

CapTech®

Falling Creek Middle
School Alexa Code
Academy

Others Talk,
We Listen®

Agenda

- Introduction
- CapTech Overview
- Alexa Examples
- Alexa Basics
- Goal of Code Academy
- Timeline
- Set up Environments and Computers
- Structure of Classes
- Logistics

Biography Slide



**Leigh
Robertson**

- From Austin, Texas
- Started working at CapTech in July, 2016
- Work in the Data & Analytics Practice area
- Love playing basketball and being outside in my free time



**Kate
Rogers**

- From Ann Arbor, Michigan
- Started working at CapTech in August, 2018
- Work in Systems Integration Practice Area as a Developer
- Lived in Germany for a year



**Tyler
Sudbrink**

- From Greensboro, North Carolina
- Started working at CapTech in August, 2018
- Work in the Data & Analytics Practice area
- Worked as a professional fisherman for 6 summers

Introduction

- Name?
- What are you going to be for Halloween?
- Favorite thing to do with your free time?
- How do you interact with technology on a daily basis?
 - Video games?
 - Phone you use?
 - Have you ever coded?
- What do you hope to get out of this class?

Who Is CapTech

Customer Experience



- Insights
- Strategy & Innovation
- Design & Development
- Management & Optimization



Technology Solutions

- Mobile & Devices
- Services & APIs
- Cloud
- DevOps
- Web Content & Collaboration
- Test Automation



Data & Analytics

- Big Data
- Data Analysis & Governance
- Data Engineering
- Data Science & Visualization
- Data Strategy & Architecture



Transformation

- Agile Transformation & Coaching
- Change Management
- Program Governance & Strategy
- Risk & Compliance
- IT Service Management
- Risk & Compliance
- Salesforce Enablement



Awards



Where is CapTech



Locations

Atlanta, GA
Baltimore, MD
Charlotte, NC
Chicago, IL
Columbus, OH
Denver, CO

Orlando, FL
Philadelphia, PA
Richmond, VA
San Francisco, CA
Washington, D.C. Metro

Amazon Alexa Overview

- Who is familiar with Amazon Alexa here?
- Examples:
 - <https://www.youtube.com/watch?v=qux0zs2jFgc>
 - https://www.youtube.com/watch?v=LsS_WEdYiuA
- Demonstrate Randolph Elementary Skill

What/who is Alexa?

A **voice-controlled personal assistant** developed by Amazon. But also an example of...

Artificial Intelligence (AI). Alexa uses a service called Amazon Lex which uses **deep learning** to convert speech to text, and **natural language understanding** (NLU) to figure out the intent of the text.



Devices that use Alexa – the “Internet of Things”



Added in 2017:



Echo Look



Echo Show



Dash Wand

What are Alexa skills?

- Alexa has some built-in features (music, reminders, timers, calling other users, weather, facts, calendar integration, etc.)
- **Skills** can be created by any person or company to add new capabilities to Alexa.
- Anyone with a device that uses Alexa can enable and choose from thousands of skills

What can Alexa skills do?



Home Automation

"Alexa, set the basement to 68 degrees"



Food Ordering

"Alexa, open Domino's and place my Easy Order"



News

"Alexa, ask Washington Post for headlines"

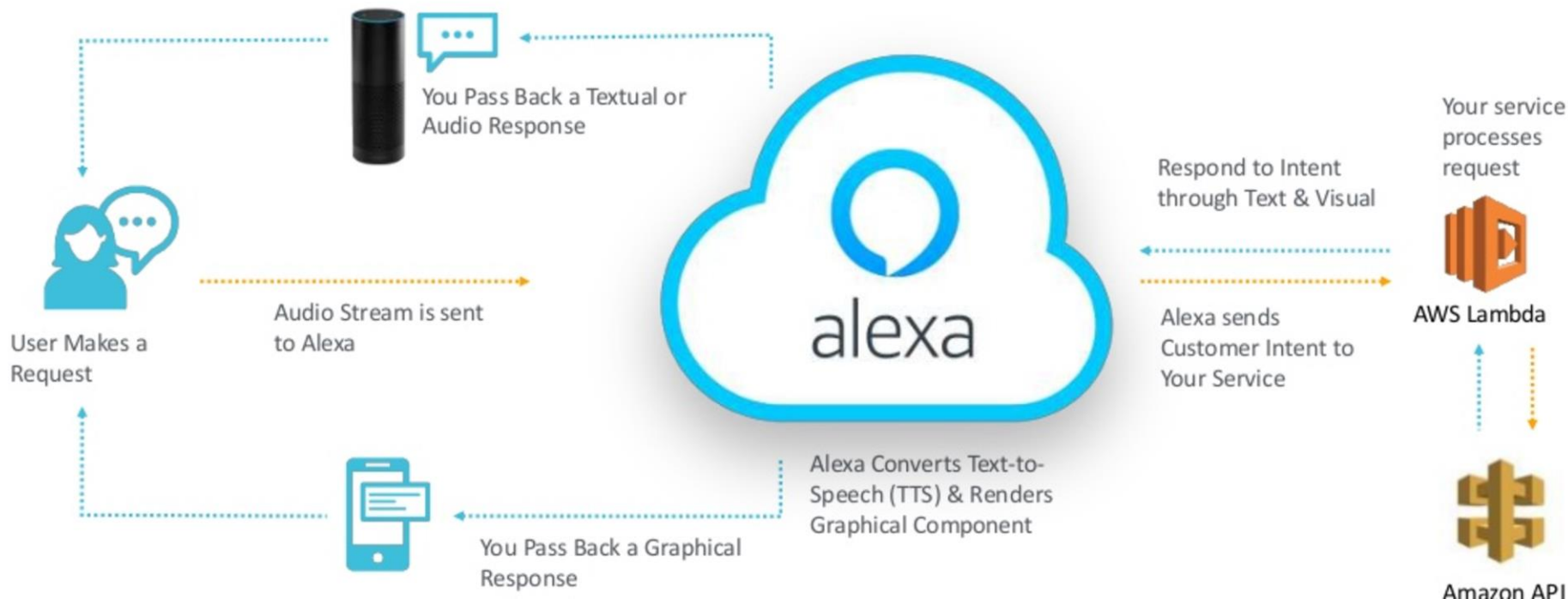


Games

"Alexa, play Jeopardy"

The Life Cycle of our Skill

A look at how the Alexa Skills Kit process a request and returns an appropriate response



Terminology

Alexa, tell Personality Type to start the quiz.

Wake word Launch Skill Invocation Name Utterance



Executes the "Quiz" intent

Alexa, ask Personality Type for a fun fact.

Wake word Launch Skill Invocation Name Utterance

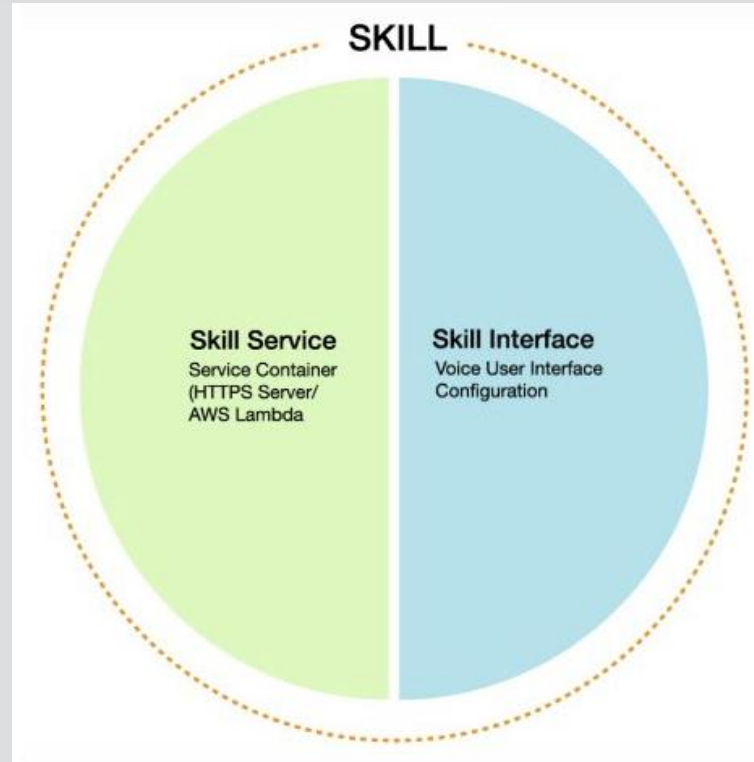


Executes the "Fact" intent

Alexa Exercise

- Let's create a sample skill and demonstrate some of the concepts:
 - Alexa, what are candy options for Halloween?
 - Alexa, does Party City have a Superman costume?

Components of an Alexa skill



Goal

- Create a certified Alexa skill about Falling Creek Middle School
 - Will work in teams to create various components of the skill with supervision
 - Get skill published by end of code academy
 - Earn rewards for a published skill
 - Will allow anyone with an Amazon account to download the skill
- If time allows, will work to create individual Amazon Alexa skills
 - Will have students come up with their own Alexa skill and help them design/ create

Estimated Timeline

Week	Date of Class	Time	Goals (*Subject to change)
1	10/18	3-5PM	Introduction, high level Alexa and set up environments
2	10/25	3-5PM	Lecture/ begin building skills
3	11/1	3-5PM	Build Falling Creek Alexa skill
4	11/8	4-5PM	Build Falling Creek Alexa skill
5	11/15	4-5PM	Build Falling Creek Alexa skill/ Design individual skills
6	11/29	4-5PM	Build Individual skill
7	12/6	3-5PM	Prepare for presentation
8	12/13	6-7:30PM	Final Presentation at CapTech Office

Set Up Tasks

- Set up Slack and Github Repo



slack



GitHub

Logistics

- Will use slack for all communication



- Use the general channel for all questions as someone else may have the same question

- Github

- Open source version control system



- Since developers make constant changes to code, organizes each of these revisions in a central repository
 - Each project has it's own repo (or project repository) which can be accessed with a unique URL
 - Our project can be found here: <https://github.com/captechconsulting/falling-creek-middle-school>

Assignment Number #1

- Will be available on Github
- Tell us a skill that you would like to create and come up with some sample utterances and intents



The logo for CapTech, featuring the word "CapTech" in a bold, white, sans-serif font. A registered trademark symbol (®) is located at the top right of the word "Tech".

CapTech®

Thank You

Others Talk,
We Listen®

Appendix
