

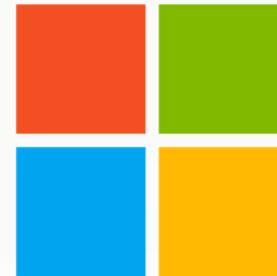


THAT CONFERENCE

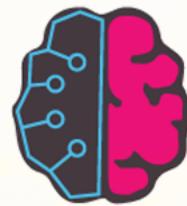




THANK YOU, THAT CONFERENCE SPONSORS!



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Setting Up Camp With Alexa

DANA HART



Overview

- Alexa & Conversational Interfaces
- Alexa Skills Kit
- AWS Lambda
- Code Review & Demos
- Testing & Deployment options
- Lex & Polly
- Q&A

Amazon Alexa

- Intelligent personal assistant
 - Play music, answer general questions, order pizza, set your calendar
- Natural user interface – understanding human speech
 - The more use, the more internal learning
- Conversational Interface
- Alexa Voice Service
 - Voice control to any connect product
- Alexa Fund
 - \$100 million in venture capital funding for voice technology innovation

Alexa Skills Kit & Lambda

SKILLS KIT

- Self-service APIs, tools, documentation and code
- Let's you teach Alexa new skills
- Skill Templates
 - Trivia, fact, how-to, smart home, flash briefing

AWS LAMBDA

- Serverless computing
 - Takes care of everything required to run and scale
- Runs only when triggered
- Data processing, file processing, streaming, IoT backends, ... endless
- Node.js, Python, Java 8, C#

Alexa Skills Kit

- JSON request-response
 - Service receives a POST request, uses the JSON to perform logic, send back JSON response
- Interaction Model
 - Intent Schema: JSON declares what intents your service can accept and process
 - Utterances: list of possible things you might say when interacting with the skill

Intent Schema

The schema of user intents in JSON format. For more information, see [Intent Schema](#).
Also see [built-in slots](#) and [built-in intents](#).

```
1 {
2   "intents": [
3     {
4       "intent": "GetNewFactIntent"
5     },
6     {
7       "intent": "AMAZON.HelpIntent"
8     },
9     {
10      "intent": "AMAZON.StopIntent"
11    },
12  ]
```

Custom Slot Types (Optional)

Custom slot types to be referenced by the Intent Schema and Sample Utterances.
For general information about custom slots, see [Custom Slot Types](#).
Example: TOPPINGS - cheese | onions | ham (note: newlines displayed as | f

Sample Utterances

These are what people say to interact with your skill. Type or paste in all the ways.

Up to 3 of these will be used as Example Phrases, which are hints to users.

```
1 GetNewFactIntent a fact
2 GetNewFactIntent a space fact
3 GetNewFactIntent tell me a fact
4 GetNewFactIntent tell me a space fact
5 GetNewFactIntent give me a fact
6 GetNewFactIntent give me a space fact
7 GetNewFactIntent tell me trivia
8 GetNewFactIntent tell me a space trivia
```

REQUEST

```
{  
    "version": "string",  
    "session": {  
        "new": true,  
        "sessionId": "string",  
        "application": {  
            "applicationId": "string"  
        },  
        "attributes": {  
            "string": {}  
        },  
        "user": {  
            "userId": "string",  
            "accessToken": "string"  
        }  
    },  
    "context": {  
        "System": {  
            "application": {  
                "applicationId": "string"  
            },  
            "user": {  
                "userId": "string",  
                "accessToken": "string"  
            },  
            "device": {  
                "supportedInterfaces": {  
                    "AudioPlayer": {}  
                }  
            },  
            "AudioPlayer": {  
                "token": "string",  
                "offsetInMilliseconds": 0,  
                "playerActivity": "string"  
            }  
        },  
        "request": {}  
    }  
}
```

RESPONSE

```
{  
    "version": "1.0",  
    "sessionAttributes": {  
        "supportedHoroscopePeriods": {  
            "daily": true,  
            "weekly": false,  
            "monthly": false  
        }  
    },  
    "response": {  
        "outputSpeech": {  
            "type": "PlainText",  
            "text": "Today will provide you a new learning opportunity. Stick with it and the p  
        },  
        "card": {  
            "type": "Simple",  
            "title": "Horoscope",  
            "content": "Today will provide you a new learning opportunity. Stick with it and th  
        },  
        "reprompt": {  
            "outputSpeech": {  
                "type": "PlainText",  
                "text": "Can I help you with anything else?"  
            }  
        },  
        "shouldEndSession": false  
    }  
}
```

Alexa Skill Kit

- Intent Schema: Intents & Slots
 - Function & Input
 - Built-in Slot Types: date, duration, number, time
 - Built-in Intents: help, stop
 - Namespaced with 'AMAZON'
 - Have to define custom slots
- Alexa Requests
 - LaunchRequest, IntentRequest, SessionEndedRequest
- Speech Responses
- Alexa SDK for Node.js
 - <https://github.com/alexa/alex-skills-kit-sdk-for-nodejs>

```
{  
  "intents": [  
    {  
      "intent": "GetHoroscope",  
      "slots": [  
        {  
          "name": "Sign",  
          "type": "LIST_OF_SIGNS"  
        },  
        {  
          "name": "Date",  
          "type": "AMAZON.DATE"  
        }  
      ],  
      "intent": "GetLuckyNumbers"  
    }  
  ]  
}
```

Setup & Demo

- How to create/setup an Alexa Skill Kit w/ Lambda
- Demo Apps
 - That Conference Welcome (simple skill with SSML examples)
 - Yoda Speak (web service, multiple Intents, AMAZON.LITERAL slot type)
 - New Relic Performance Check (multiple intents to gather request data)

Testing & Deployment

- Echosim.io
- Alexa Skill UI
- Grunt
- Travis CI
- AWS CloudFormation

Skill Certification

- Policy guidelines
- Security requirements
- Functional Tests
 - Review and test the example phrases
 - Cards
 - Audio playback
- Voice Interface & UX testing
 - Session management
 - Invocation name
 - Intent and slot combinations
 - ‘Launch’ and ‘Help’ commands

Lex & Polly

- Lex is a service to build conversational interfaces to any app using voice and text
 - Converts speech to text
 - Build your own chatbot
-
- Polly is a service that turns text to speech
 - New world of speech enabled applications
-
- <https://console.aws.amazon.com/lex/home?region=us-east-1>

Q & A

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<https://github.com/danahart>

References

- ❖ <https://developer.amazon.com/public/solutions/alexa/alexa-skills-kit/docs/understanding-the-different-types-of-skills>
- ❖ <https://developer.amazon.com/public/solutions/alexa/alexa-skills-kit/docs/alexa-skills-kit-interaction-model-reference>
- ❖ <https://developer.amazon.com/public/solutions/alexa/alexa-skills-kit/docs/built-in-intent-ref/slot-type-reference>
- ❖ <https://github.com/alexa/alexa-skills-kit-sdk-for-nodejs>
- ❖ <https://echosim.io/>
- ❖ <https://github.com/Tim-B/grunt-aws-lambda>
- ❖ <https://github.com/danahart>

Northwestern Mutual Beer Tasting



When: Wednesday, August 9th @ 12pm

Where: Sponsor Area - Northwestern Mutual Booth

What: Sample 3 different beers – 288 tasting available!

Karben 4 Fantasy Factory

Central Waters HHG

Lakefront Klisch Pilsner





SEE YOU NEXT YEAR!

AUGUST 6 - 8, 2018

