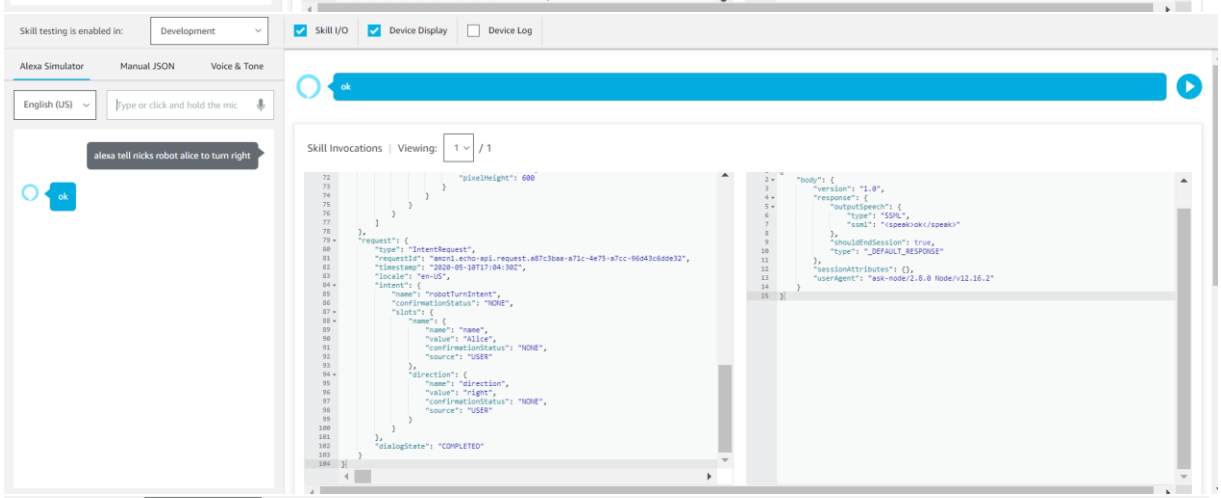
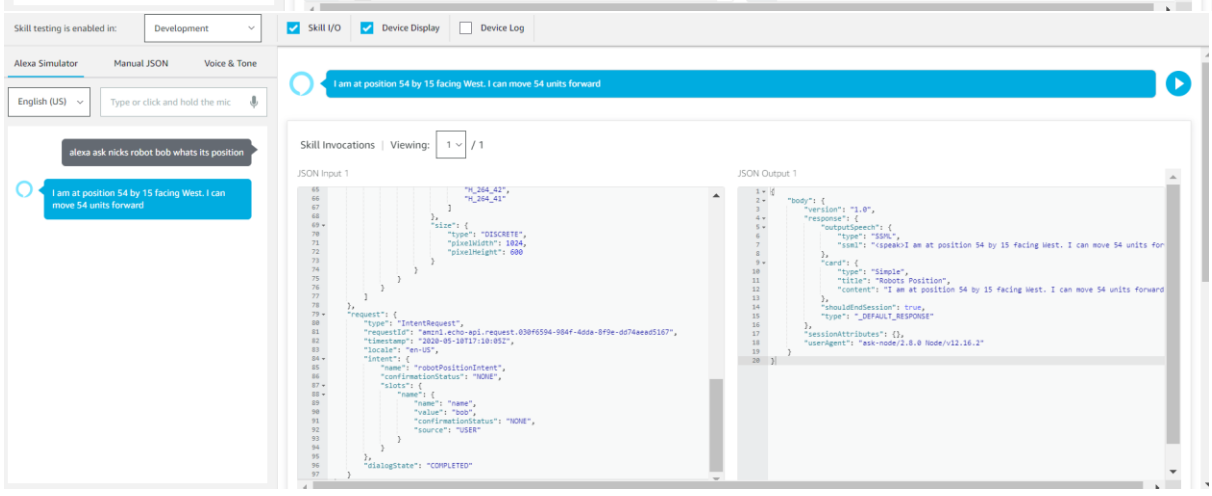
API-gateway Name

- Robots-API

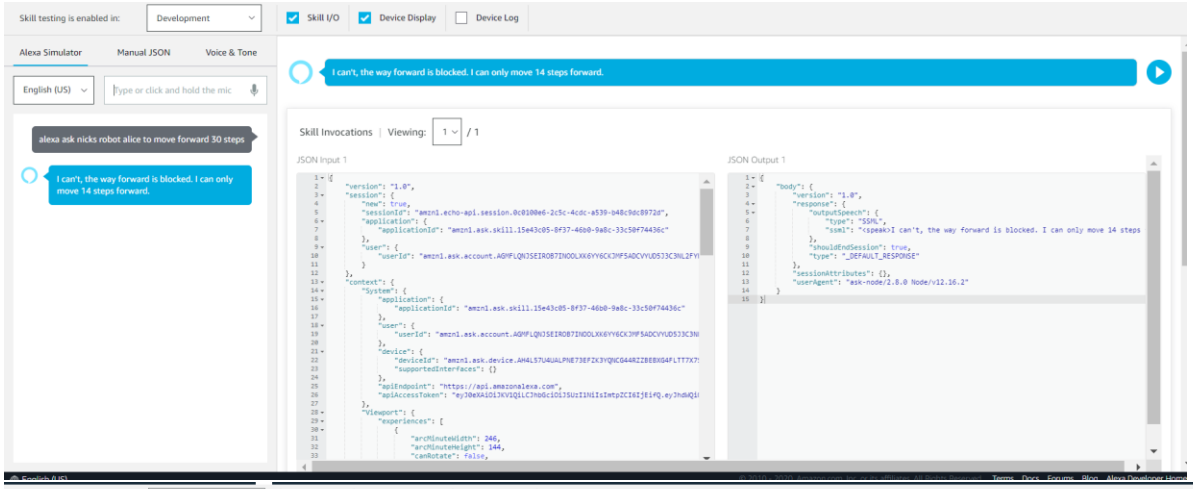
Alexa Developer Console Interactions

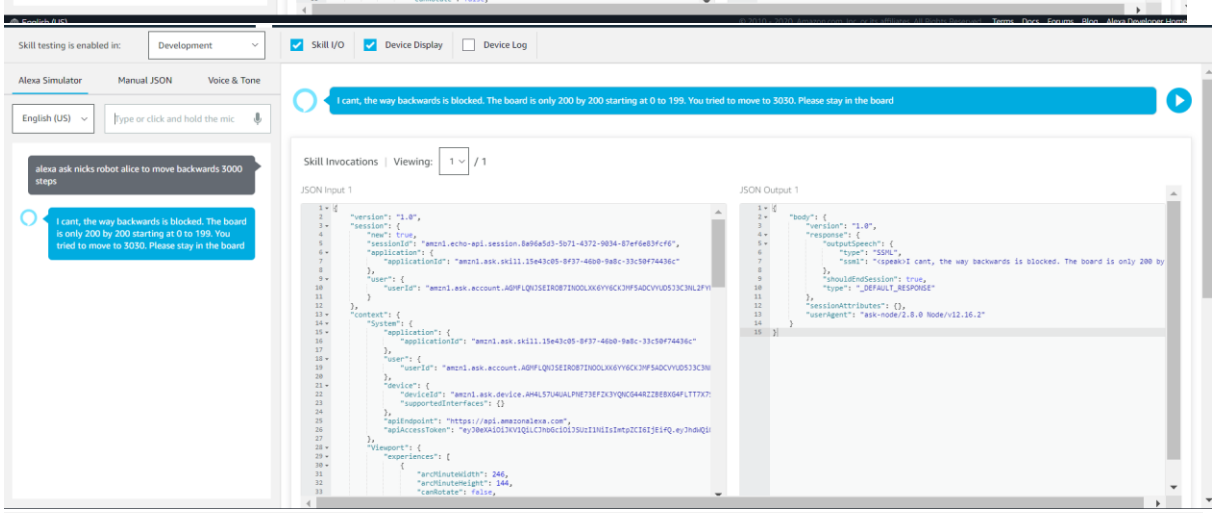
- Non-error Calls
  - 

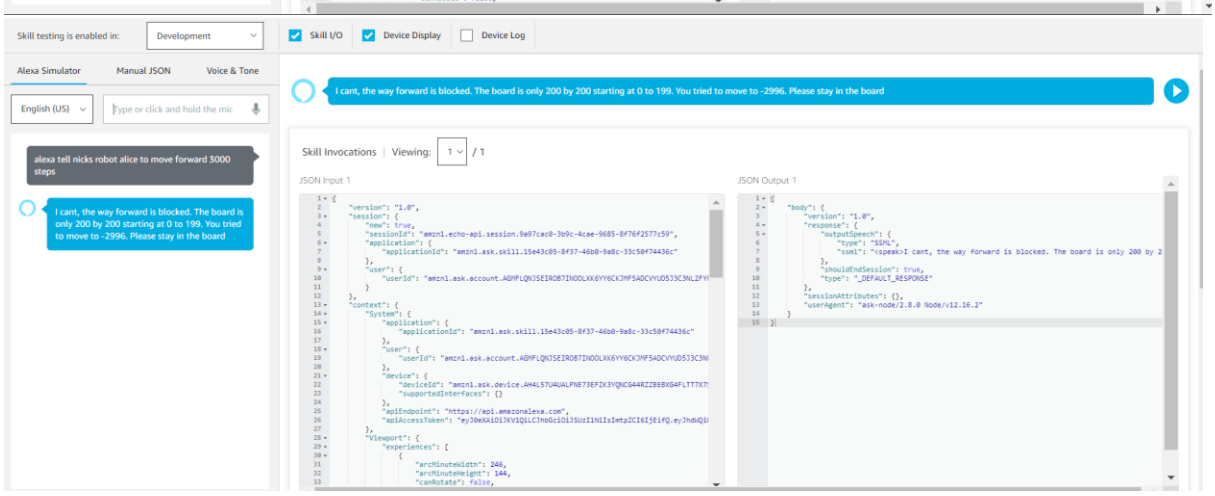
  - 

- 
Skill testing is enabled in:
Development
Skill I/O
Device Display
Device Log
Alexa Simulator
Manual JSON
Voice & Tone
English (US)
Type or click and hold the mic
alexa tell nicks robot alice to move backwards 3 steps
ok
Skill Invocations
Viewing:
1
/ 1
JSON Input 1
JSON Output 1
- 
Skill testing is enabled in:
Development
Skill I/O
Device Display
Device Log
Alexa Simulator
Manual JSON
Voice & Tone
English (US)
Type or click and hold the mic
alexa tell nicks robot alice to turn right
ok
Skill Invocations
Viewing:
1
/ 1
- 
Skill testing is enabled in:
Development
Skill I/O
Device Display
Device Log
Alexa Simulator
Manual JSON
Voice & Tone
English (US)
Type or click and hold the mic
alexa ask nicks robot bob whats its position
I am at position 54 by 15 facing West. I can move 54 units forward
Skill Invocations
Viewing:
1
/ 1
JSON Input 1
JSON Output 1

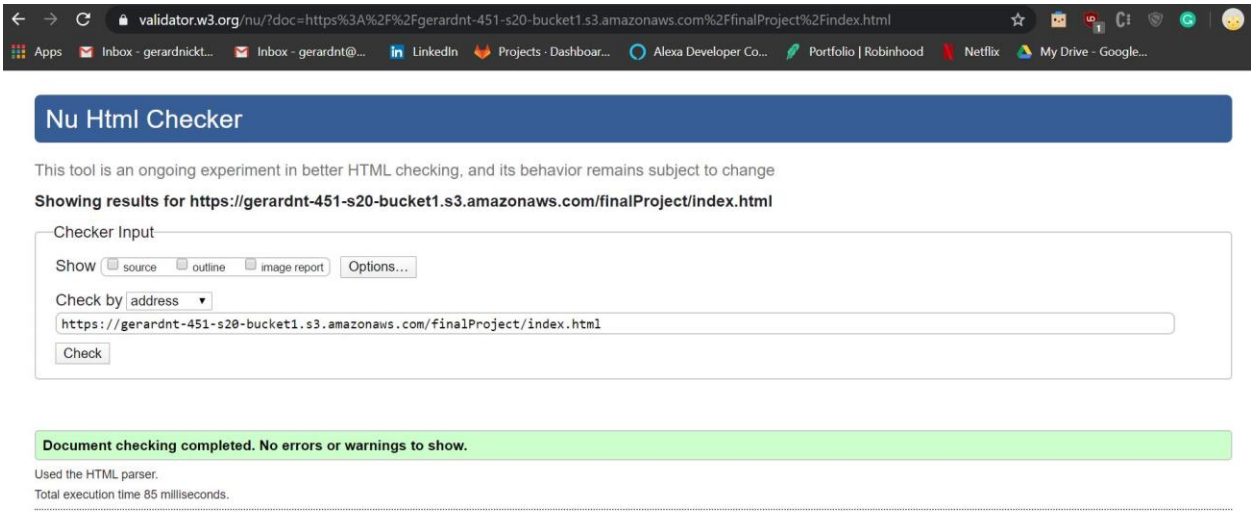
- Error Calls


Skill testing is enabled in:
Development
Skill I/O
Device Display
Device Log
Alexa Simulator
Manual JSON
Voice & Tone
English (US)
Type or click and hold the mic
alexa ask nicks robot alice to move forward 30 steps
I can't, the way forward is blocked. I can only move 14 steps forward.
I can't, the way forward is blocked. I can only move 14 steps forward.
Skill Invocations | Viewing: 1 / 1
JSON Input 1
JSON Output 1


Skill testing is enabled in:
Development
Skill I/O
Device Display
Device Log
Alexa Simulator
Manual JSON
Voice & Tone
English (US)
Type or click and hold the mic
alexa ask nicks robot alice to move backwards 3000 steps
I cant, the way backwards is blocked. The board is only 200 by 200 starting at 0 to 199. You tried to move to 3030. Please stay in the board
I cant, the way backwards is blocked. The board is only 200 by 200 starting at 0 to 199. You tried to move to 3030. Please stay in the board
Skill Invocations | Viewing: 1 / 1
JSON Input 1
JSON Output 1


Skill testing is enabled in:
Development
Skill I/O
Device Display
Device Log
Alexa Simulator
Manual JSON
Voice & Tone
English (US)
Type or click and hold the mic
alexa tell nicks robot alice to move forward 3000 steps
I cant, the way forward is blocked. The board is only 200 by 200 starting at 0 to 199. You tried to move to -2996. Please stay in the board
I cant, the way forward is blocked. The board is only 200 by 200 starting at 0 to 199. You tried to move to -2996. Please stay in the board
Skill Invocations | Viewing: 1 / 1
JSON Input 1
JSON Output 1

W3c Validation



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