HELLO ALEXA!

BUILD YOUR FIRST ALEXA SKILL

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http://bit.ly/GHC18_HelloAlexa

#GHC18

INTERACTION WITH ALEXA

Alexa ask *hello app* to **say hello to** ***Grace***

Wake word — *Skill name* — Sample utterance — Slot

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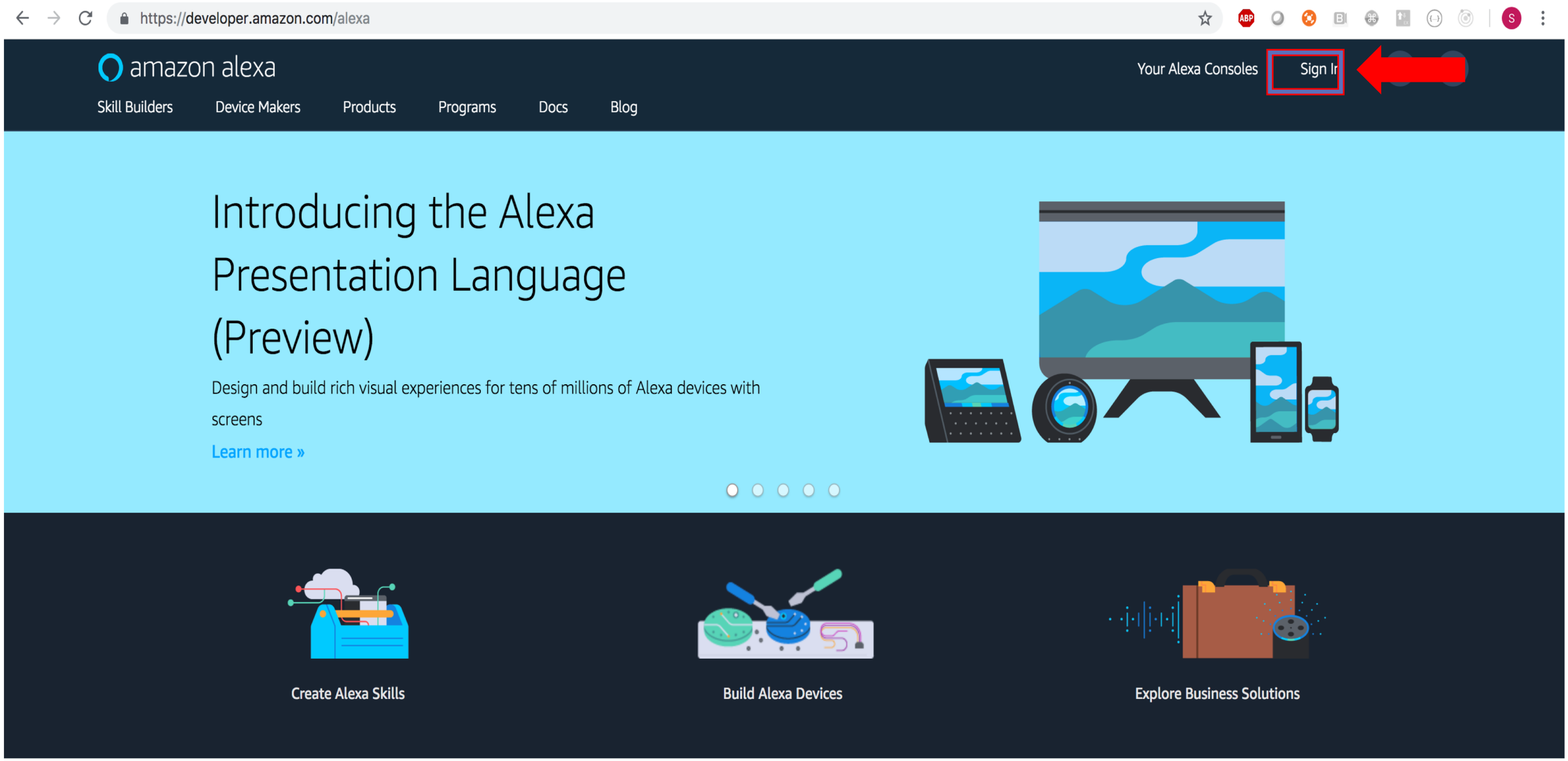
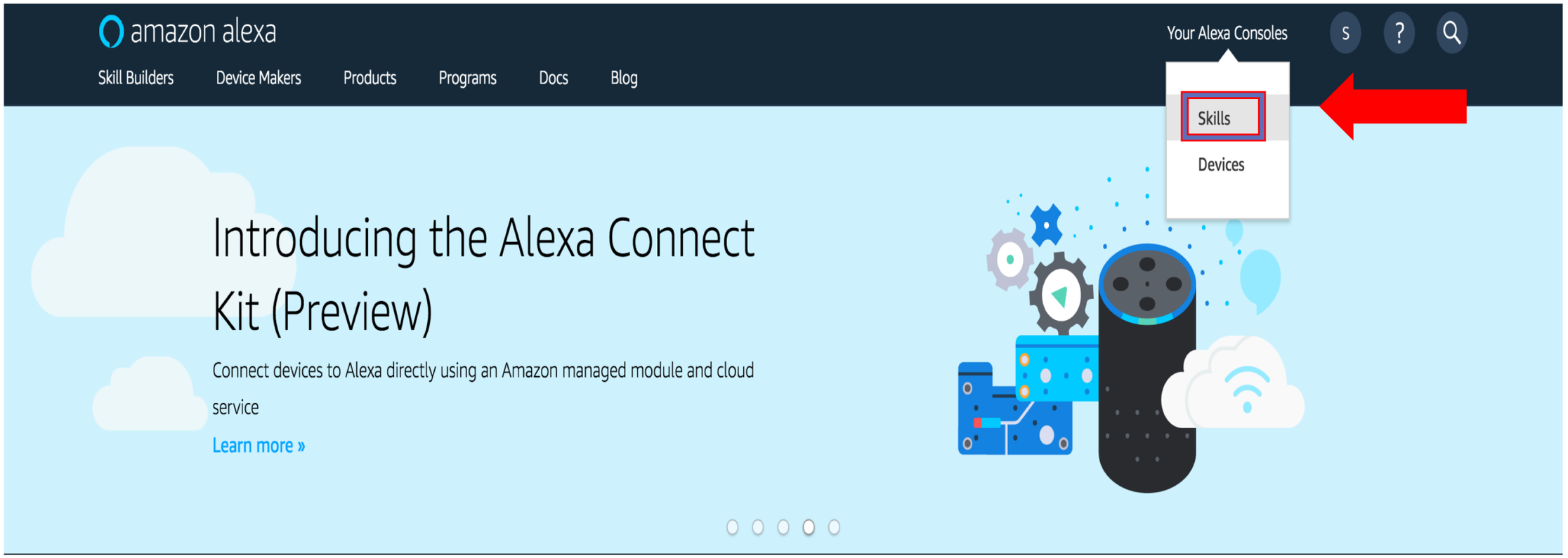
STEP 1: LOGIN TO DEVELOPER PORTAL

Login to developer portal at https://developer.amazon.com/alexa by clicking the **"Sign In"** button on the top right corner



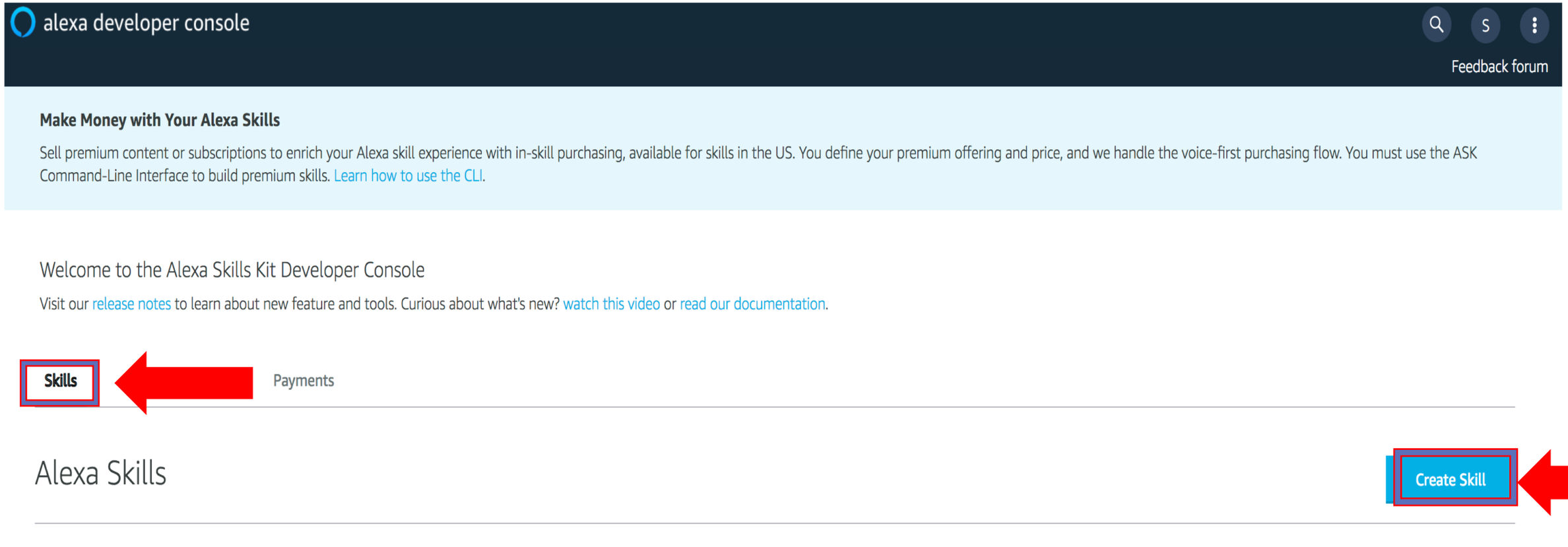
STEP 2:

Hover on **"Your Alexa Consoles"** on the top right and then click on "**Skills**".



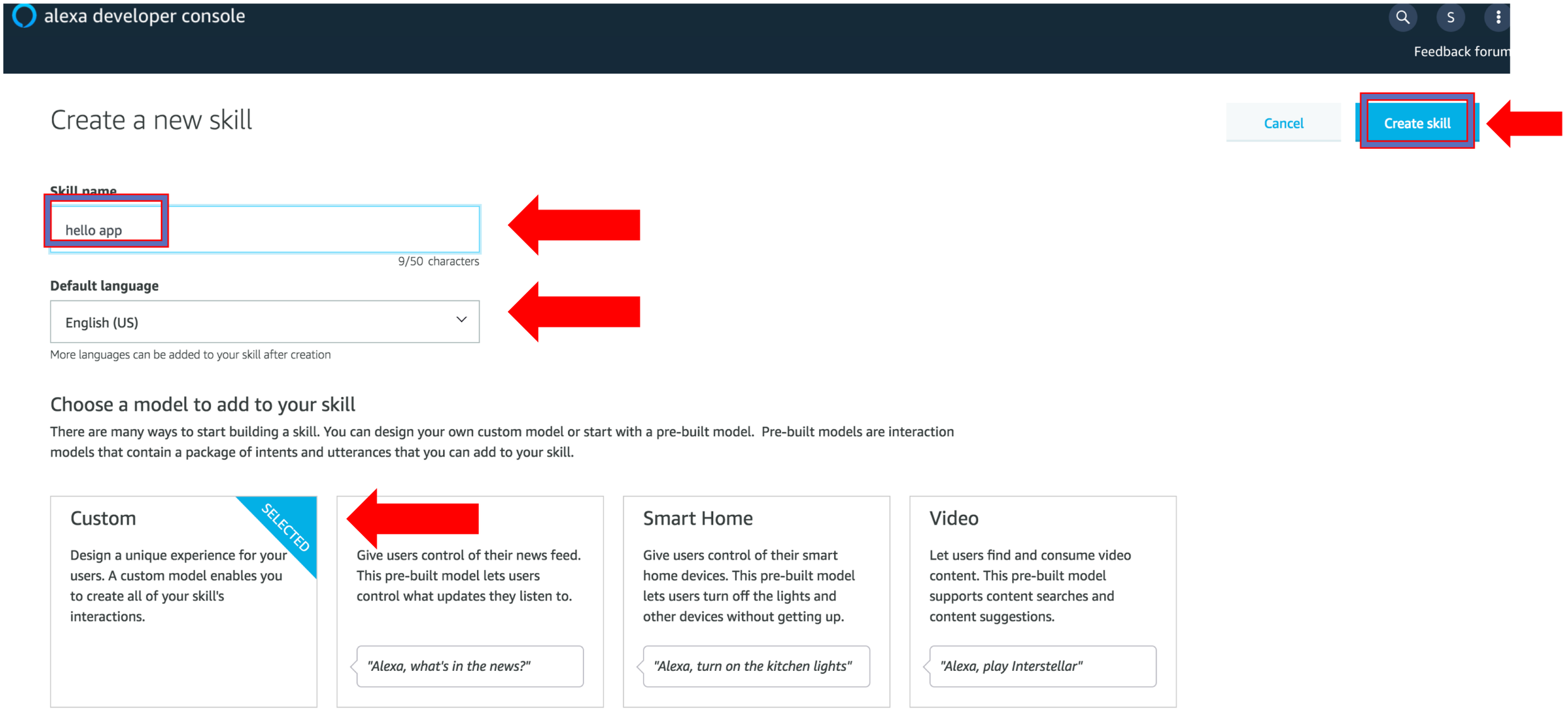
STEP 3:

Under the **“Skills”** tab click on click on **“Create Skill”** button



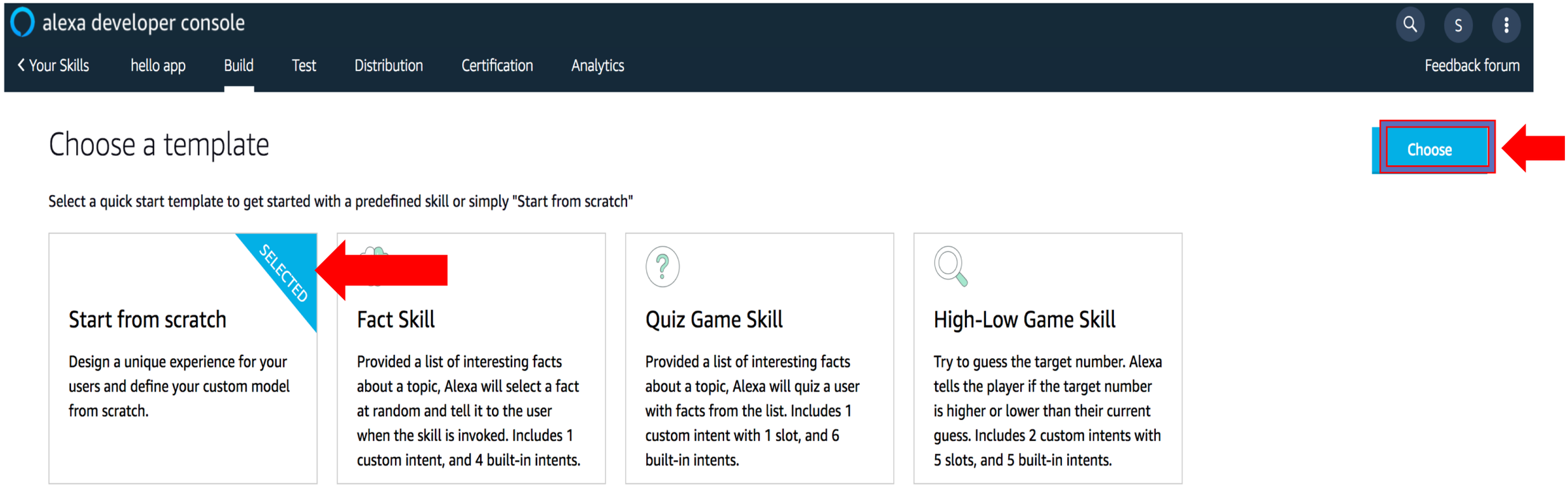
STEP 4:

Provide the **"Skill Name"** as ***hello app*** and retain the Default Language to be English (US). Ensure the **"Custom"** model is selected and click on the **"Create Skill"** Button



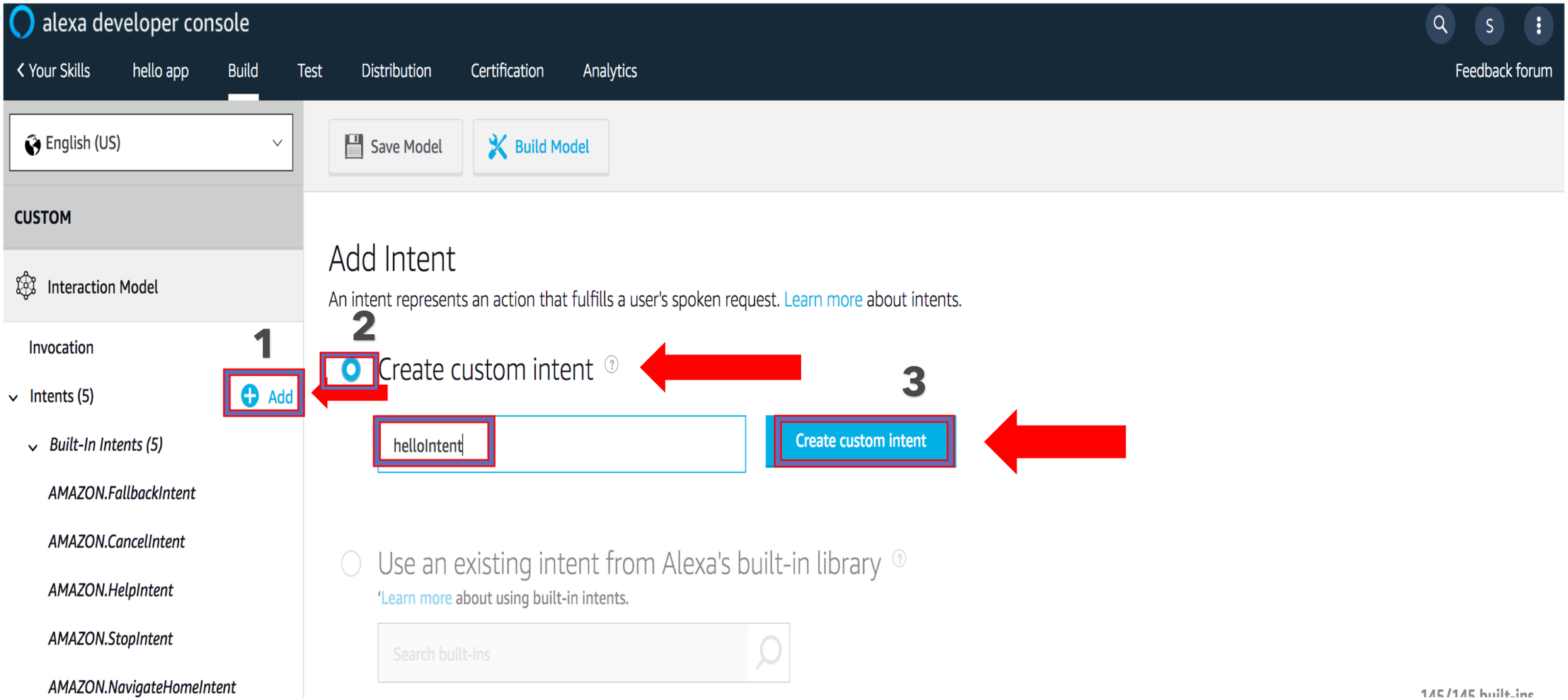
STEP 5:

Ensure that **“Start from scratch”** template is selected and click on **“Choose”** button on the top right



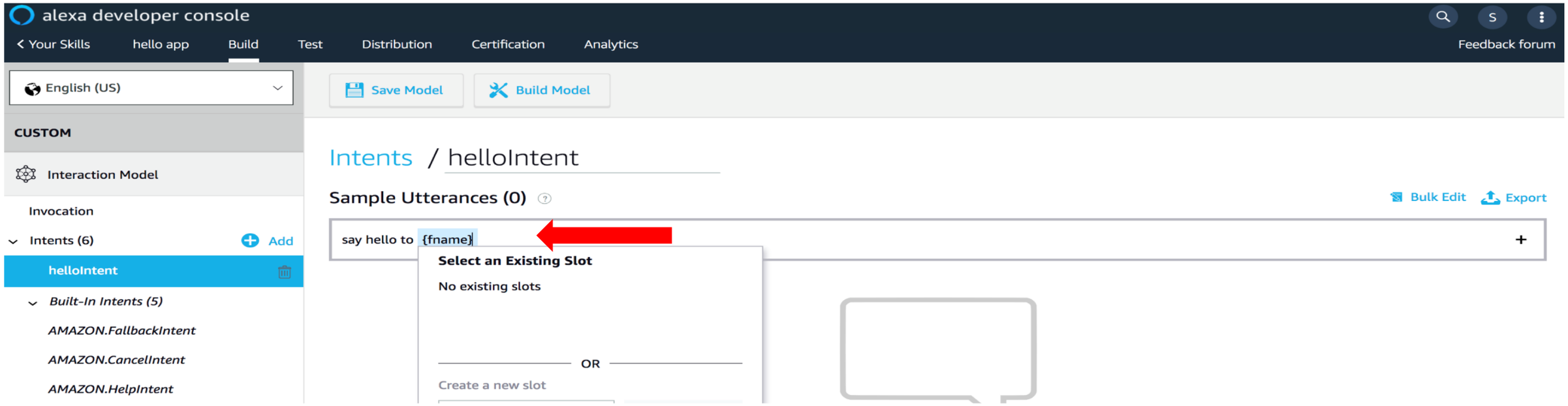
STEP 6:

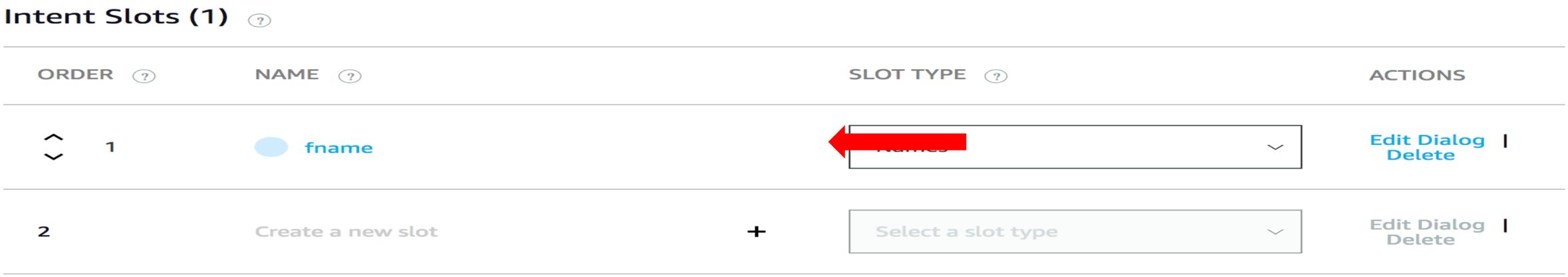
Click on **"Add"** next to Intents. Under **"Create custom intent"** provide the intent name as ***helloIntent*** and then click on the **"Create custom intent"** button.



STEP 7:

Under **"Sample Utterances"** type in ***say hello to {fname}*** and press enter. This will create a **"Intent Slots".**
Feel free to add more such sample utterances such as **wish {fname}**





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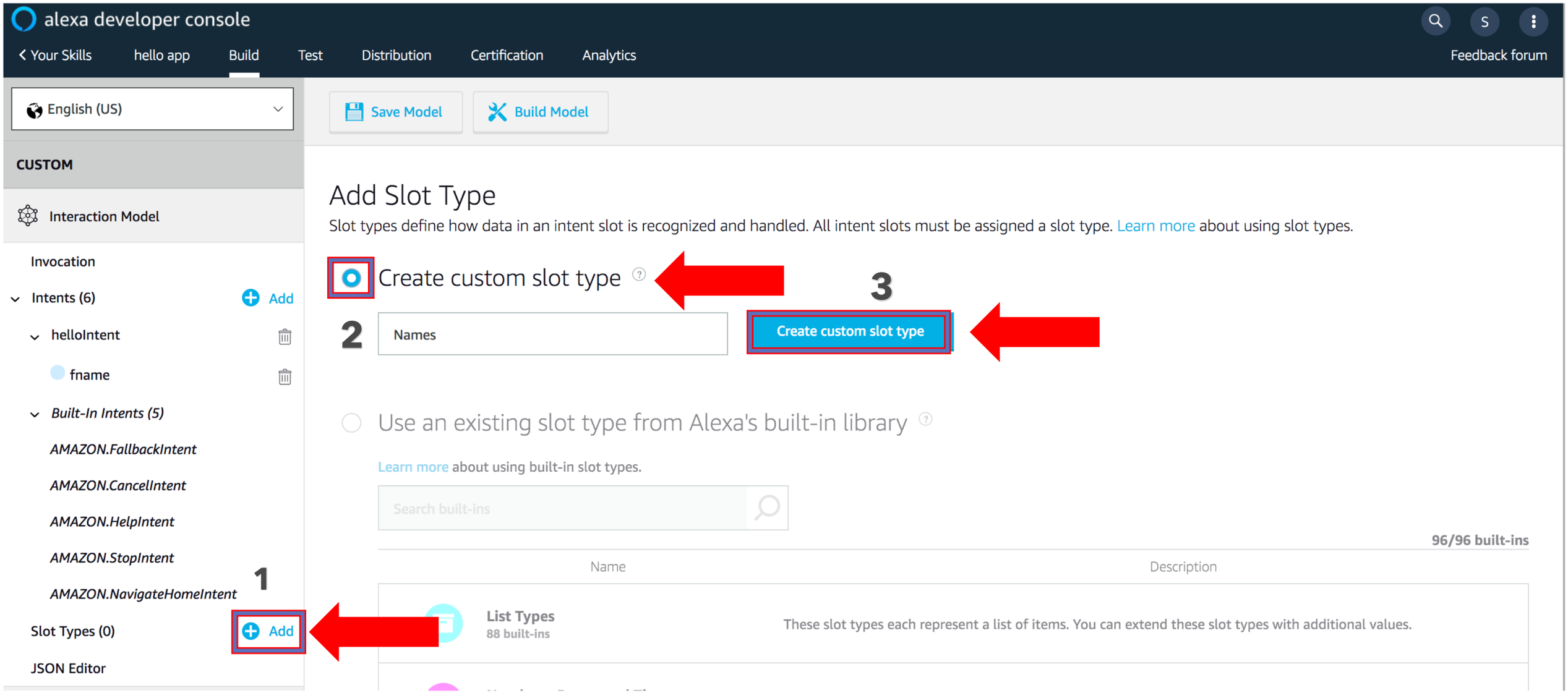
STEP 8:

Click on **"Add"** button next to the Slot Types and under Create custom slot type, create a type named ***Names*** and click on **"Create custom slot type"** button**.**



STEP 9:

Under the Slot Values add names. Eg: Adam, Grace etc

alexa developer console

Your Skills | hello app | Build | Test | Distribution | Certification | Analytics | Feedback forum

English (US)

Save Model | Build Model

CUSTOM

- Interaction Model
  - Invocation
  - Intents (6) — Add
    - helloIntent
    - fname
  - *Built-In Intents (5)*
    - *AMAZON.FallbackIntent*
    - *AMAZON.CancelIntent*
    - *AMAZON.HelpIntent*
    - *AMAZON.StopIntent*
    - *AMAZON.NavigateHomeIntent*
  - Slot Types (1) — Add
    - Names

Slot Types / Names

Slot Values (3) — Bulk Edit | Export | Search

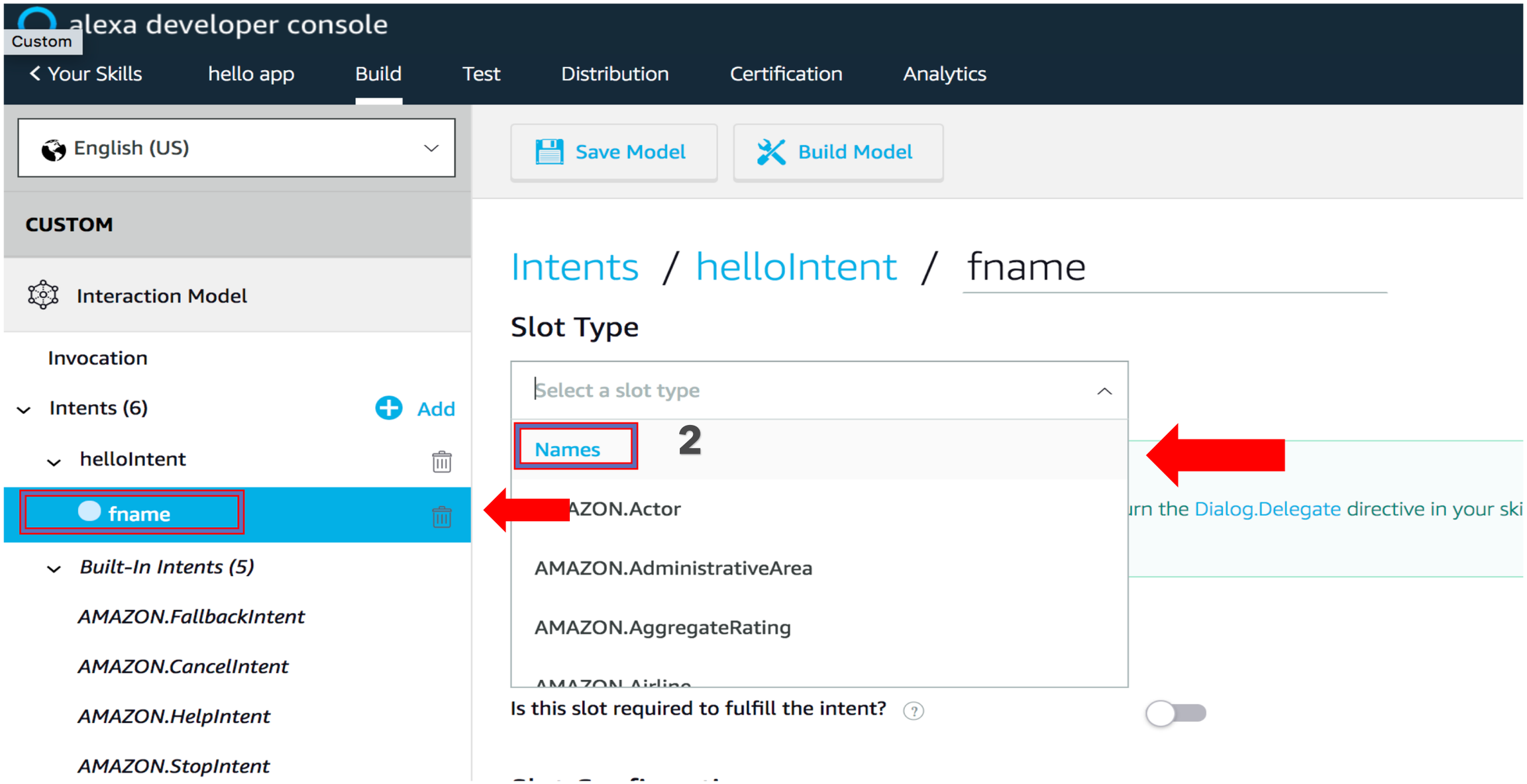
Enter a new value for this slot type +

VALUE	ID (OPTIONAL)	SYNONYMS (OPTIONAL)	
frank	Enter ID	Add synonym	+
adam	Enter ID	Add synonym	+
grace	Enter ID	Add synonym	+

1 – 3 of 3

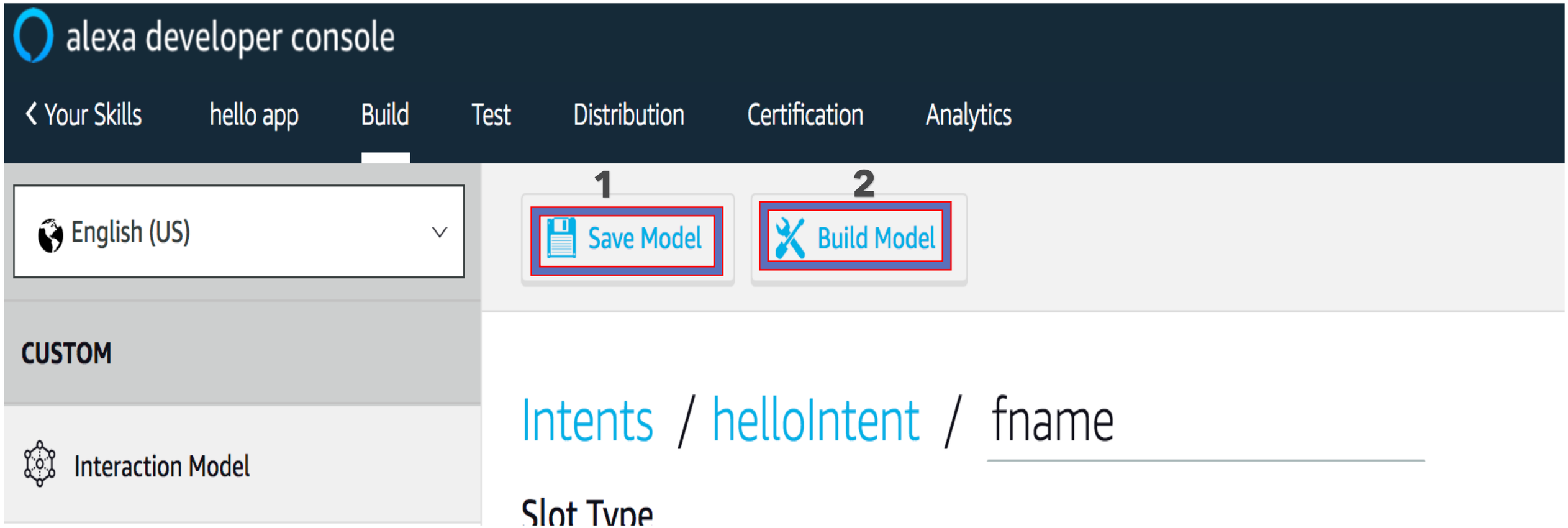
STEP 10:

Click on **“fname”** under helloIntent on the Left Nav and select the **“Slot Type”** as **“Names”**



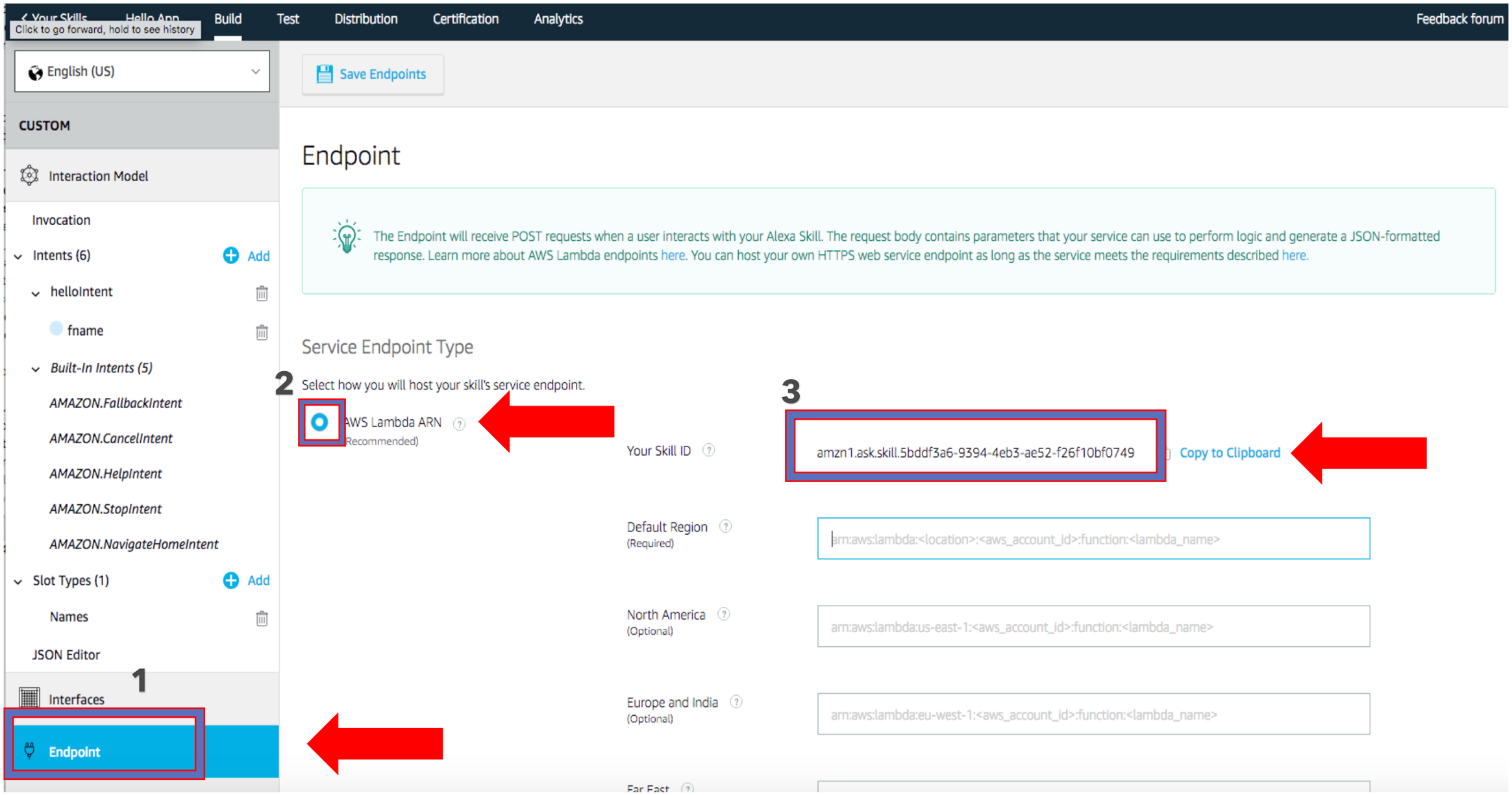
STEP 11:

Click on **"Save Model"** button. Once the Interaction Model is Saved Successfully, click on **"Build Model"**



STEP 12:

Once the Build is successful click on **"Endpoint"** and click on the **"AWS Lambda ARN"** then copy the **"Skill Id"**



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RECAP

- Skill “hello *app*”
- Intent – *“helloIntent”*
- Sample Utterance
- Slot – *“fname”*
- Custom Slot Type – *“Names”*
- Skill Id

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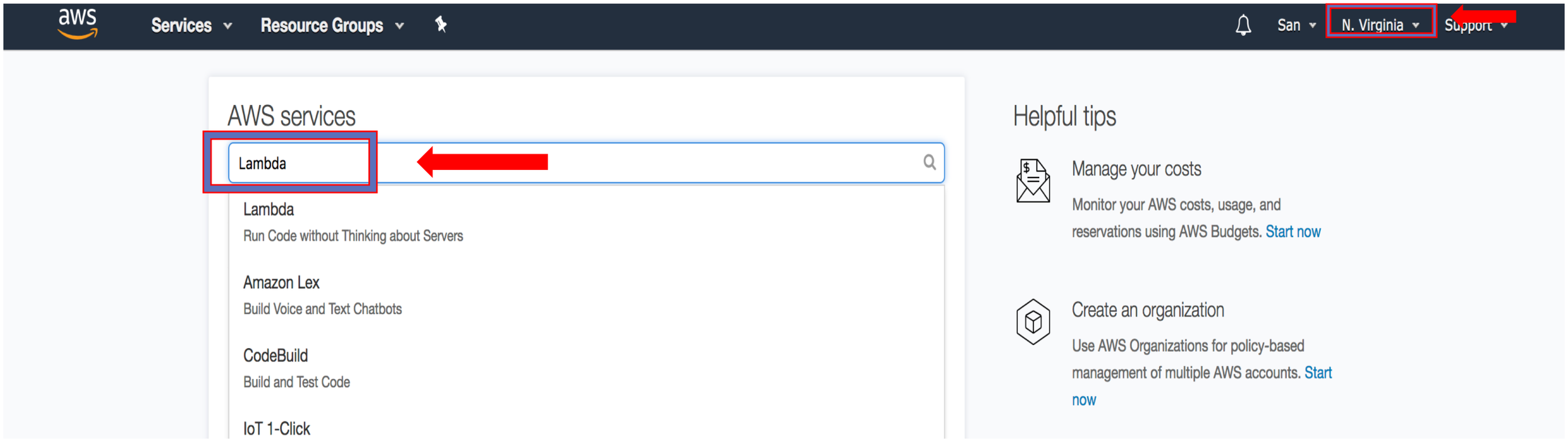
STEP 13:

Sign into your AWS account using the following link.

https://signin.aws.amazon.com/

STEP 14:

Once in the portal ensure you are on **"N.Virginia"** or any of the regions that support lambda function for custom skills. Then type in "**Lambda**" under the AWS Service and select it.

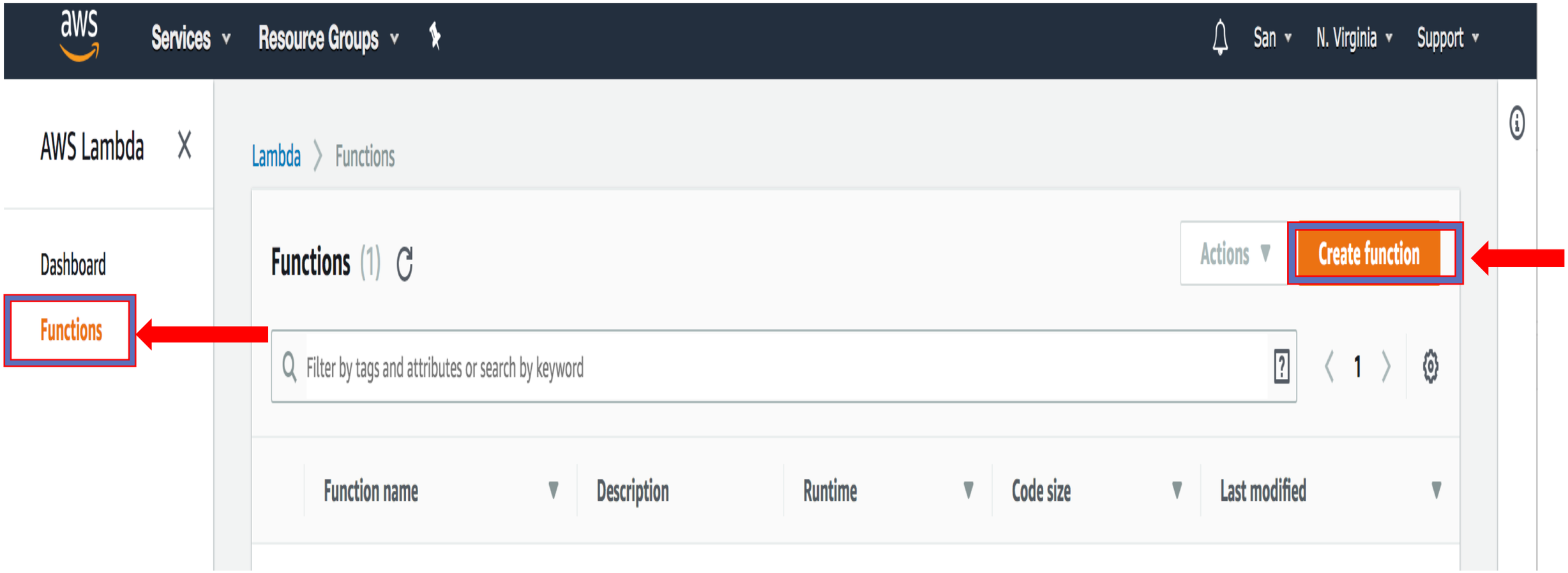


Eg:

- Asia Pacific(Tokyo)
- EU (Ireland)
- US East (N Virginia)
- US West (Oregon)

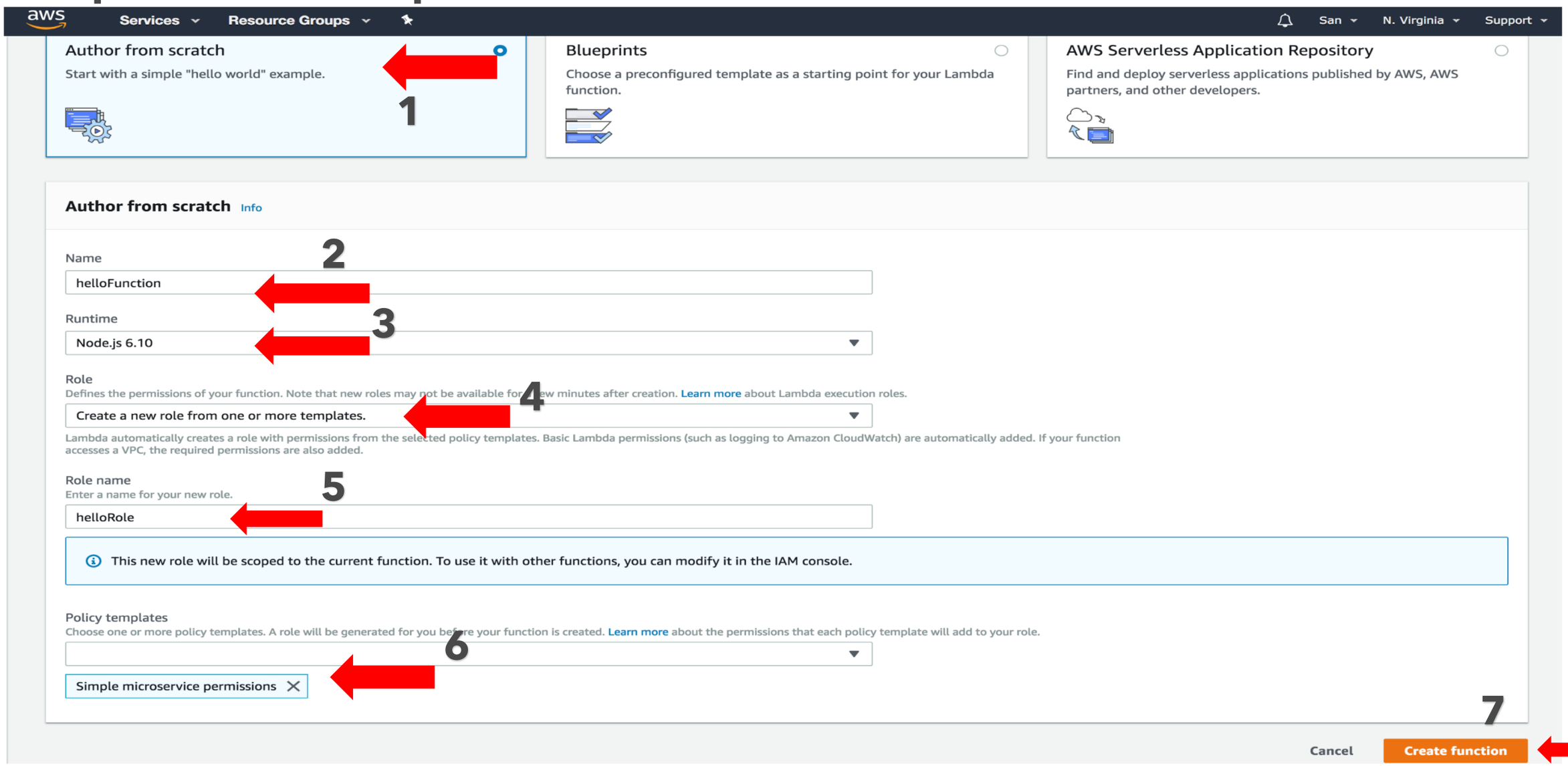
STEP 15:

Once in the AWS Lambda portal, ensure **"Functions"** is selected in the left nav and then click on the **"Create function"** button



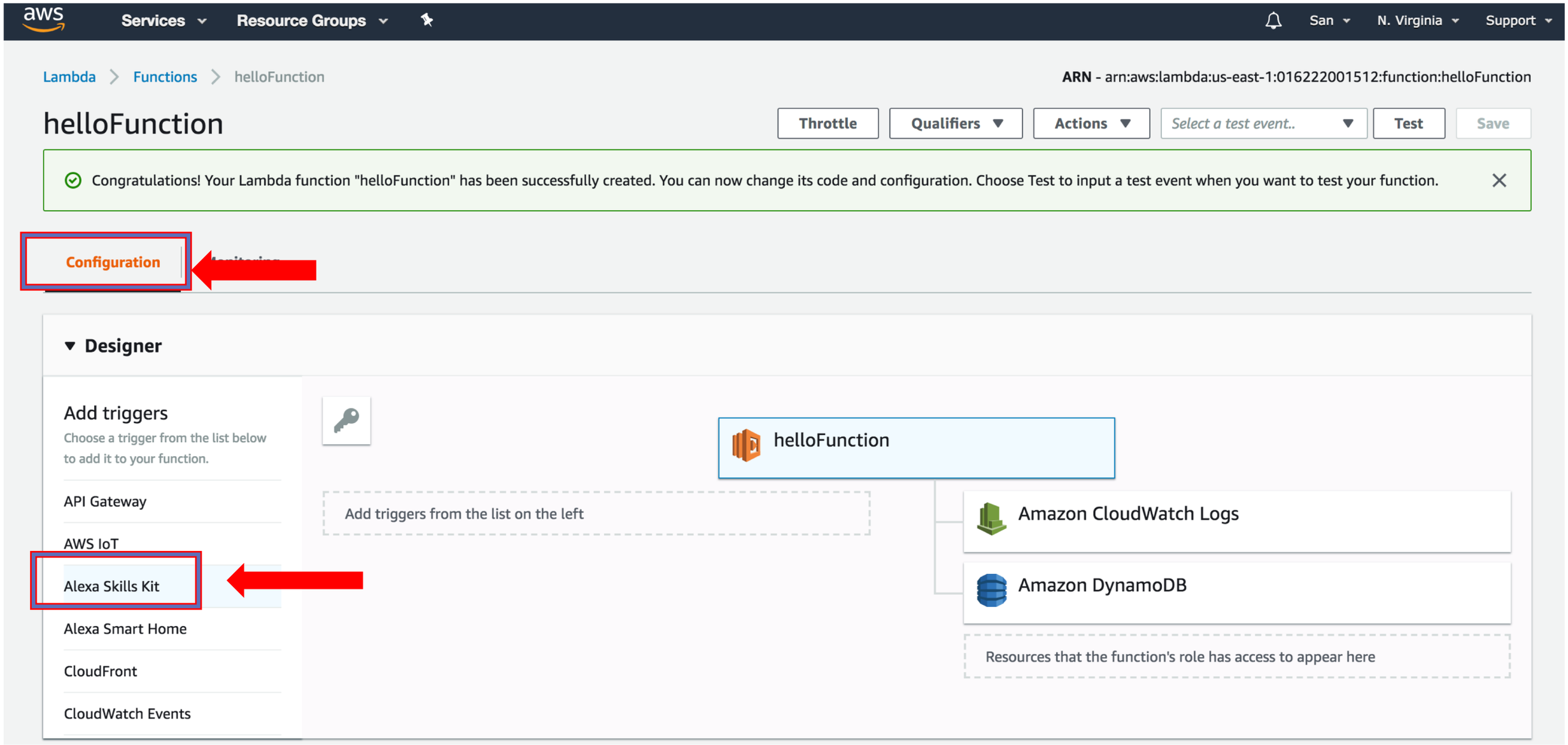
STEP 16:

Once in create function select **"Author from scratch"** and then give the name of the function as ***helloFunction.*** Select the runtime env as ***Node.js***, select Role as ***Create new role from template(s)*** , name your role as ***helloRole*** and pick the Policy Template to be "**Simple Microservice permissions"**. Then click on **"Create function"** button.



STEP 17:

Make sure you are in the **"Configuration"** tab and select **"Alexa Skill Kit"** from the left nav.



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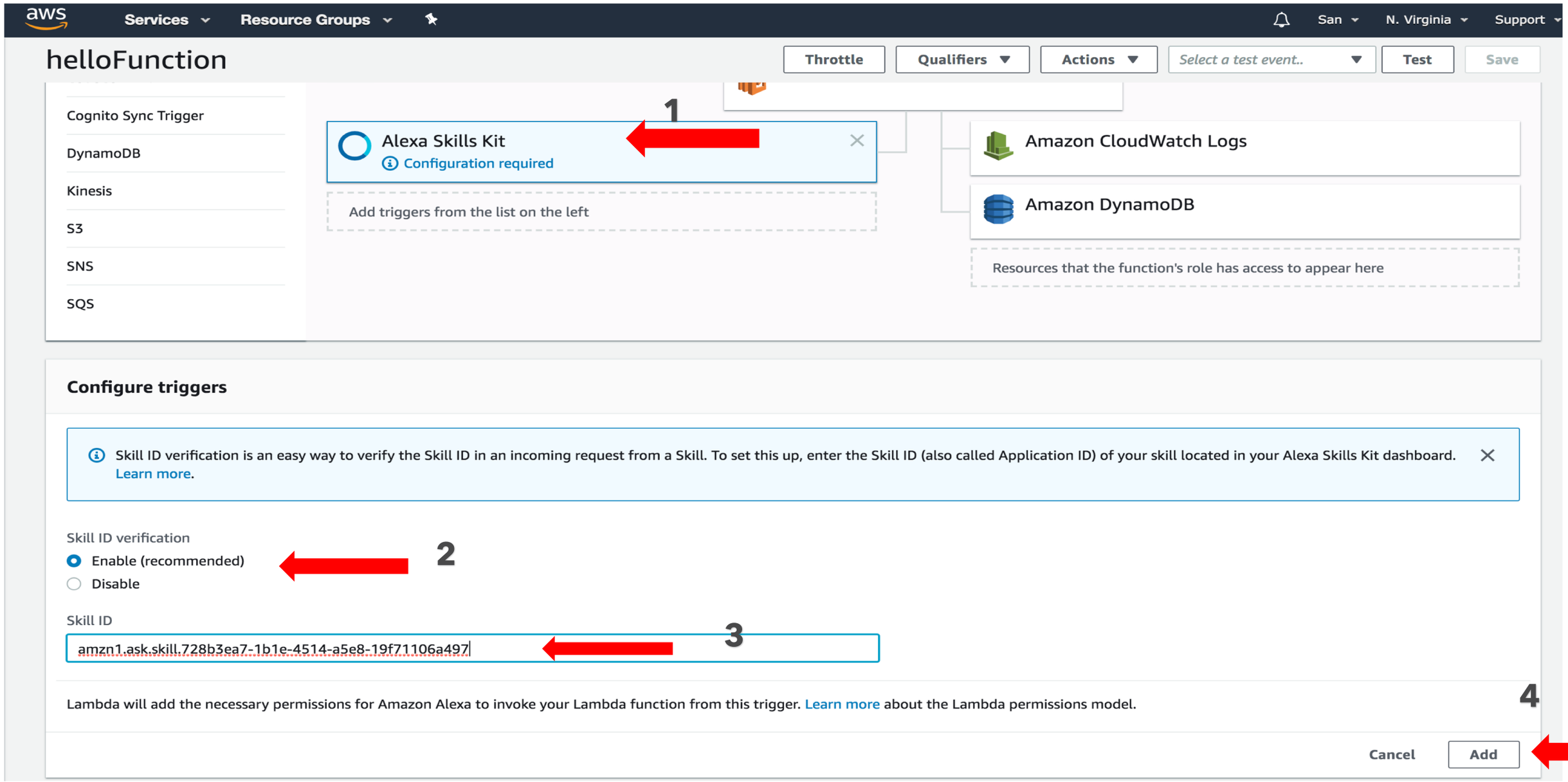
STEP 18:

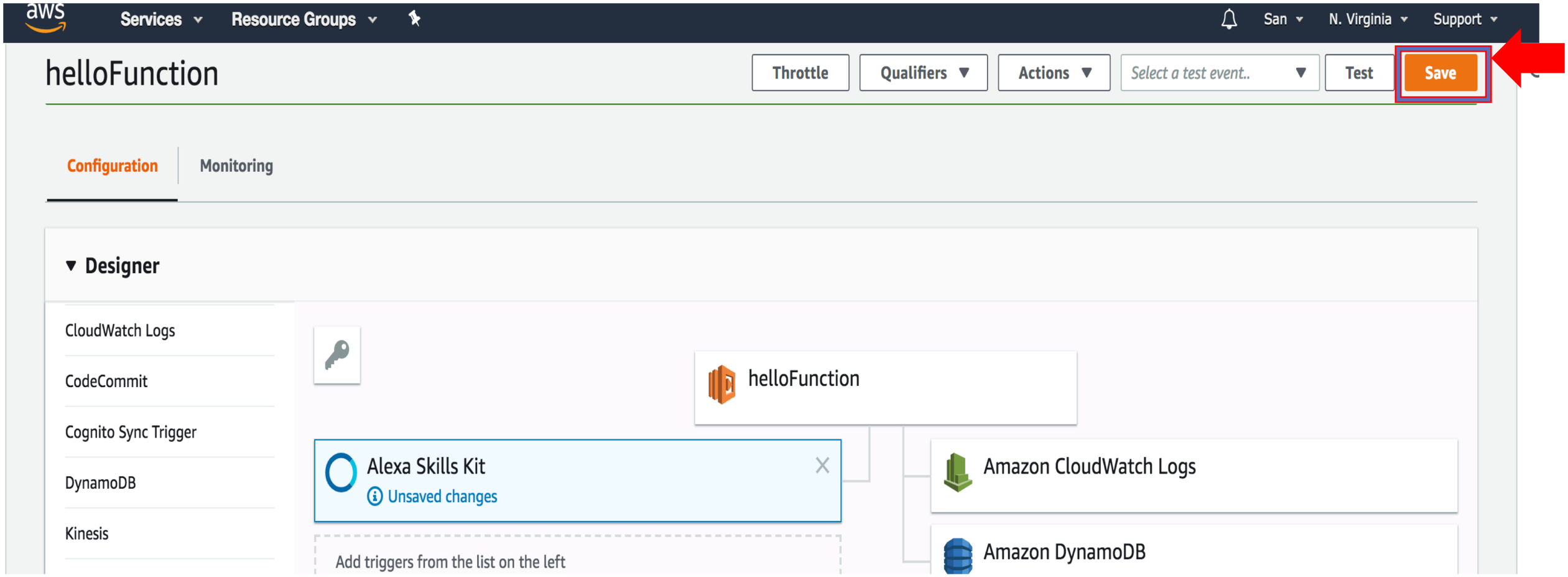
Select **"Alexa Skills Kit"**. Under Configure triggers select **"Enabled"** under the Skill Id verification and provide the Skill Id that we got from Step 13 and click on **"Add"** button.



http://bit.ly/GHC18_HelloAlexa

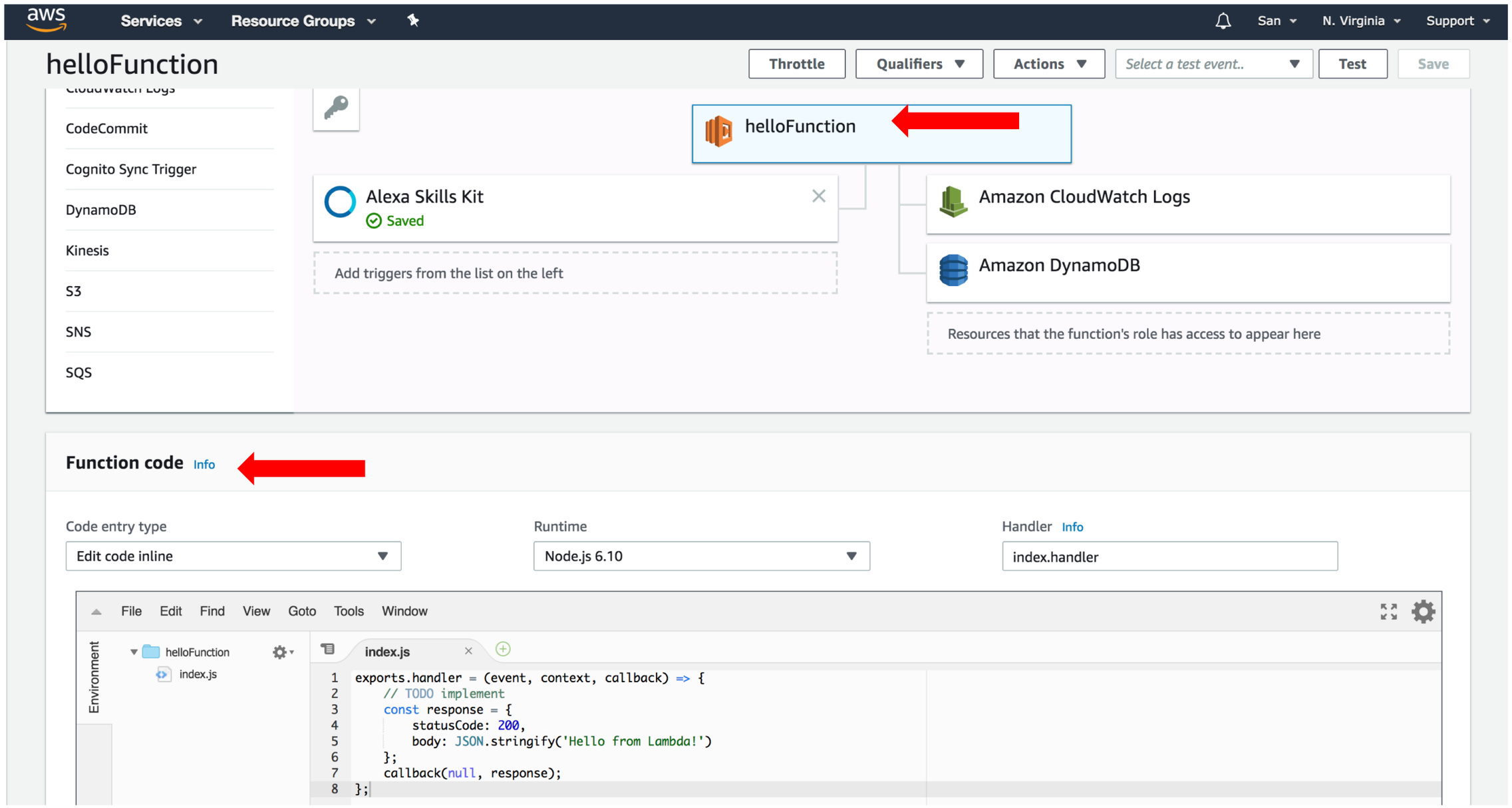
STEP 19:

Click on **"Save"** button on the top right corner

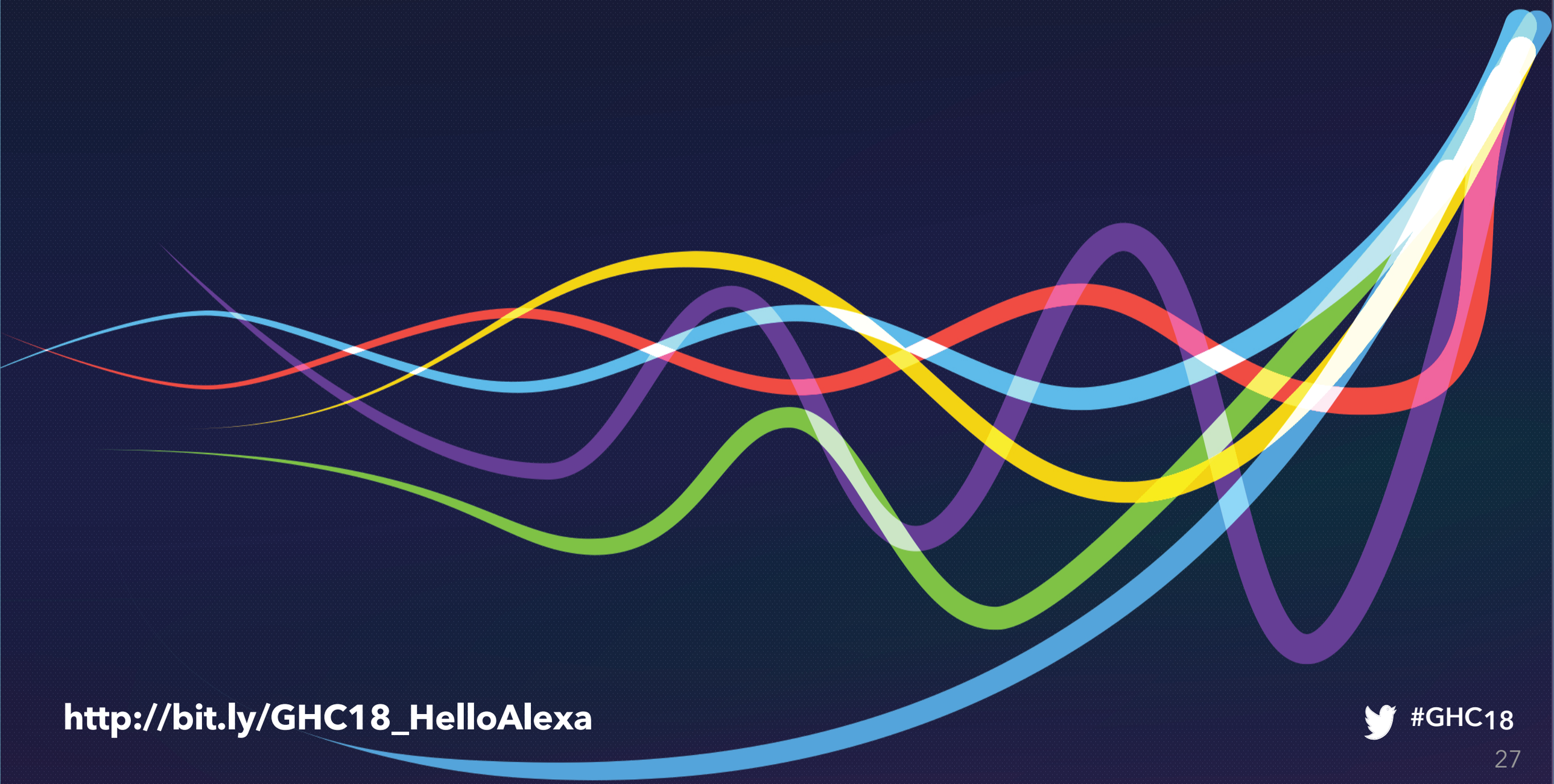


STEP 20:

Click on the **"helloFunction"**, then you will get the Function Code Tab below where in you will be able to enter the code.



CODE...



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#GHC18

- Launch Request:

    Alexa ask *hello app*

- Intent Request:

    Alexa ask hello app to say hello to Grace

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#GHC18

REQUEST:


```
{
        "session": {
                "sessionId": "sessionId",
        },
        "application": {
                "applicationId": "amzn1.ask.skill.2e662fe0-51bb-4029-81dc-7521a74d1cc2"
                }
        },
        "version": "1.0",
        "request": {
                "intent": {
                        ”name": "helloIntent"
                        "slots": {
                                "fname": {
                                "name": "fname",
                                "value": "Grace"
                                }
                        },
                },
        "type": "IntentRequest",
        "requestId": "requestId"
        }
}
```

RESPONSE:

```
{
  "version": "1.0",
  "response": {
    "outputSpeech": {
      "type": "PlainText",
      "text": "Hello Grace. Welcome to Grace Hopper!"
    },
    "shouldEndSession": true
}
```

LAUNCH REQUEST

```
'use strict';
exports.handler = (event, context) => {
    var request = event.request;
    if(request.type === "LaunchRequest") {
        let response = getResponse({
            output: "Welcome to Hello App.
                        Would you like to say Hello to someone?",
            reprompt: true,
            endSession: false
        });
        context.succeed(response);
    } else {
            context.fail("Unknown intent name");
        }

}
```

```
function getResponse (opts) {
    var response = {
        version: "1.0",
        response: {
            outputSpeech: {
                type: "PlainText",
                text: opts.output
            },
            shouldEndSession: opts.endSession
        }
    };
    if(opts.reprompt) {
        response.response.reprompt = {
            outputSpeech: {
                type: "PlainText",
                text: "Would you like to wish someone?"
            }
        };
    } return response;
}
```

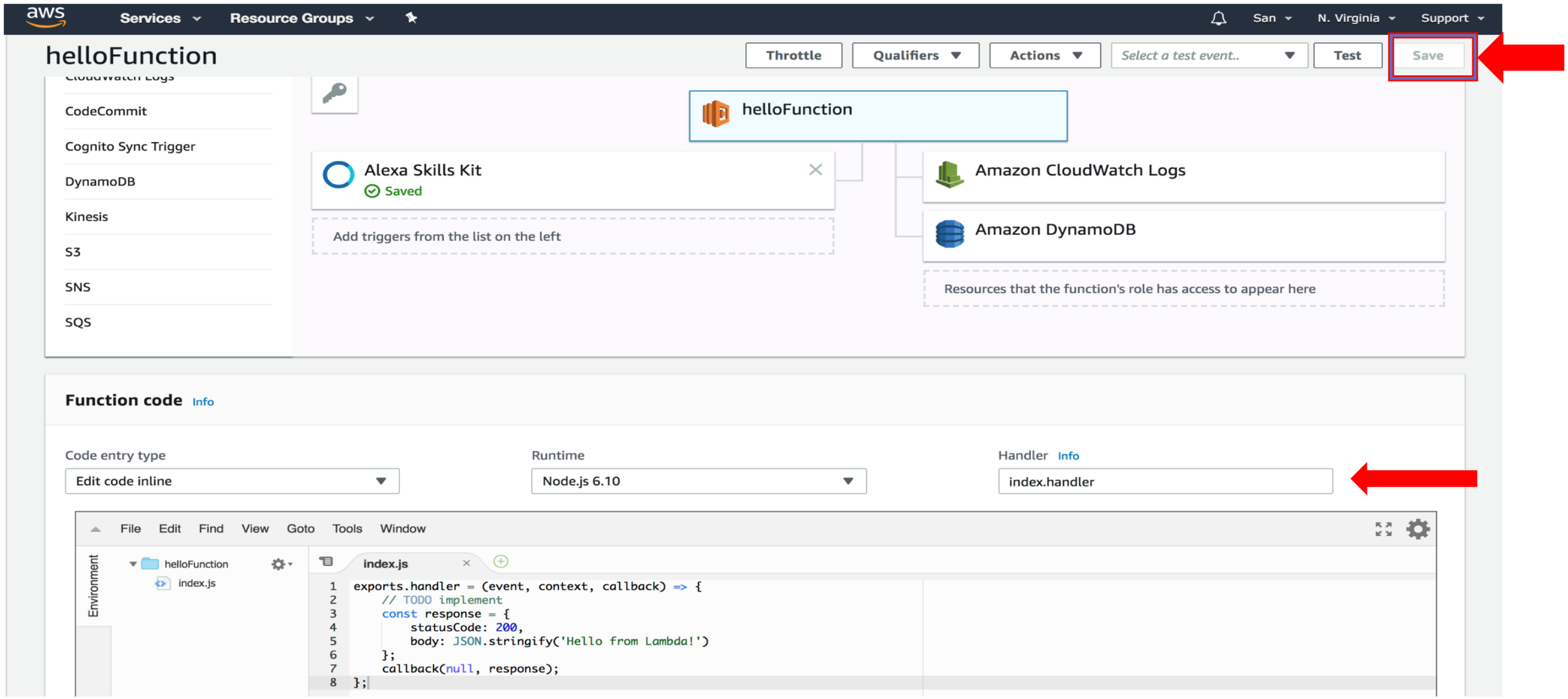
INTENT REQUEST

```
else if(request.type === "IntentRequest") {

        if(request.intent.name === "helloIntent") {
                let name = request.intent.slots.fname.value;
                let output = "Hello "+name+ ". Welcome to
                        Grace Hopper!";
               let response = getResponse({
                        output: output,
                        reprompt: false,
                        endSession: true
                        });
                context.succeed(response);
    }
    else {
                context.fail("Unknown intent name");
    }
```

STEP 21:

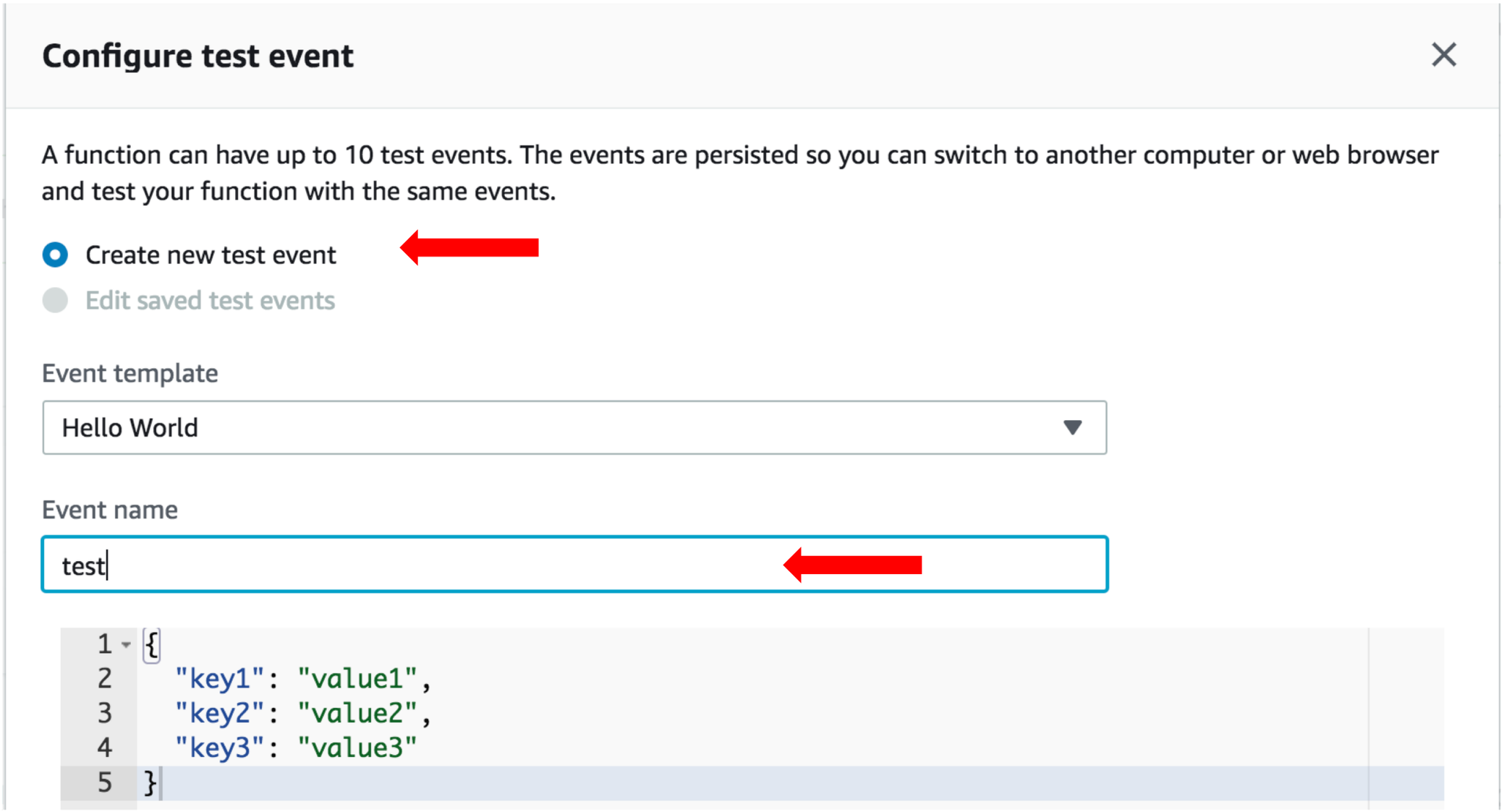
Once done with coding press the **"Save"** button on the top right corner.



STEP 22:

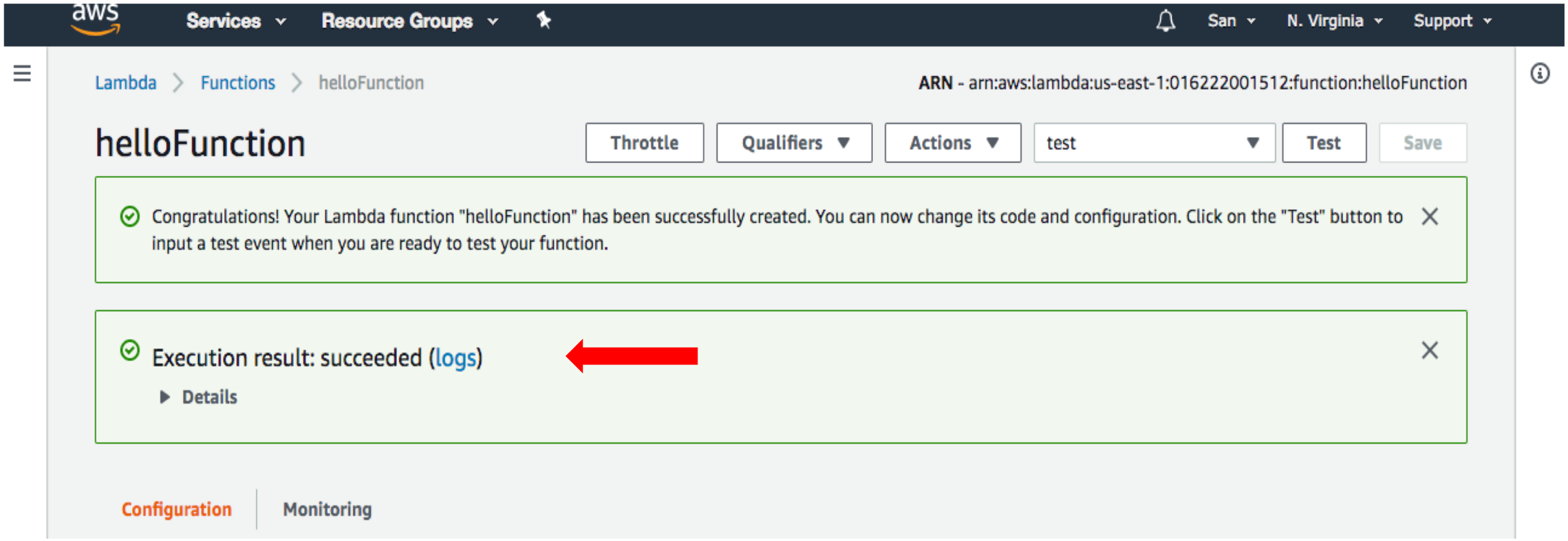
test/hello-alexa-test.json

Then click on the **"Test"** button that is present next to the "Save" button on the top right and provide the **"Event Name"** in the dialogue as ***test*** and provide the ***hello-alexa-test.json*** and click on the **"Create"** button.



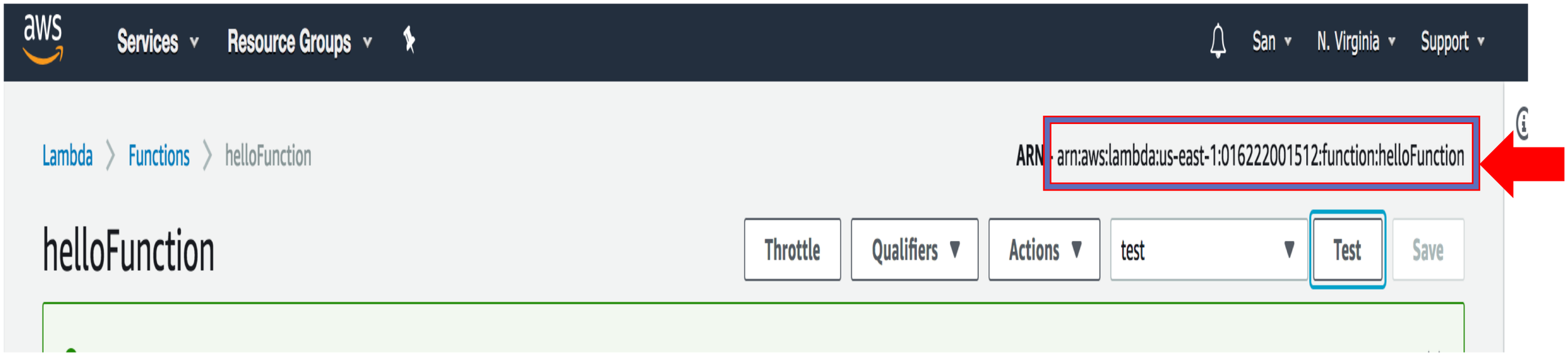
STEP 23:

Select the saved test event and click on **"Test"** button which will provide you with a sample response payload.



STEP 24:

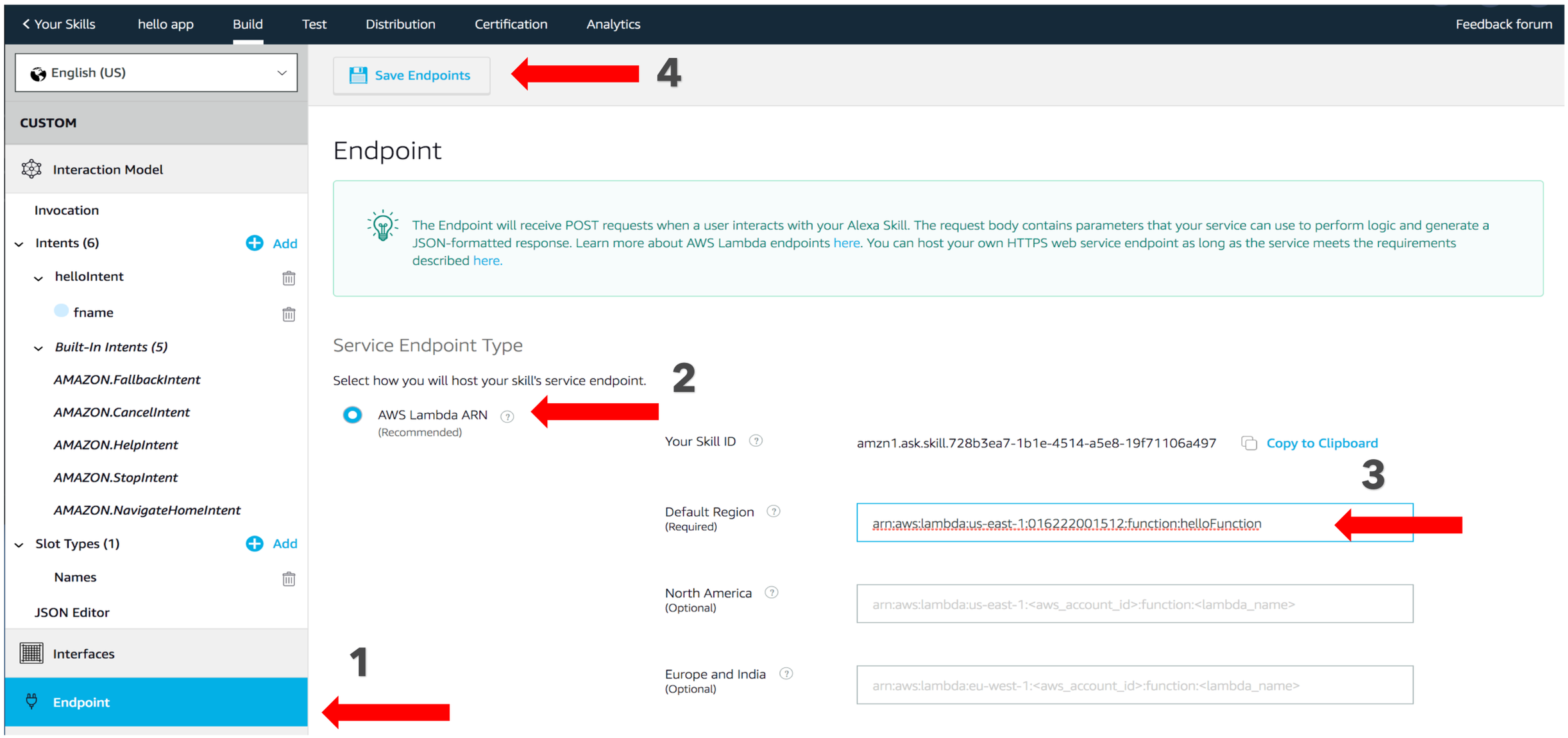
Copy the lambda **ARN** from the top right corner.



STEP 25:

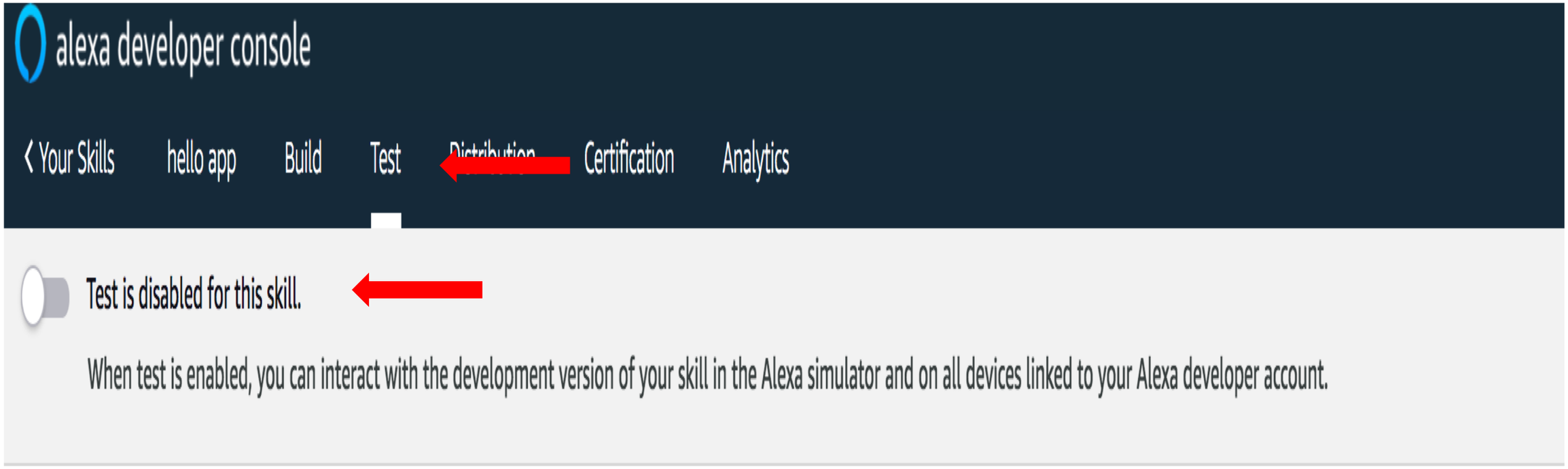
Go back to the Alexa developer console at https://developer.amazon.com/

Select the **"Endpoint"** on the Left Nav and select **"AWS Lambda ARN"** and paste the ARN that we copied in the previous step into the **"Default Region"**. Then click on **" Save Endpoints"**



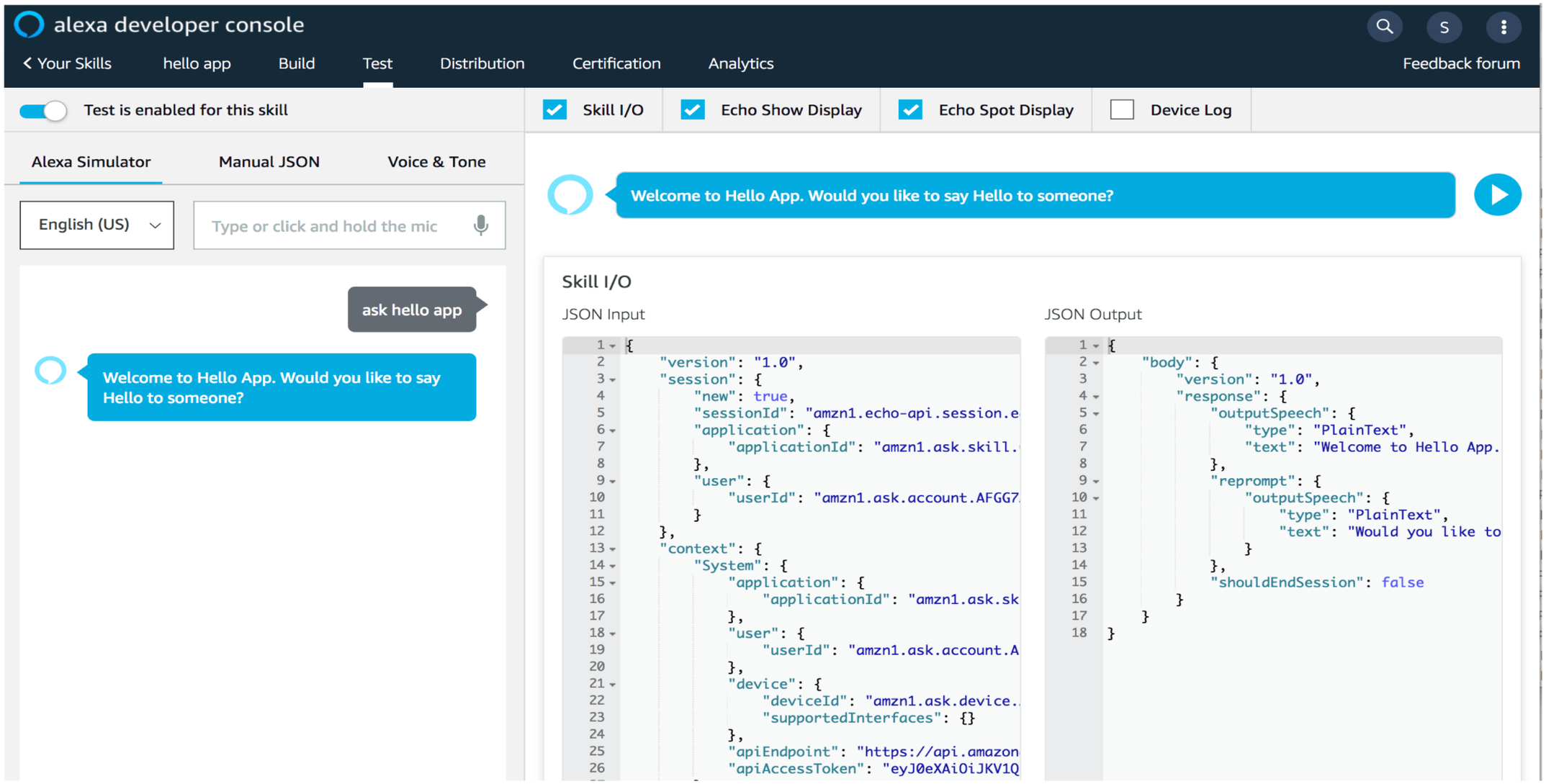
STEP 26:

Click on the **"Test"** tab on the top nav and **enable** the **Test.**



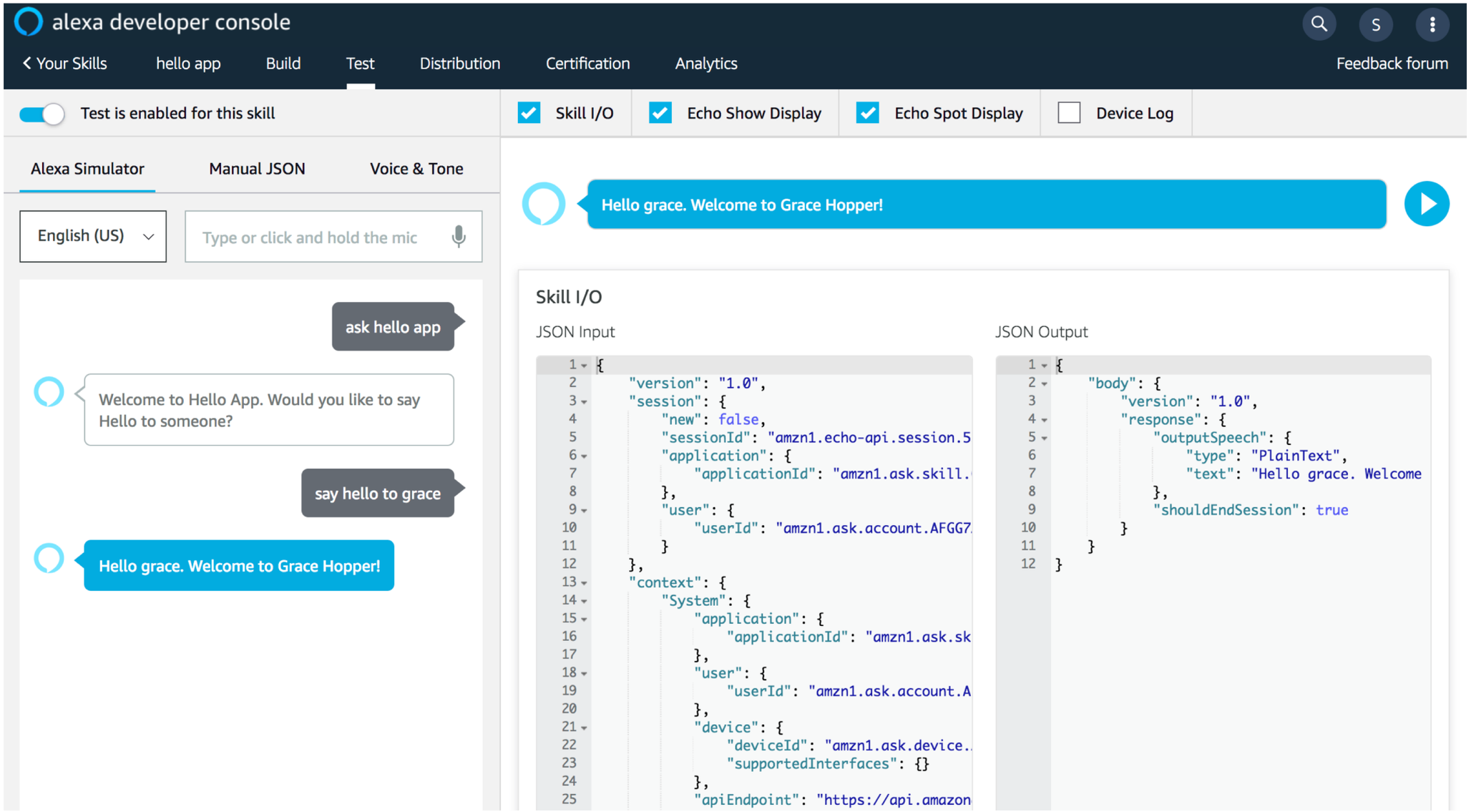
STEP 27: TEST LAUNCH REQUEST

Either you can ask Alexa or type in the test phrase **“ask hello app”** and should get the right response back from your Lambda.



STEP 28: TEST INTENT REQUEST

To test intent request, you can either ask Alexa or type in the test phrase **"ask hello app to say hello to Grace"** and should get the right response back from your Lambda.



http://bit.ly/GHC18_HelloAlexa

ALEXA CARD

#GHC 18

```
else if(request.type === "IntentRequest") {
        if(request.intent.name === "helloIntent") {
                let name = request.intent.slots.fname.value;
                let output = "Hello "+name+ ". Welcome to
                                        Grace Hopper!";
                let response = getResponse({
                        output: output,
                        reprompt: false,
                        cardTitle: name,
                        endSession: true
        });
        context.succeed(response);
}
```

```
if(opts.cardTitle) {
        let cardTitle = "Hello " + opts.cardTitle;
        response.response.card = {
                type: "Standard",
                title: cardTitle,
                text: "Welcome to Grace Hopper",
                image : {
                 smallImageUrl:
        "https://www.serendipitystamps.com/mm5/pics/s
                tamps/619hellosmall.gif",
        largeImageUrl:
        "https://www.serendipitystamps.com/mm5/pics/s
        tamps/619hellosmall.gif"
                }
        }
}
```

ALEXA CARD

#GHC 18

Echo Show Display

Echo Spot Display