

Alexa/SAP Demo

How-To

<https://mylittlepieceofsap.wordpress.com/2017/11/11/alexa-go-create-that-transfer-order/>

<https://blogs.sap.com/2018/08/11/testing-and-demonstrating-scp-odata-abap-and-amazon-alexa-integration/>

SAP Backend


OData Service: http://vhcalnplci.dummy.nodomain:8000/sap/opu/odata/sap/ZCC_GETPURCHASEORDERDATA_CDS/ZCC_GetPurchaseOrderData

http://104.199.30.221:8000/sap/opu/odata/sap/ZCC_GETPURCHASEORDERDATA_CDS/ZCC_GetPurchaseOrderData

Alexa Skill

<https://developer.amazon.com/alexa/console/ask>

1. Create the Alexa Skill

Skills						
Earnings						
Payments						
Alexa Skills						Create Skill
SKILL NAME	LANGUAGE	TYPE	MODIFIED	STATUS	ACTIONS	
 SAP View Skill ID	English (US)	Custom	2019-04-22	In Development	Analytics Edit Delete	

2. Invokation

Invocation

Users say a skill's invocation name to begin an interaction with a particular custom skill.

For example, if the invocation name is "daily horoscopes", users can say:

User: Alexa, ask daily horoscopes for the horoscope for Gemini

Skill Invocation Name ?

sap|

3. Intent

intentions that are nothing more than what the person has "intention" to consult Alexa for example an intention may be to know the sales and budget

Intents

+ Add Intent

Filter intents



NAME	UTTERANCES	SLOTS	TYPE	ACTIONS
DeliveryIntent	2	2	Custom	Edit Delete
AMAZON.FallbackIntent	-	-	Built-In	Edit Delete
AMAZON.CancelIntent	-	-	Required	Edit
AMAZON.HelpIntent	-	-	Required	Edit
AMAZON.StopIntent	-	-	Required	Edit
AMAZON.NavigateHomeIntent	-	-	Required	Edit

< 1 – 6 of 6 Intents >

Utterances → phrases that a user might say to invoke the intent

CUSTOM

Interaction Model

Invocation

Intents (6)

DeliveryIntent

Product

PurchaseOrder

Built-In Intents (5)

Slot Types (1)

Intents / DeliveryIntent

Sample Utterances (3)

When will be the next delivery for {Product}

What is the delivery date for {PurchaseOrder}

When do I receive Purchase Order {PurchaseOrder}

When do I receive Product {Product}

Intent Slots —> Intents can optionally have arguments called slots. Slot values are extracted from utterances and sent with the intent request.

Intent Slots (2)

ORDER	NAME	SLOT TYPE	ACTIONS
1	Product	AMAZON.NUMBER	Edit Dialog Delete
2	PurchaseOrder	AMAZON.NUMBER	Edit Dialog Delete
3	Create a new slot	+ Select a slot type	Edit Dialog Delete

Slot types —> Below I have the types of slots that is like a data type, where I also have the possibility to define some domains as is the case of the office slot, of the City type (I created several cities), here we can see that I can map names to codes which means that within my function node js deployed in lambda I will be able to interpret as code the city that I ask Alexa.

CUSTOM

Interaction Model

Invocation

Intents (6)

DeliveryIntent

Product

PurchaseOrder

Built-In Intents (5)

Slot Types (1)

Slot Types

+ Add Slot Type

Filter Slot Types

NAME	SLOT VALUES	TYPE	ACTIONS
AMAZON.NUMBER	-	Built-In	Delete

1 – 1 of 1 Slot Types

Finally we go to the option Endpoint where we can specify the id of our lambda function that we will see in the next section, there we must have loaded the handler code of our skill, Alexa will contact this function passing the information of the slots, and this function will connect to SAP, get the data in json format and proceed to send the result back to Alexa with what you should "say".

CUSTOM

Interaction Model

Invocation

Intents (6) [Add](#)

DeliveryIntent

Product

PurchaseOrder

Built-In Intents (5)

Slot Types (1) [Add](#)

AMAZON.NUMBER

JSON Editor

Interfaces

Endpoint

Endpoint

The Endpoint will receive POST requests when a user interacts with your Alexa Skill. The request body contains parameters that your service can use to perform logic and generate a JSON-formatted response. Learn more about AWS Lambda endpoints [here](#). You can host your own HTTPS web service endpoint as long as the service meets the requirements described [here](#).

Service Endpoint Type

Select how you will host your skill's service endpoint.

☒ AWS Lambda ARN (Recommended)

Your Skill ID ? amzn1.ask.skill.81aeef17-4fae-4896-8518-5fbc4816cb20 [Copy to Clipboard](#)

Default Region (Required) ? us-east-1:aws:lambda:us-east-1:646321298617:function:myGetPurchaseOrderSap

North America (Optional) ? arn:aws:lambda:us-east-1:<aws_account_id>:function:<lambda_name>

AWS

https://aws.amazon.com/free/?sc_icchannel=ha&sc_icampaign=signin_prospects&sc_isegment=en&sc_iplace=signin&sc_icontent=freetier&sc_segment=-1&awsf.Free%20Tier%20Types=categories%23alwaysfree

1. Create Lambda function

aws Services Resource Groups

Lambda > Functions > Create function > Using blueprint alexa-skills-kit-color-expert

Basic information [Info](#)

Function name
myGetPurchaseOrderSap

Execution role
Choose a role that defines the permissions of your function. To create a custom role, go to the [IAM console](#).
Create a new role with basic Lambda permissions

Role creation might take a few minutes. The new role will be scoped to the current function. To use it with other functions, you can modify it in the IAM console.

Lambda will create an execution role named myGetPurchaseOrderSap-role-y0ykg4c, with permission to upload logs to Amazon CloudWatch Logs.

// TODO: control mechanism of the Role and policy templates?

Alexa Skills Kit trigger [Remove](#)

Skill ID verification is an easy way to verify the Skill ID in an incoming request from a Skill. To set this up, enter the Skill ID (also called Application ID) of your skill located in your Alexa Skills Kit dashboard. [Learn more](#).

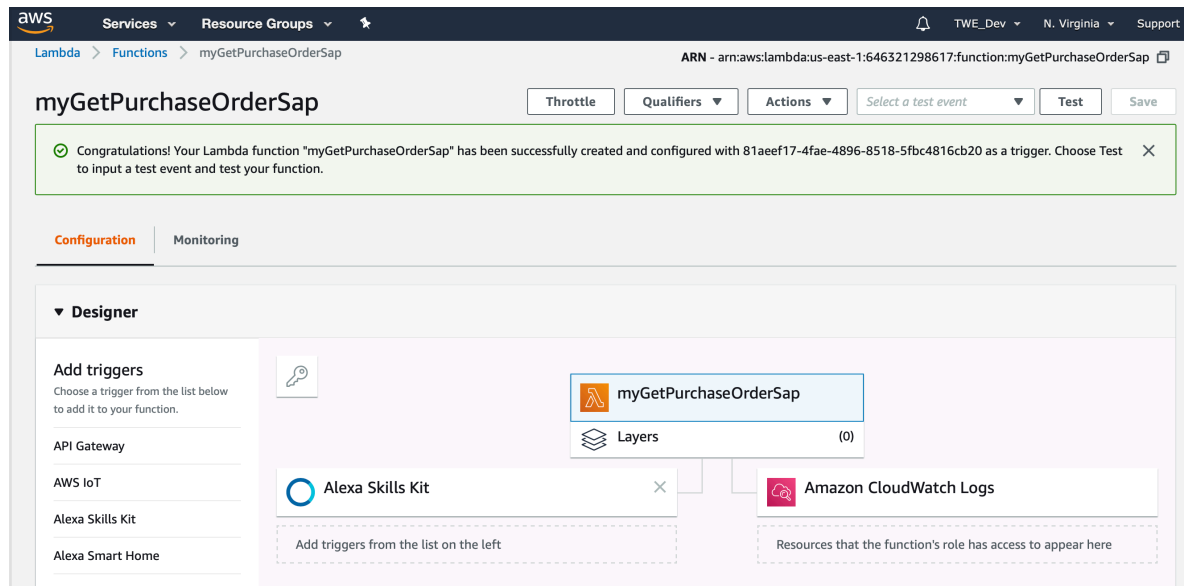
Skill ID verification
☒ Enable (recommended)
☐ Disable

Skill ID
amzn1.ask.skill.81aeef17-4fae-4896-8518-5fbc4816cb20

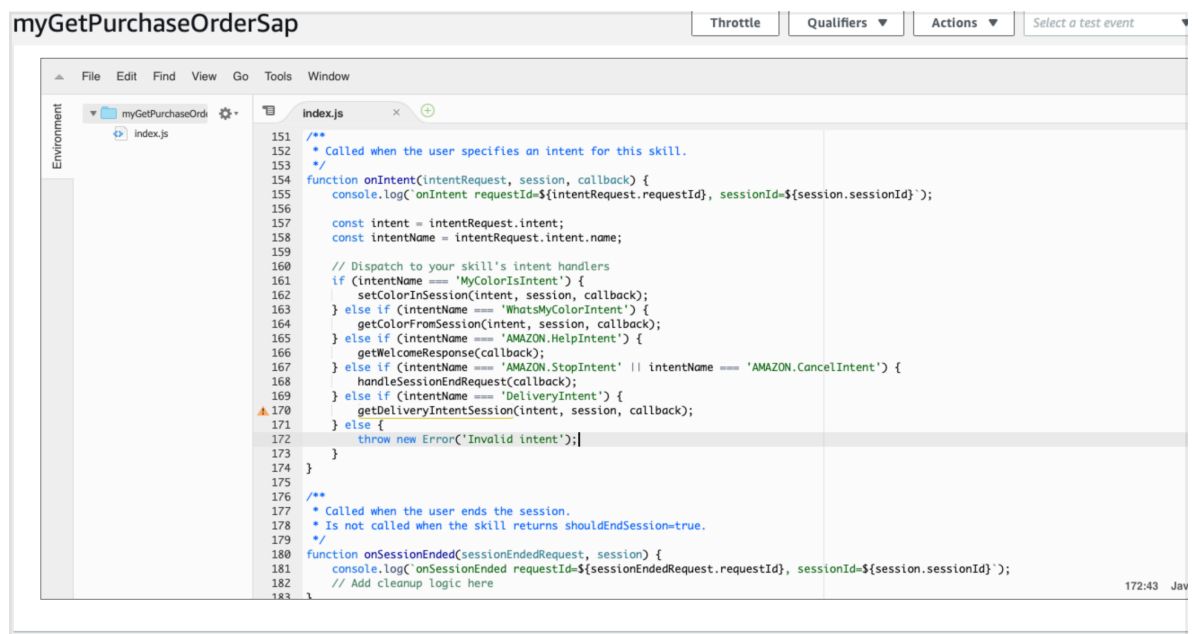
Lambda will add the necessary permissions for Amazon Alexa to invoke your Lambda function from this trigger. [Learn more](#) about the Lambda permissions model.

In the upper part of the next page appears the ARN which is the id of the function that we must place in the endpoint section of the configuration of the skill.

Here we configure the trigger of our function that would be a call from our voice service alexa, additionally you can see a connection between our function and Amazon CloudWatch Logs, in this portal we could see all the logs generated each time our function is executed, even those that we ourselves generate using the javascript console.log instruction.



To adjust the template to our Skill, we need to change the function `onIntent`, and add the call to a new function `getDeliveryIntentSession` when our Intent `DeliveryIntent` is called.



NPM Pakete laden

https://docs.aws.amazon.com/de_de/lambda/latest/dg/nodejs-create-deployment-pkg.html

Further details about AWS Lambda function

<https://developer.amazon.com/docs/custom-skills/host-a-custom-skill-as-an-aws-lambda-function.html>

