

VMware {code} Experience Training

Integrating VMware API's and Amazon Echo (Alexa)

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“Alexa...What Should I Have to Get Started”

Hackathon Training: Integrating VMware API's and Amazon Echo (Alexa) [VMTN6721U]

Trainer: *Cody De Arkland*, Senior Systems Engineer, SLED West, VMware

Bring your laptop, GitHub account and your favorite IDE and learn how you can easily get started integrating your VMware environments with your Amazon Echo devices. We will take you on a magic carpet ride exploring Python, the Flask web framework, VMware API endpoints, Clarity, and Docker. By the end of this session, you'll be a few steps closer to having your Homelab talk back to you!

- Install an IDE for Code Development
 - We will be training based on Visual Studio Code, a Free IDE with a ton of really helpful plugins (<https://code.visualstudio.com/>)
- Install Python3 (3.6 is what we will be training on)
 - <https://www.python.org/downloads/release/python-362/>
- Install required Python modules with PIP (pip install **modulename**)
 - **virtualenv** (<https://virtualenv.pypa.io/en/stable/installation/>)
 - **flask** (<http://flask.pocoo.org/docs/0.12/installation/>)
 - **flask-ask** (https://flask-ask.readthedocs.io/en/latest/getting_started.html#installation)
- Establish a GitHub account (<https://github.com>) ***Not required; but a good idea***
- Download Ngrok (<https://ngrok.com/download>)

Great Resources

- VMWare{CODE} API Explorer
 - <https://code.vmware.com/explorer-apis>
- Python Flask Documentation
 - <http://flask.pocoo.org/docs/0.12/>
- Flask-ASK Documentation Page
 - <https://flask-ask.readthedocs.io/en/latest/>
- Cody De Arkland's Blog on Amazon Echo Integration
 - <https://www.thehumblelab.com/integrating-echo-vmware/>
- William Lam's Blog on Furthering Echo Integration
 - <https://www.virtuallyghetto.com/2017/06/introducing-alexa-to-a-few-more-vmware-apis.html>

You can clone the training content for this repository at the following GitHub URL

<https://github.com/codyde/Hackathon-Training>

- Install Git on your System
- Change to Desired Directory
 - “Git Clone” the URL Above
- Enjoy the Hackathon Content at Home!
 - Fork and Contribute!

“Alexa...What Are We Going to Accomplish”

- Programmability with the Amazon Echo
- Evolution of VMware API's
- Echo Interaction with API and SDK's
- Formatting Responses
- Deploying Skills



So Why The Echo?

- Extremely Extensible
 - Multiple Language Support
 - Python, NodeJS, Anything “REST Capable”
- Many Frameworks
 - Standard SDKs/Mature Community SDKs
 - Easy to get Started
- Directly Integrated with all things AWS



AWS
Lambda



AWS
CodeBuild



AWS
CodePipeline

Hackathon Training Mission

- Create a Basic Flask Server in Python
- Learn how to build interaction between Amazon Echo and vCenter API's
- Build a basic configuration interface
- Design creative responses to Amazon Echo Intents
- Learn to host a skill

Lets Get Started!

Follow Along in the GitHub Repository

<https://github.com/codyde/Hackathon-Training>