Writing Ruby Apps for the Amazon Echo

$ whoami

@zachfeldman
Co-Founder/Chief Academic Officer
New York Code + Design Academy
in Philadelphia!
nycda.com

Classes on web development that meet either for 3 months during the day or 4 months twice a week at night - right here at the Hub! And in NYC, Syracuse, and Amsterdam.

The Amazon Echo

It has 7 microphones

Built-in functionality

"Alexa, set an alarm for 45 seconds from now."

"Alexa, tell me a joke."

"Alexa, play Good Morning by Kanye West."

"Alexa, what's the forecast for tomorrow?"

Initial third-party app development efforts

alexaho.me

alexaho.me project approach

- Included scaper (uses JS injection) and server to process commands

- Took advantage of, "stop" keyword to bypass system commands

- Text parsing done "manually", different than Amazon "intent" system

- Ultimately unreliable, although popular

Some integrations built with alexaho.me

- Twitter

- Hue (personal wifi lights)

- Nest (thermostat)

Official SDK status

- Now available for any dev with an Echo to sign up for

- Most code samples are in Java, documentation is very high-level

Official SDK app architecture

- Apps are written as web services that Alexa sends requests to

- JSON responses prompt the Echo to talk back to user and display "cards"

- Apps are basically a "conversation" that can only last so long

Official SDK app architecture

- Amazon side

  - Intent schema (+ custom slots)

  - Sample utterances

- App side

  - Utterance parsing

  - Results being returned as JSON

Demo - Uber integration

Let's see some code

Unique issues w/ using Sinatra

- New sessions are initiated each time the Alexa service sends a request

- Can't be setup on a simple AWS Lambda

Notes on setup

- I'm using an AWS Lambda as a proxy for my Alexa requests

- Normally, all Alexa apps have to be on a server with a valid SSL cert

- Instead, you can use a lambda and redirect requests locally

Where do we go from here?

- Working on a DSL to designate Alexa apps with Ruby

- Would work in a similar way to Sinatra dividing requests into LaunchRequest, IntentRequest, EndSessionRequest

- Wishing Amazon provided a way to send delayed responses...

Thanks!
Questions?