

# TAPAD



Luca  
Kewei  
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# We're Hiring!

**WE'VE GOT A SWEET  
STACK**



# Senior Software Engineer

LEAD/ARCHITECT/DESIGN/DEVELOP



Google  
BigQuery



Google  
Dataflow



Google  
Dataproc



# Software Engineer

LEAD/GROW/DESIGN/DEVELOP



Google  
BigQuery



Google  
Dataflow



Google  
Dataproc



# Site Reliability Engineer

ARCHITECT/DESIGN/CI/CD/MAINTAIN



Google  
BigQuery



Google  
Dataproc



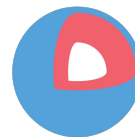
Google  
Dataflow



kubernetes



docker



CoreOS



Google Cloud Platform

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# Inventors of the Device Graph



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# Need More Reasons to Join?

Nice and competent  
colleagues (you have  
a selection here!)

Startup  
environment +  
Telenor  
benefits

Training in  
New York City

Centrally  
located

All the coffee that  
you can drink, all  
the ping pong  
that you can play





BUILDING A

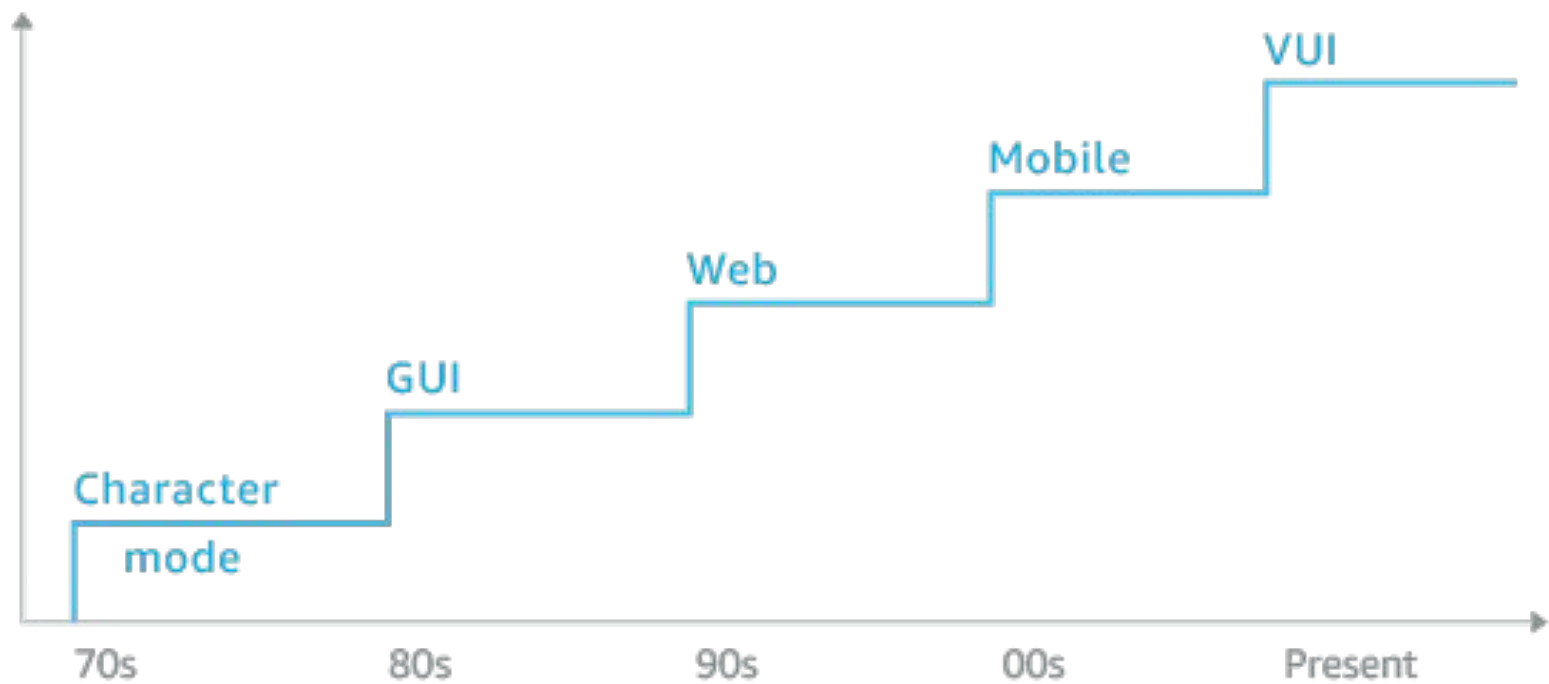
SEARCH



ALEXA

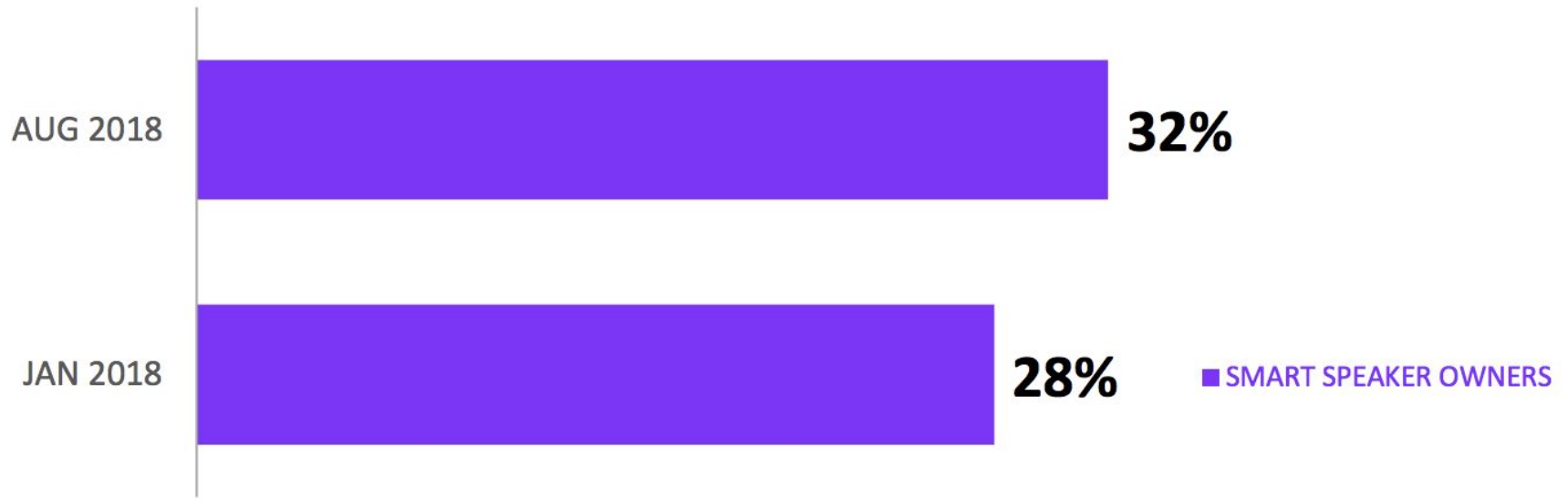


SKILL



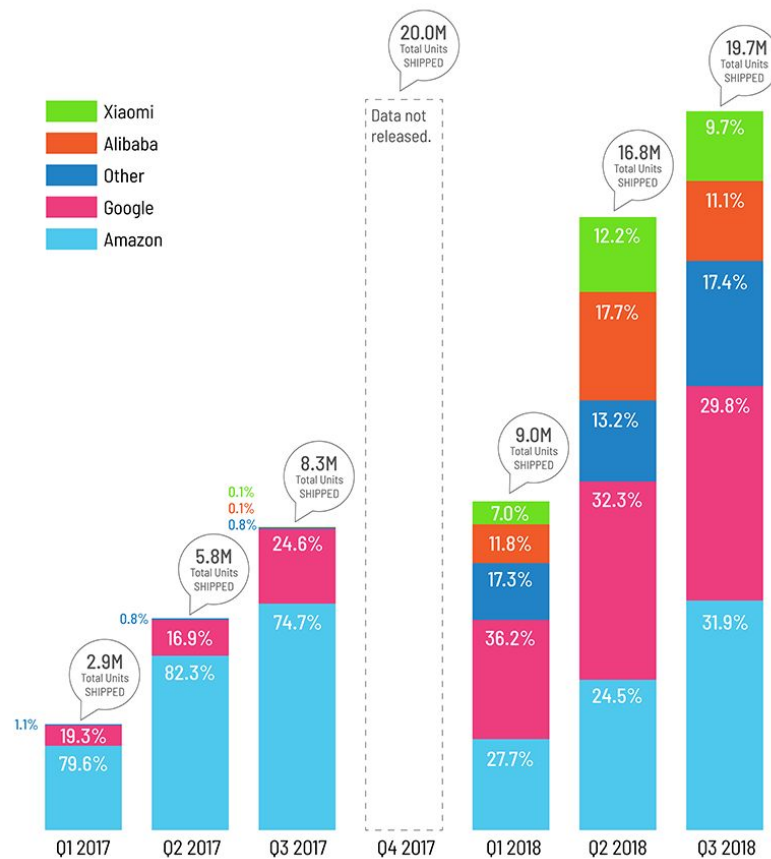
Source: [Amazon's Developer Portal](#)

Does any of you have a  
voice assistant?



PERCENTAGE OF CONSUMERS WHO OWN A SMART SPEAKER (US, AUG 2018)  
SOURCE: SURVEY

# Global Smart Speaker Sales Share - 2017 - Q3 2018

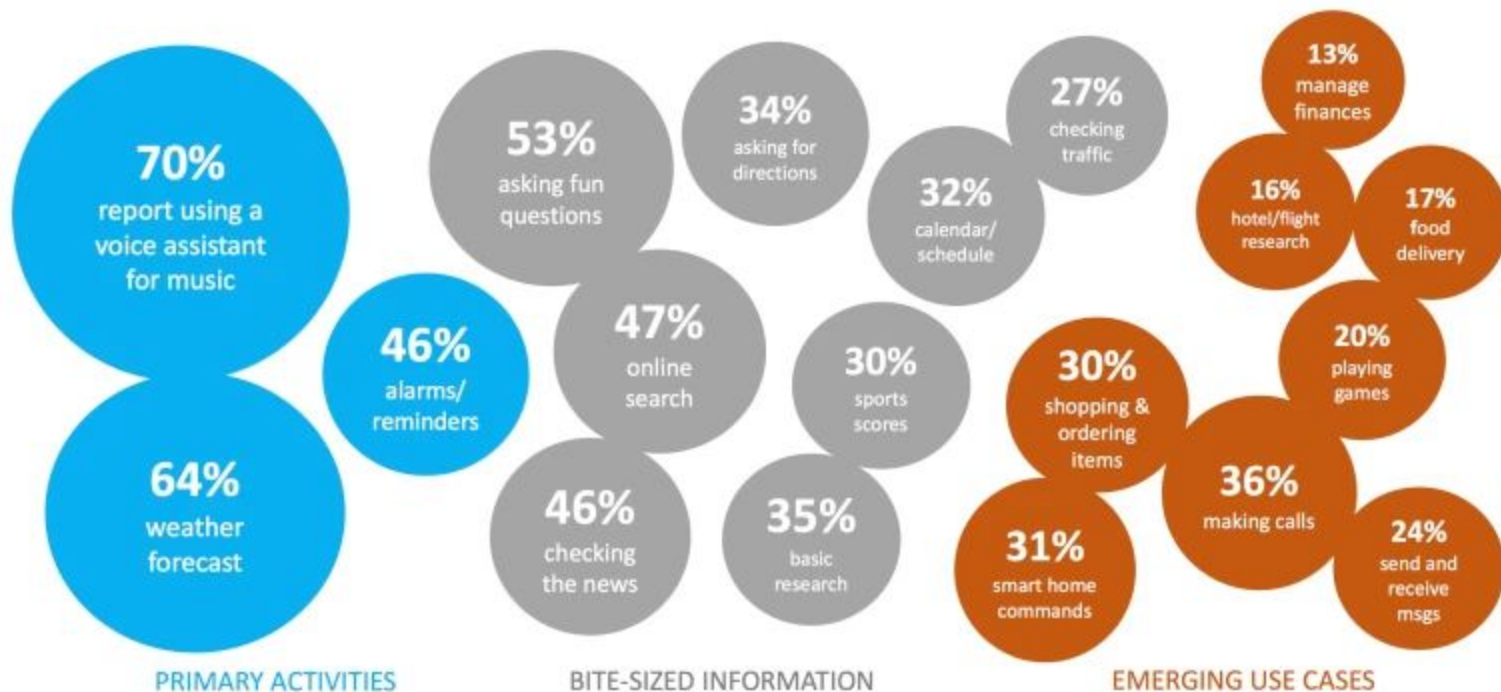


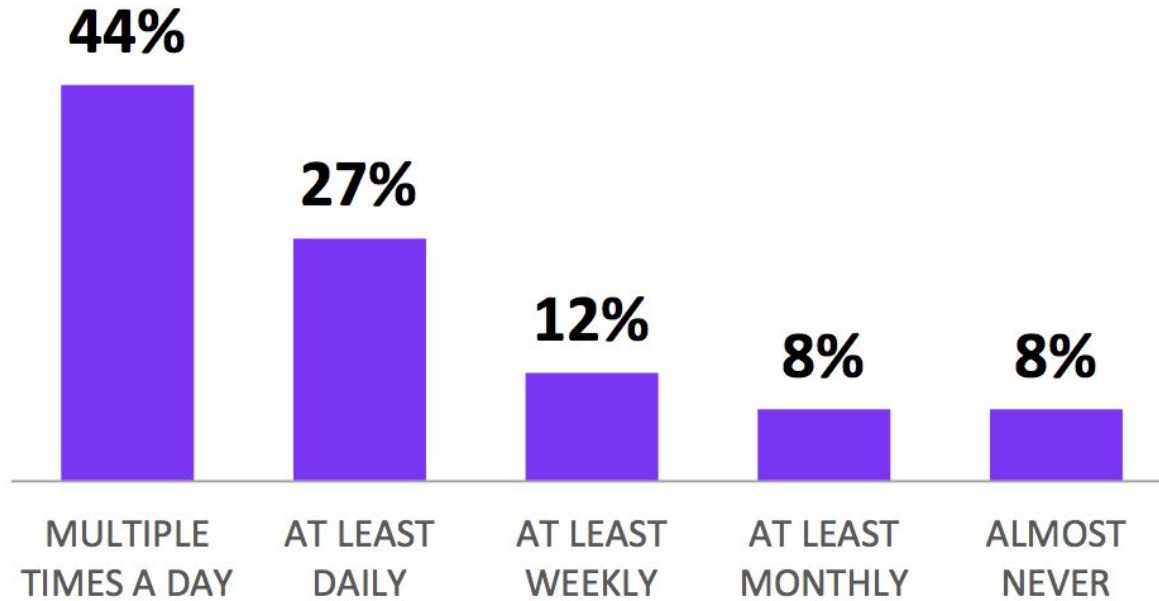
Source: Canalys



Source: [voicebot.ai](https://voicebot.ai)

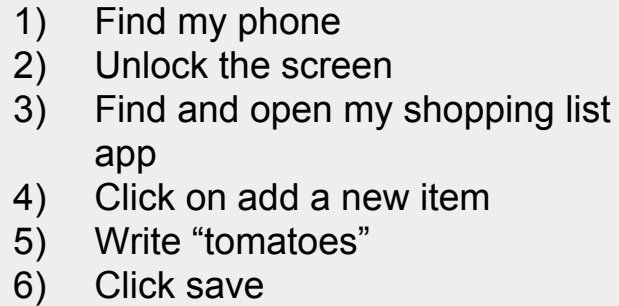
## Voice activities expanding beyond music & weather






FREQUENCY OF VOICE ASSISTANT USE (US, AUG 2018)

SOURCE: SURVEY

- 
- 1) Find my phone
  - 2) Unlock the screen
  - 3) Find and open my shopping list app
  - 4) Click on add a new item
  - 5) Write "tomatoes"
  - 6) Click save

- 
- 1) "Alexa add tomatoes to my shopping list."



Are you ready?

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

# Alexa Skills Kit

Give Your Vision a Voice and Reach More Customers

Alexa Skills Kit

Learn

Design

Build

Launch

Start a Skill

## Why Build Alexa Skills?

## Welcome to the Alexa Skills Kit Developer Console

Visit our [release notes](#) to learn about new feature and tools. Curious about what's new? [watch this video](#) or [read our documentation](#).

**Skills**

Earnings

Payments

# Alexa Skills



Create Skill

Enter skill name

Skill name must have at least 2 characters.

0/50 characters

Default language

English (US)

More languages can be added to your skill after creation

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.

*"Alexa, what's in the news?"*

Flash Briefing

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

*"Alexa, what's in the news?"*

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.

*"Alexa, turn on the kitchen lights"*

Music

Give users complete control of their music. This pre-built model lets users search, pause, skip, or shuffle in your skill.

*"Alexa, play music by Lady Gaga"*

Video

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

*"Alexa, play Interstellar"*

Baby Activity

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

*"Alexa, record a dirty diaper"*

Meetings

This pre-built model leverages Alexa for Business APIs to allow users to search for and book available meeting rooms in their office.

*"Alexa, book a room"*

Choose a method to host your skill's backend resources

You can provision your own backend resources or you can have Alexa host them 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.

Provision your own

Provision your own endpoint and backend resources for a skill. With this option, you will not gain access to the console's code editor.

Alexa-Hosted (Beta)

Alexa will host skills in your account up to the AWS Free Tier limits. You will gain access to an AWS Lambda endpoint, 5 GB of media storage with 15 GB of monthly data transfer, and a table for session persistence. [Learn more](#)

Natural Language  
Processing

Automate Skill  
Recognition

Alexa Learning

Any device that can  
connect to Alexa  
Service



Amazon Developer Portal  
Voice Interaction Model



What you say back to the user

**Serveless means:**

No servers to provision or  
manage

Pay for value

Great agility

Less overhead

Better focus

Increase scale

More Flexibility

Faster time to market.

**Lambda Handles:**

Load Balancing

Auto Scaling

Handling Failures

Security Isolation

OS Management

Managing Utilization

Invocation

✓ Intents (5)

 Add

HelloWorldIntent



✓ *Built-In Intents (4)*

*AMAZON.CancelIntent*

*AMAZON.HelpIntent*

*AMAZON.StopIntent*

*AMAZON.NavigateHomeIntent*

Slot Types (0)

 Add

JSON Editor

This is your Voice User Interface.



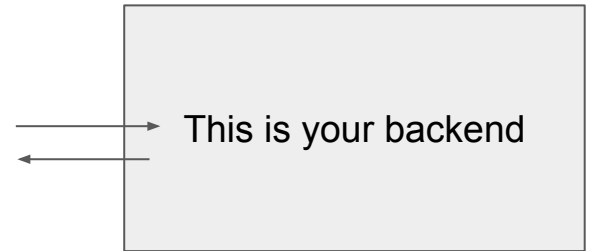
Navigation bar: < Your Skills   AskAlexey   Build   **Code**

File explorer:


- ▼ Skill Code
  - ▼ lambda
    - index.js**
    - package.json
    - util.js


Code editor (index.js):

```
1 // This sample
2 // Please visi
3 // session per
4 const Alexa =
5
6 const LaunchRe
7   canHandle(
8     return
9 }
```



Don't forget to SAVE and BUILD both  
“frontend” and “backend”!

 Save Model

 Build Model

## 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 

women in tech

< Your Skills AskAlexey Build Code **Test**

Skill testing is enabled in: Development

Alexa Simulator Manual JSON Voice & Tone

English (US) Type or click and hold the mic

# Add Intent

An intent represents an action that fulfills a user's spoken request. [Learn more](#) about intents.

☒ Create custom intent <sup>?</sup>

WomenInTechEvents

Create custom intent

☐ Use an existing intent from Alexa's built-in library <sup>?</sup>

[Learn more](#) about using built-in intents.

Search built-ins



# Intents / WomenInTechEvents

## Sample Utterances (4) ?

[Bulk Edit](#)[Export](#)

What might a user say to invoke this intent?



When is the next {EventType} of Women in Technology



When is the next {EventType} of Women in Tech



When is the next Women in Tech {EventType}



When is the next Women in Technology {EventType}



Intents / WomenInTechEvents / EventType

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## Slot Type

EventType



Auto delegation is disabled for this intent (set in [intent setting](#)).

Slot Values (4) ?

 Bulk Edit





 Export

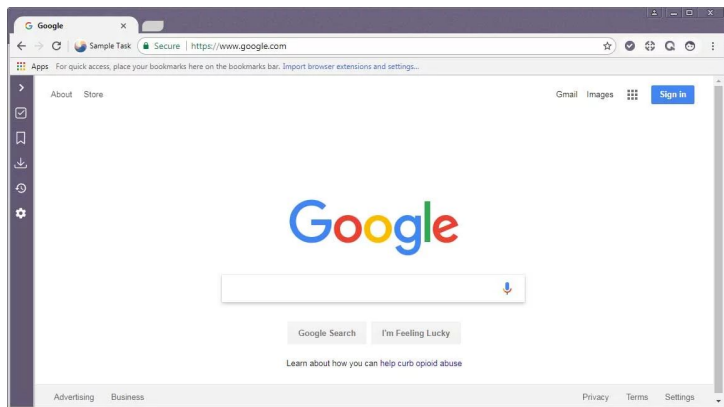
Search



Enter a new value for this slot type

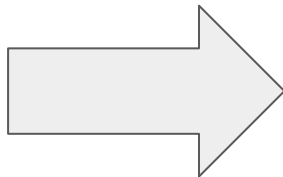
+

VALUE <span>?</span>	ID (OPTIONAL) <span>?</span>	SYNONYMS (OPTIONAL) <span>?</span>		
afterwork	Enter ID	Add synonym	+	
event	Enter ID	Add synonym	+	
workshop	Enter ID	Add synonym	+	
meet up	Enter ID	Add synonym	+	



JavaScript

Frontend :)

A terminal window titled 'debeling -- -bash-- 80x30' showing the output of the 'npm help npm' command. The output lists various npm commands and their descriptions, such as 'access', 'add-user', 'adduser', 'apihelp', 'author', 'bin', 'bugs', 'c', 'cache', 'completion', 'config', 'ddp', 'dedupe', 'deprecate', 'dist-tag', 'dist-tags', 'docs', 'edit', 'explore', 'faq', 'find', 'find-dupes', 'get', 'help', 'help-search', 'home', 'i', 'info', 'init', 'install', 'issues', 'la', 'link', 'list', 'll', 'ln', 'login', 'logout', 'ls', 'outdated', 'owner', 'pack', 'ping', 'prefix', 'prune', 'publish', 'r', 'rb', 'rebuild', 'remove', 'repo', 'restart', 'rm', 'root', 'run-script', 's', 'se', 'search', 'set', 'show', 'shrinkwrap', 'star', 'stars', 'start', 'stop', 't', 'tag', 'team', 'test', 'tst', 'un', 'uninstall', 'unlink', 'unpublish', 'unstar', 'up', 'update', 'upgrade', 'v', 'verison', 'version', 'view', 'whoami'. It also includes a section for specifying configs in the ini-formatted file or on the command line via 'npm <command> --key value'.

NodeJS  
(runtime env)

Web application! Backend! :)



Import/Install  
other  
modules

npm  
package.json

```
const WomenInTechEventHandler = {  
  canHandle(handlerInput) {  
    return handlerInput.requestEnvelope.request.type === 'IntentRequest'  
    && handlerInput.requestEnvelope.request.intent.name === 'WomenInTechEvents';  
  },  
  handle(handlerInput) {  
    const event = handlerInput.requestEnvelope.request.intent.slots.EventType.value  
    const speechText = 'Next Women in Technology ' + event + ' is today!';  
    return handlerInput.responseBuilder  
      .speak(speechText)  
      // .reprompt('add a reprompt if you want to keep the session open for the user to respond')  
      .getResponse();  
  }  
};
```

---

```
// This handler acts as the entry point for your skill, routing all request and response  
// payloads to the handlers above. Make sure any new handlers or interceptors you've  
// defined are included below. The order matters - they're processed top to bottom.  
exports.handler = Alexa.SkillBuilders.custom()  
  .addRequestHandlers(  
    LaunchRequestHandler,  
    HelloWorldIntentHandler,  
    WomenInTechEventHandler,  
    HelpIntentHandler,  
    CancelAndStopIntentHandler,  
    SessionEndedRequestHandler,  
    IntentReflectorHandler) // make sure IntentReflectorHandler is last so it doesn't override your custom intent handlers  
  .addErrorHandlers(  
    ErrorHandler)  
  .lambda();
```

Search

Holds a single value:

- .then(OnResolve,[OnReject])
- .catch(OnReject)

In state of:

- Pending
- Resolved
- Rejected

```
MyPromise().then((value)=> {  
    //do something with value  
}, (err) => {  
    //error handling  
});
```

```
MyPromise().then((value)=> {  
    //do something with value  
}).catch((err) => {  
    //error handling  
});
```

```
async MyPromise(): {  
    //call  
    return value  
}
```

```
var value = await MyPromise()
```

# Intents / SearchIntent

## Sample Utterances (3)

[Bulk Edit](#)[Export](#)

What might a user say to invoke this intent?



tell me about {Topic}



look for {Topic}



search {Topic}



<https://github.com/lucav76/AlexaSkillWIT/tree/master/src/lambda>

```
// Loads the description of a topic from Wikipedia
// Logs available in CloudWatch (click on "Logs: Amazon CloudWatch" in the bottom-left corner of the "Code" section)
async function loadWiki(topic) {
    console.log("loadWiki('" + topic + "')")

    try {
        var content = await httpGet("https://en.wikipedia.org/wiki/" + topic);

        if (content.startsWith("https")) {
            console.log("Follow redirect to: " + content)
            content = await httpGet(content.toString());
        }

        content = dropSomeHtml(content)
        console.log("Content: " + content)
        content = content.toString().match(/<p>([\w\W]*?)</p>/g) // Selects the paragraphs
        console.log("Paragraphs: " + content)
        content = content[0] // Selects the first paragraph
        console.log("Selected Content: " + content)
        content=cleanContent(content);
        console.log("Cleaned content: " + content)

        return content;
    }
    catch(e) {
        return "Err: " + e
    }
}
```

Save, build and test





Remove your deployed functions to  
Lambda. That might cost you in the  
future (\$1/month?)

What  
is not **COVERED?**

Distribution  
Certification  
Analytics

**FREE**

**FREE**

**FREE**

# TAPAD



*New York*

*Oslo*