DevOps Jumpstart. Zero to CI/CD in a Week
DevNet

Where: Cabrillo College (Aptos, Santa Cruz)
When: June 19, 2017 Thru June 23, 2017

Overview:

Developing applications using modern technologies and practices like DevOps requires more than simply understanding a programming language like Python or Javascript. Experience and skill with source control, container technologies, collaboration services, and build bots is also needed.

To achieve this, we have crafted an intensive hands-on training program designed to jump start engineers with a foundation in DevOps practices. The training material is designed to introduce a concept, provide basic hands-on examples, and challenges to reinforce the material.

Course Modules:

General Development Concepts

Developing software involves much more than simply programming languages and APIs. In this module we will explore four topics that are fundamental to any successful development project.

General Development Skills

This hands on module is designed to provide you with some experience with several important utility tools and technologies which are very important and time saving. We will cover Basic Linux Tools, Markdown, and several Python topics.

Advanced Source Control – Git and Github
Git and GitHub remain the most popular source control platforms for developers today. We will review the basics of git repository creation and interaction, before moving into topics including branches, pull requests, issues, and forking in this hands-on module.

Advanced Docker and Docker Hub
Docker, continues to be a major aspect of modern development practices and deployment strategies. Topics discussed in this hands-on module include Dockerfile creation, registry options, the meaning and use of tags, and auto-build repositories.

Implementing CI/CD
In the session we will dive into CICD and come out with a detailed understanding of what happens in a "Code Pipeline". The module begins with foundational knowledge about CICD, and end with a guided lab where a full pipeline is constructed and tested.

Deploying Micro-Services Applications
Application developers need a modern infrastructure stack (or cloud) to deploy onto. In this module instructors are shown how to consume several leading Open Source tools including Marathon/Mesos, Consul and Traefik for deploying their applications onto a Mantl.io stack.

From idea to application
Good demo applications should be easy to deploy, use and contribute code to. This means focus up front on questions like "How will others deploy my application?", "How can I quickly and easily test application changes?", and "What is my MVP and how can I build it fast!" are critical. In this module we'll suggest an approach to the building applications.

Instructor:

Matt Johnson

Instructor Bio: UK based, and now in his fifth year with Cisco. Matt has spent most of his life at the coal-face of IT operations, pushing an agenda of automation, infrastructure as code and repeatability; which form some of the founding principles of the DevOps movement. Working within Cisco's DEVNET organisation as a Developer Evangelist, he takes this experience to promote modern development and operations practices to customers, partners and staff alike. When not sat behind a heavily stickered laptop, he enjoys motorsports, rugby, photography, shooting and his growing collection of single malt.

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