

# An Introduction To Alexa

"Alexa, turn on  
Welcome Home"

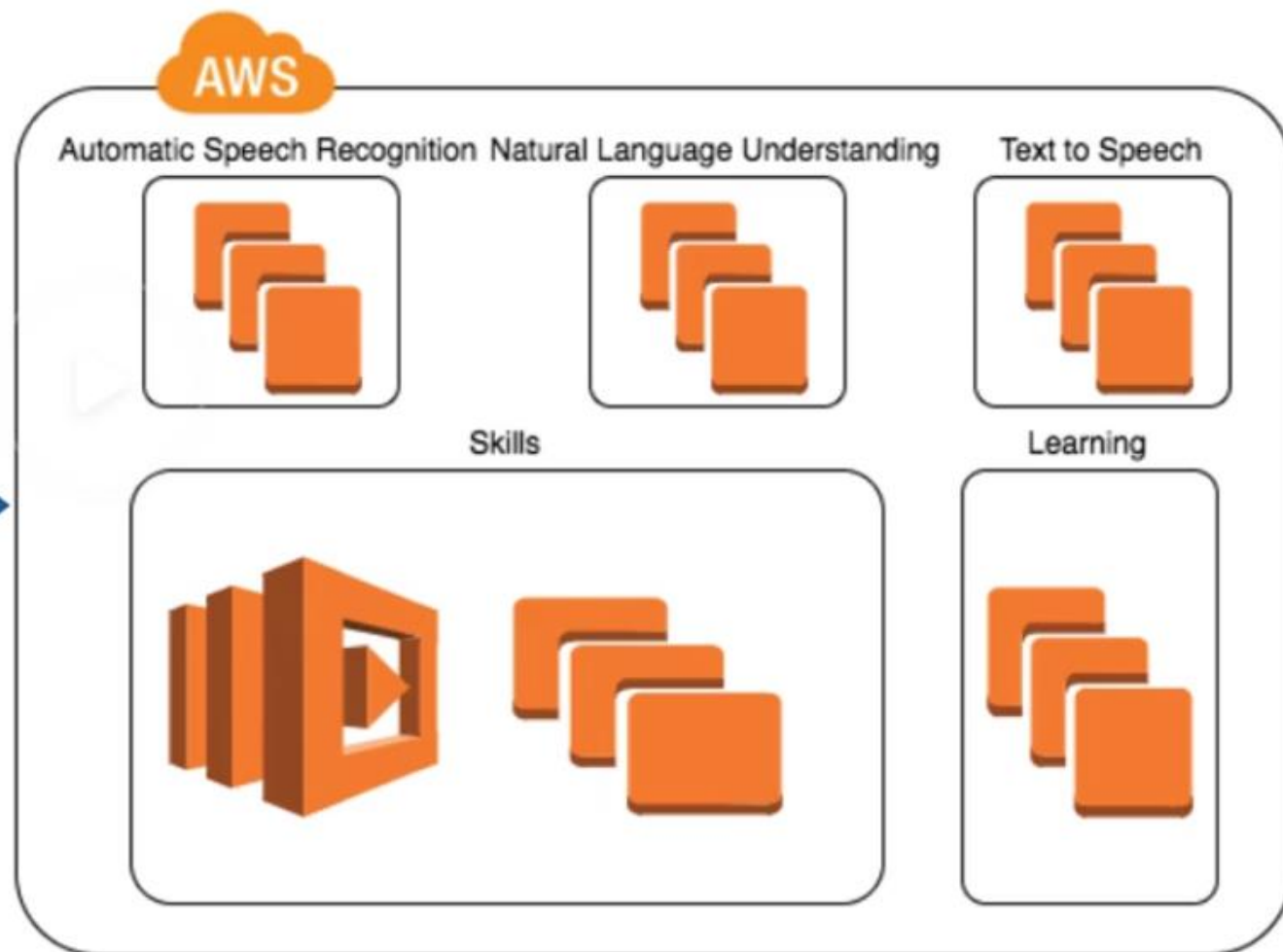
"Alexa, turn on my  
Chill Time"



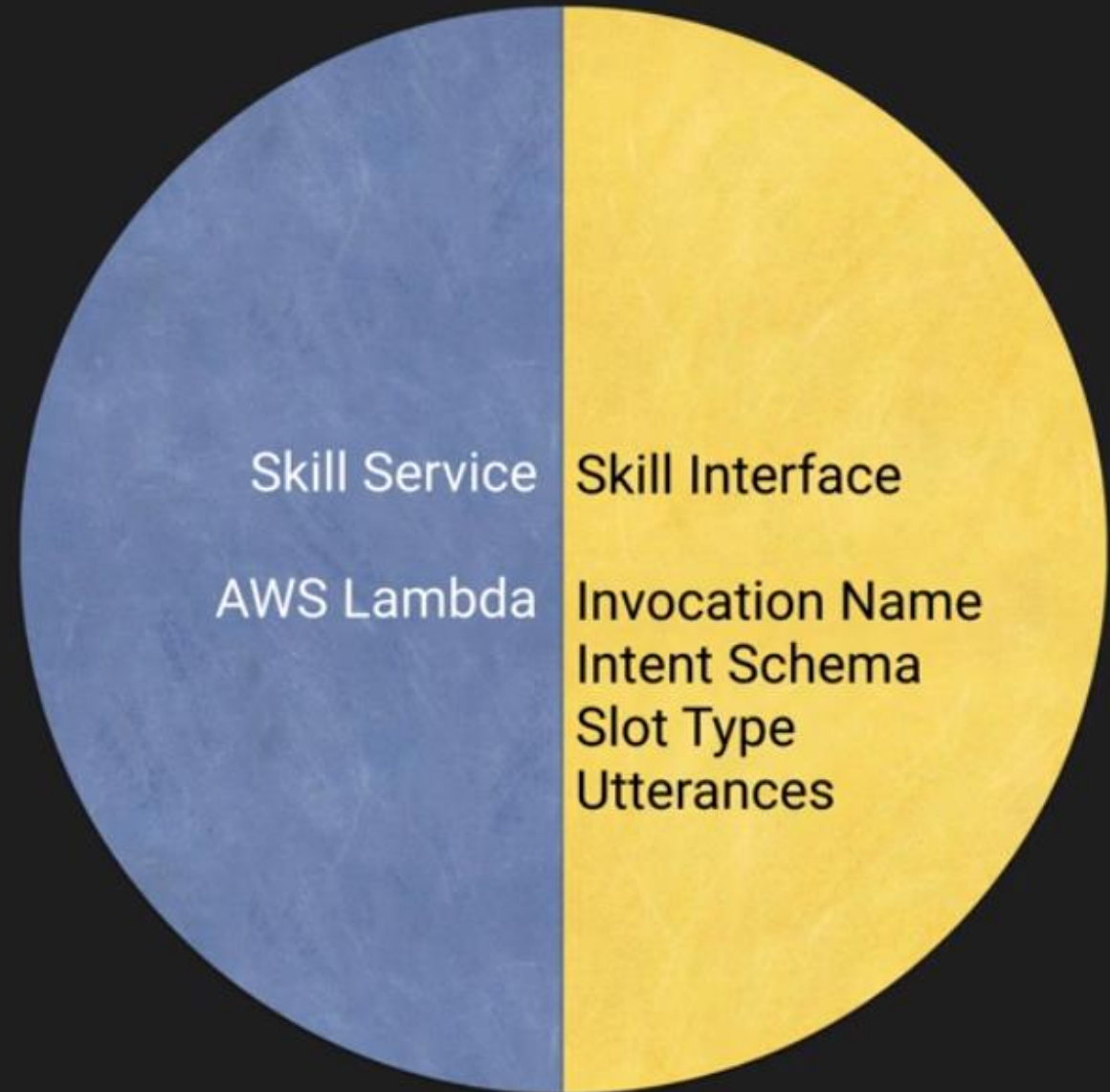
"Alexa, turn off my  
Bedroom Sonos"

"Alexa, turn on  
the TV"

# An Introduction To Alexa



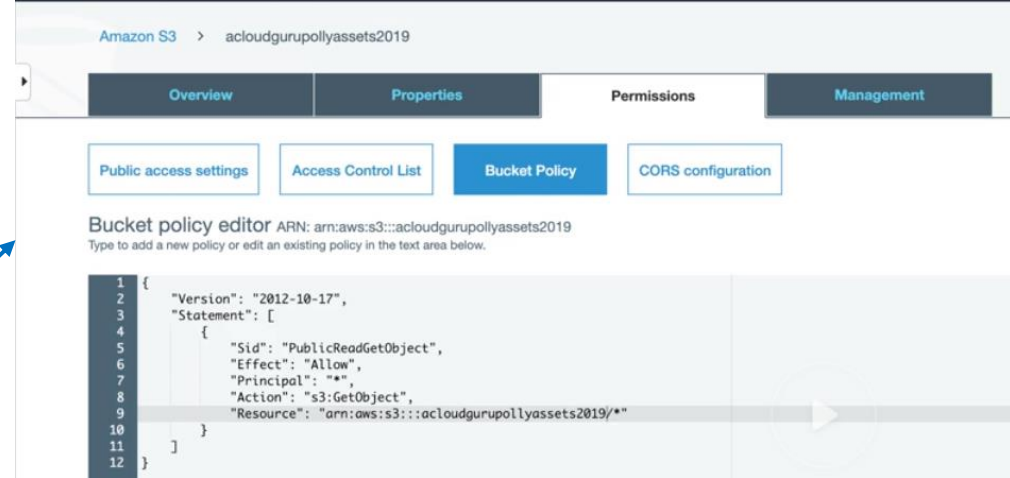
# An Introduction To Alexa



Create bucket with public access

Create bucket policy

Services → machine learning →  
Amazon polly



### Text-to-Speech

Listen, customize, and download speech. Integrate when you're ready.

Type or paste your text in the window, choose your language and region, choose a voice, choose Listen to speech, and then integrate it into your applications and services.

With up to 3000 characters you can listen, download, or save immediately. For up to 100,000 characters, your task must be saved to an S3 bucket.

Plain text SSML

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud. It is designed to make web-scale cloud computing easier for developers.

Amazon EC2's simple web service interface allows you to obtain and configure capacity with minimal friction. It provides you with complete control of your computing resources and lets you run on Amazon's proven computing environment. Amazon EC2 reduces the time required to obtain and boot new server instances to minutes,

853 characters used

Show default text Clear text

#### Language and Region

English, Australian

#### Voice

☐ Nicole, Female

☒ Russell, Male

Listen to speech

Download MP3

Change file format

Synthesize to S3

Change S3 task settings

### Change S3 synthesis task settings

Choose where to store the output data file.

S3 output bucket (required)

acloudgurupollyassets2019

S3 key prefix (optional)

e.g. myFolder/myFile

SNS topic for notifications (optional)

e.g. arn:aws:sns:us-east-1:123456789012:task-status-updates

Cancel

Synthesize

## S3 synthesis tasks status

You can synthesize long inputs directly to S3.

[Learn more](#)

Filter **All** 

< Viewing 1 to 2 tasks on page 1 >

Task ID	Status	Number of characters	Requested	S3 URL
8a11c855-59b8-4154-bb6d-297a98e7df46	Scheduled	852	02/13/2019	https://s3.us-east-1.amazonaws.com/acloudgurupollyassets2019/8a11c855-59b8-4154-bb6d-297a98e7df46.mp3
b672819b-3741-4254-8bf6-cddc382c77d5	Completed	852	02/13/2019	https://s3.us-east-1.amazonaws.com/acloudgurupollyassets2019/b672819b-3741-4254-8bf6-cddc382c77d5.mp3



Amazon S3 > acloudgurupollyassets2019

Overview

Properties


Permissions

Public

Management

Q Type a prefix and press Enter to search. Press ESC to clear.

 Upload

 Create folder

Download

Actions 


US East (N. Virginia) 

☐ Name 

Last modified 

Size 

Storage class 

☐  8a11c855-59b8-4154-bb6d-297a98e7df46.mp3

Feb 13, 2019 3:17:53 PM GMT+0000

289.2 KB

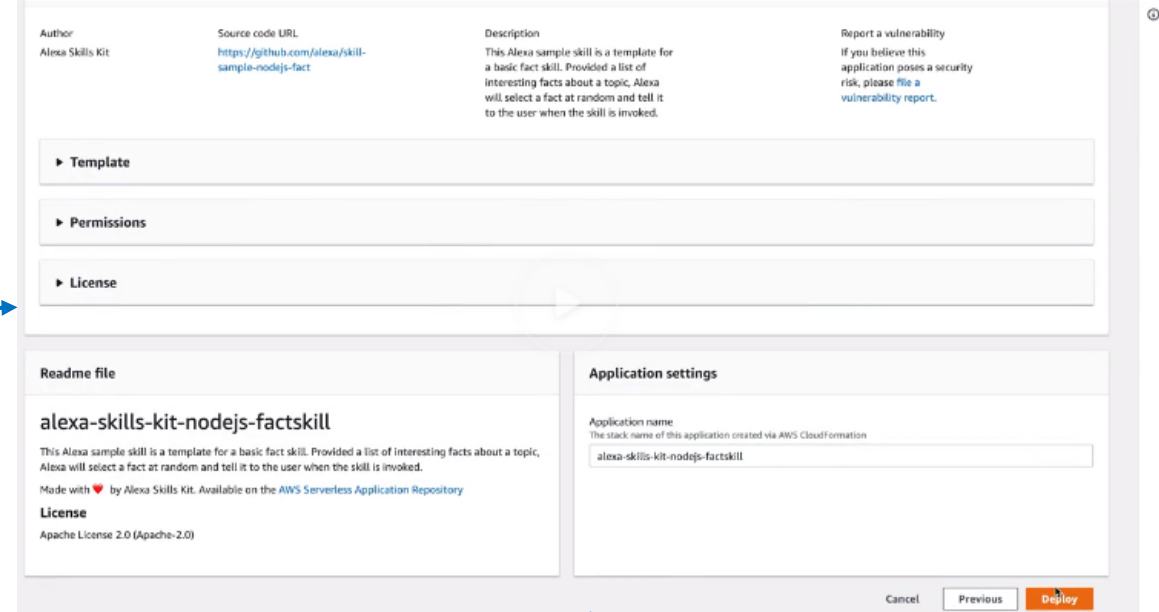
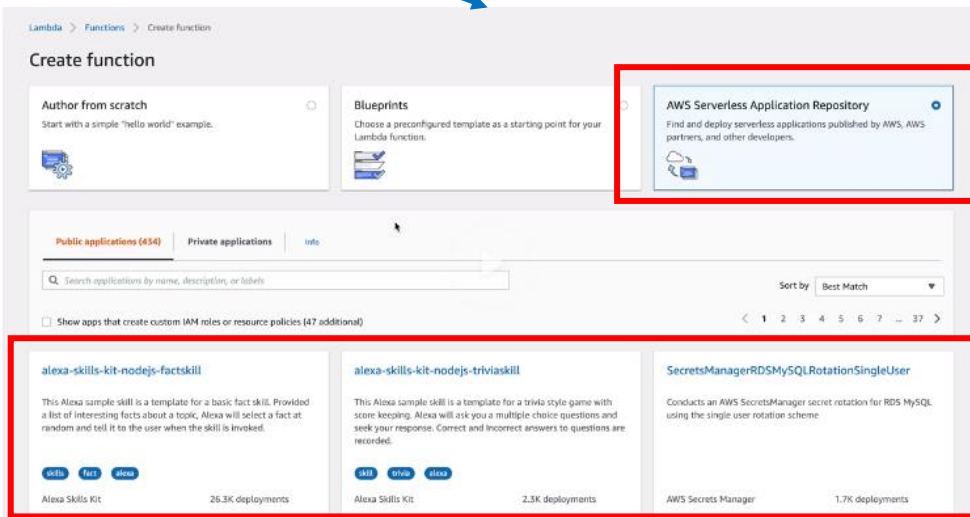
Standard

Viewing 1 to 1

Viewing 1 to 1



Create lambda function  
where alexa triggers are  
available



Deploy alexa skill to  
lambda

**AWS Lambda** X

Lambda > Functions

Functions (1)

Filter by tags and attributes or search by keyword

Function name	Description	Runtime	Code size	Last modified
serverlessrepo-alexa-skill-alexaskitskitnodejsfact-RM77JRYXM6SU	Demonstrate a basic fact skill built with the ASK NodeJS SDK	Node.js 8.10	145.1 kB	3 seconds ago

Lambda > Functions > serverlessrepo-alexa-skill-alexaskitskitnodejsfact-RM77JRYXM6SU

ARN - arn:aws:lambda:us-east-1:888791739481:function:serverlessrepo-alexa-skill-alexaskitskitnodejsfact-RM77JRYXM6SU

serverlessrepo-alexa-skill-alexaskitskitnodejsfact-RM7... Throttle Qualifiers Actions Select a test event... Test Save

This function belongs to the AWS CloudFormation stack **serverlessrepo-alexa-skills-kit-nodejs-factskill**. [Manage this stack on the CloudFormation console.](#)

Configuration Monitoring

▼ Designer

Add triggers

Choose a trigger from the list below to add it to your function.

API Gateway

AWS IoT

Alexa Skills Kit

Alexa Smart Home

Application Load Balancer

CloudFront

Go back to application serverlessrepo-alexa-skills-kit-nodejs-factskill

serverlessrepo-alexa-skill-alexaskitskitnodejsfact-RM77JRYXM6SU

Layers (0)

Alexa Skills Kit

Amazon CloudWatch Logs

Add triggers from the list on the left

Resources that the function's role has access to appear here

serverlessrepo-alexa-skill-alexaskitskitnodejsfact-RM7... Throttle Qualifiers Actions Select a test event... Test Save

Code entry type

Edit code inline

Runtime

Node.js 8.10

Handler info

index.handler

```
1  // Import the skill builder module
2  const skillBuilder = require('alexa-skill-builder');
3
4  // Import the skill module
5  const skillModule = require('./skill');
6
7  // Create a new skill builder instance
8  const skillBuilder = new skillBuilder.Builder();
9
10 // Add the skill module to the skill builder
11 skillBuilder.addSkillModule(skillModule);
12
13 // Export the skill builder instance
14 exports.handler = skillBuilder;
```

Lambda > Functions > serverlessrepo-alexa-skill-alexaskitskitnodejsfact-RM77JRYXM6SU

ARN - arn:aws:lambda:us-east-1:888791739481:function:serverlessrepo-alexa-skill-alexaskitskitnodejsfact-RM77JRYXM6SU Copied

serverlessrepo-alexa-skill-alexaskitskitnodejsfact-RM7... Throttle Qualifiers Actions Select a test event... Test Save

Configuration Monitoring

Alexa developer  
account

Amazon alexa

View alexa consoles

skills

Create skill

Create a new skill

Skill name  
MyStudyBuddy  
12/50 characters

Default language  
English (US)

Choose a model to add to your skill

There are many ways to start building a skill. You can design your own custom model or start with a pre-built model. Pre-built models are interaction models that contain a package of intents and utterances that you can add to your skill.

Custom  
Design a unique experience for your users. A custom model enables you to create all of your skill's interactions.

Flash Briefing  
Give users control of their news feed. This pre-built model lets users control what updates they listen to.

Smart Home  
Give users control of their smart home devices. This pre-built model lets users turn off the lights and other devices without getting up.

Video  
Let users find and consume video content. This pre-built model supports content searches and content suggestions.

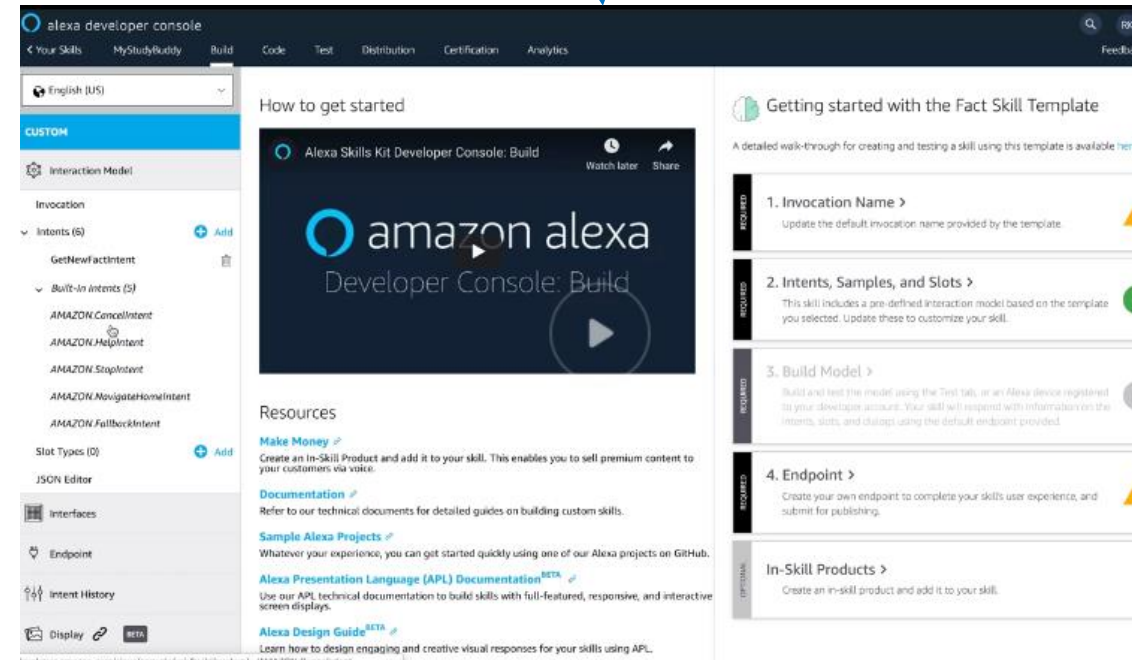
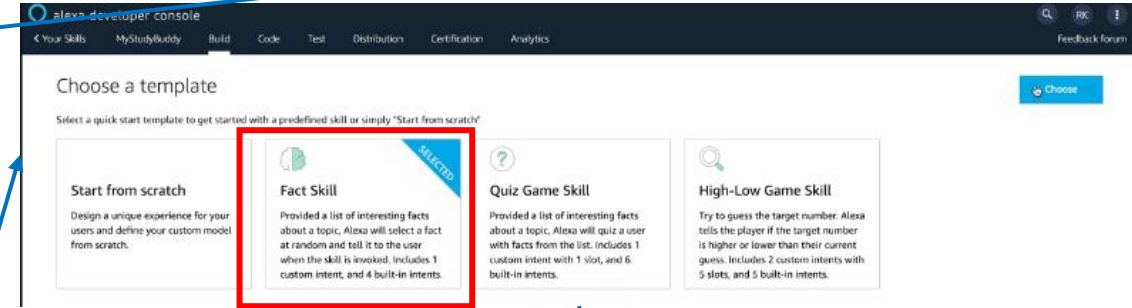
Baby Activity  
Let users log and retrieve events for their infants. This pre-built model supports diaper changes, feedings, sleep, and weight.

Choose a method to host your skill's backend resources

You can self host your backend resources or you can have Alexa host it for you. If you decide to have Alexa host your skill, you'll get access to our code editor, which will allow you to deploy code directly to AWS Lambda from the developer console.

Self Hosted

Alexa-Hosted (Beta)





alex developer console

English (US)

Save Model Build Model Utterance Profiler

**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:

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

Skill Invocation Name ⓘ

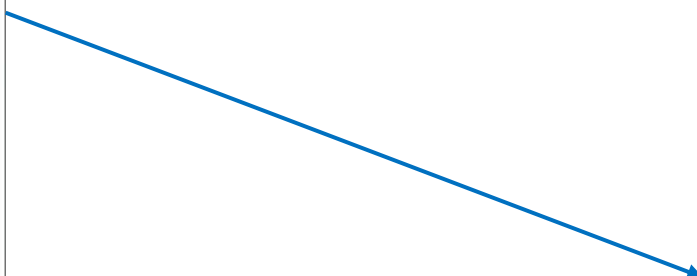
cloud facts

**Invocation name requirements**

Your invocation name should be two or more words, and can contain only lower-case alphabetic characters, spaces between words, possessive apostrophes (for example, "sam's science trivia"), or periods used in abbreviations (for example, "a. b. c."). Other characters like numbers must be spelled out. For example, "twenty one".

Invocation names cannot contain any of the Alexa skill launch phrases such as "launch", "ask", "tell", "load", "begin", and "trouble". Wake words including "Alexa", "Amazon", "Echo", "Computer", or the words "skill" or "app" are not allowed. Learn more about invocation names for custom skills.

Changes to your skill's invocation name will not take effect until you have built your skill's interaction model. In order to successfully build, your skill's interaction model must contain an intent with at least one sample utterance. Learn more about creating interaction models for custom skills.



Lambda function ARN

alex developer console

English (US)

Save Endpoints

**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.41b6ea73-0466-432a-a52c-39a85e653051 Copy to Clipboard

Default Region ⓘ (Required)

amznawslambdaus-east-1:888791739481:function:serverlessrepo-alexa-skill-alexa-skill

North America ⓘ (Optional)

amznawslambdaus-east-1:aws\_account\_id:function:lambda\_name

Europe and India ⓘ (Optional)

amznawslambdaeu-west-1:aws\_account\_id:function:lambda\_name

Far East ⓘ

alexa developer console

< Your Skills MyStudyBuddy Build Code Test Distribution Certification Analytics Feedback Forum

English (US) Save Model Build Model Utterance Profiler

CUSTOM

Interaction Model

Invocation

Intents (6) Add

GetNewFactIntent

Built-in Intents (5)

AMAZON.CancelIntent

AMAZON.HelpIntent

AMAZON.StopIntent

AMAZON.NavigateHomeIntent

AMAZON.FallbackIntent

Slot Types (0) Add

JSON Editor

Interfaces

Endpoint

Intent History

Display

Intents / GetNewFactIntent

Sample Utterances (15)

What might a user say to invoke this intent?

a cloud fact

a fact

a space fact

tell me a fact

tell me a space fact

Dialog Delegation Strategy

Dialog management is not enabled for this intent. Why is this disabled?

Intent Slots (0)

ORDER NAME SLOT TYPE

Interaction Model Saved Successfully

The interaction model has been saved without errors. The Model must be successfully built for changes to take effect.

Wednesday, February 13, 2019, 3:25 PM

Chrome File Edit View History Bookmarks People Window Help

MyStudyBuddy Build Code Test Distribution Certification Analytics Feedback Forum

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

Here's your fact: Jupiter has the shortest day of all the planets.

open cloud fact

Here's your fact: Jupiter has the shortest day of all the planets.

Skill I/O

JSON Input

```
1- {
2-   "version": "1.0",
3-   "session": {
4-     "new": true,
5-     "sessionId": "amzn1.echo-api.session.e3b04efe-1123-4556-b657-
6-     "application": {
7-       "applicationId": "amzn1.ask.skill.41b6ea73-0466-432a-e5
8-     },
9-     "user": {
10-      "userId": "amzn1.ask.account.AFJQW555N0XB0F4X0XYTYDUJYV
11-    }
12-  },
13-  "context": {
14-    "System": {
15-      "application": {
16-        "applicationId": "amzn1.ask.skill.41b6ea73-0466-432
17-      },
18-      "user": {
19-        "userId": "amzn1.ask.account.AFJQW555N0XB0F4X0XYTYD
20-      },
21-      "device": {
22-        "deviceId": "amzn1.ask.device.AFG25UKDPNIRQJ01TP13R
23-        "supportedInterfaces": {}
24-      },
25-      "apiEndpoint": "https://api.eu.amazonalexa.com",
26-      "apiAccessToken": "eyJ3b250aX01KV1Q1LLC2h6Sc10L1JSUzI1N1Is
27-    },
28-    "viewport": {
29-      "experiences": [
30-        {
31-          "arOnInvokeWidth": 246,
```

JSON Output

```
1- {
2-   "session": {
3-     "new": true,
4-     "sessionId": "amzn1.echo-api.session.e3b04efe-1123-4556-b657-
5-     "application": {
6-       "applicationId": "amzn1.ask.skill.41b6ea73-0466-432a-e5
7-     },
8-     "user": {
9-       "userId": "amzn1.ask.account.AFJQW555N0XB0F4X0XYTYDUJYV
10-     },
11-     "device": {
12-       "deviceId": "amzn1.ask.device.AFG25UKDPNIRQJ01TP13R
13-       "supportedInterfaces": {}
14-     },
15-     "apiEndpoint": "https://api.eu.amazonalexa.com",
16-     "apiAccessToken": "eyJ3b250aX01KV1Q1LLC2h6Sc10L1JSUzI1N1Is
17-   },
18-   "viewport": {
19-     "experiences": [
20-       {
21-         "arOnInvokeWidth": 246,
```

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Overview

Properties

Permissions

Management

Q Type a prefix and press Enter to search. Press ESC to clear.

Upload Create folder Download Actions

Name

Last modified

8a11c855-59b8-4154-bb6d-297a98e7df46.mp3

Feb 13, 2019 3:17:53 PM GMT+0000

8a11c855-59b8-4154-bb6d-297... X

Download Copy path Select from

Latest version

Overview

Key	8a11c855-59b8-4154-bb6d-297a98e7df46.mp3
Size	289.2 KB
Expiration date	N/A
Expiration rule	N/A
ETag	dc1b373f0b64c064c2a25f61a32a0da30

Last modified	Feb 13, 2019 3:17:53 PM GMT+0000
Object URL	<a href="https://s3.amazonaws.com/acloudgurupollyassets2019/8a11c855-59b8-4154-bb6d-297a98e7df46.mp3">https://s3.amazonaws.com/acloudgurupollyassets2019/8a11c855-59b8-4154-bb6d-297a98e7df46.mp3</a>

Properties

Storage class	Standard
Encryption	None
Metadata	1
Tags	0 Tags
Object lock	Disabled

serverlessrepo-alexa-skill-alexaskitskitnodejsfact-RM7...

Throttle

Qualifiers

Actions

Select a test event...

Test

Save

Code entry type

Edit code inline

Runtime

Node.js 8.10

Handler info

index.handler

File Edit Find View Goto Tools Window

serverlessrepo-alexa-skill-ale

node\_modules

index.js

package.json

index.js

```
82 const HELP_MESSAGE = 'You can say tell me a space fact, or, you can say exit... What can I help you with?';
83 const HELP_PROMPT = 'What can I help you with?';
84 const STOP_MESSAGE = 'Goodbye!';
85
86 const data = [
87   'audio src = \"https://s3.amazonaws.com/acloudgurupollyassets2019/8a11c855-59b8-4154-bb6d-297a98e7df46.mp3\" />',
88 ];
89
90 const skillBuilder = Alexa.SkillBuilders.standard();
91
92 exports.handler = skillBuilder
93   .addRequestHandlers(
94     GetNewFactHandler,
95     HelpHandler,
96     ExitHandler,
97     SessionEndedRequestHandler
98   )
99   .addErrorHandlers(ErrorHandler)
100   .lambda();
101
```