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CISCO
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WHERE GREAT TRAINING HAPPENS EVERYDAY!

IMPLEMENTING DEVOPS SOLUTIONS AND PRACTICES USING CISCO PLATFORMS (DEVOPS) V1.0

IMPLEMENTING DEVOPS SOLUTIONS AND PRACTICES USING CISCO PLATFORMS (DEVOPS) V1.0

The Implementing DevOps Solutions and Practices Using Cisco Platforms (DEVOPS) v1.0 course teaches you how to automate application deployment, enable automated configuration, enhance management, and improve scalability of cloud microservices and infrastructure processes on Cisco® platforms. You will also learn how to integrate Docker and Kubernetes to create advanced capabilities and flexibility in application deployment. This course prepares you for the 300-910 Implementing DevOps Solutions and Practices Using Cisco Platforms (DEVOPS) certification exam.

How you'll benefit

This class will help you:

- Gain the high-demand knowledge and skills to implement automation, streamline container orchestration, and enhance scalability
- Learn the skills to maximize the lightweight design of containers to scale more quickly and allow more responsiveness to website traffic load
- Earn 40 CE credits toward recertification
- Prepare for the 300-910 DEVOPS exam

Why Attend with Current Technologies CLC

- Our Instructors are in the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The primary audience for this course is as follows:

- Systems Engineer
- Wireless Engineer
- Consulting Systems Engineer
- Technical Solutions Architect
- Network Administrator
- Wireless Design Engineer
- Network Manager
- Sales Engineer
- Account Manager

Course Duration
5 days
Course Price
$4,495.00 or 45 CLCs
Methods of Delivery
- Instructor Led
- Virtual ILT
- On-Site

Prerequisites

Before taking this course, you should have the following knowledge and skills:

- Basic understanding of compute virtualization
- Ability to use Linux, text-driven interfaces, and CLI tools, such as Secure Shell (SSH), bash, grep, ip, vim/nano, curl, ping, traceroute, and telnet
- Foundational understanding of Linux-based OS architecture and system utilities
- CCNA® level core networking knowledge
- Foundational understanding of DevOps concepts
- Awareness and familiarity with continuous integration, continuous deployment, and continuous delivery CI/CD) concepts
- Hands-on experience with Git

OUTLINE

Module 1: Introducing the DevOps Model

Module 2: Introducing Containers

Module 3: Packaging an Application Using Docker

Module 4: Deploying a Multitier Application

Module 5: Introducing CI/CD

Module 6: Building the DevOps Flow

Module 7: Validating the Application Build Process

Module 8: Building an Improved Deployment Flow

Module 9: Extending DevOps Practices to the Entire Infrastructure

Module 10: Implementing On-Demand Test Environments at the Infrastructure Level

Module 11: Monitoring in NetDevOps

Module 12: Engineering for Visibility and Stability

Module 13: Securing DevOps Workflows

Module 14: Exploring Multicloud Strategies

Module 15: Examining Application and Deployment Architectures

Module 16: Describing Kubernetes

Module 17: Integrating Multiple Data Center Deployments with Kubernetes

Module 18: Monitoring and Logging in Kubernetes

LAB OUTLINE

lab 1: Interact with GitLab Continuous Integration (CI)

lab 2: Explore Docker Command-Line Tools

lab 3: Package and Run a WebApp Container

lab 4: Build and Deploy Multiple Containers to Create a Three-Tier Application

lab 5: Explore Docker Networking

lab 6: Build and Deploy an Application Using Docker Compose

lab 7: Implement a Pipeline in Gitlab CI

lab 8: Automate the Deployment of an Application

lab 9: Validate the Application Build Process

lab 10: Validate the Deployment and Fix the Infrastructure

lab 11: Build a Yaml Ain't Markup Language (YAML) Infrastructure as Code (IaC) Specification for the Test

Environment

lab 12: Manage On-Demand Test Environments with Terraform

lab 13: Build Ansible Playbooks to Manage Infrastructure

lab 14: Integrate the Testing Environment in the CI/CD Pipeline

lab 15: Implement Pre-deployment Health Checks

lab 16: Set Up Logging for the Application Servers and Visualize with Kibana

lab 17: Create System Dashboard Focused on Metrics

lab 18: Use Alerts Through Kibana

lab 19: Instrument Application Monitoring

lab 20: Use Alerts and Thresholds to Notify Webhook Listener and Cisco Webex® Teams™ Rooms

lab 21: Secure Infrastructure in the CI/CD Pipeline

lab 22: Explore Kubernetes Setup and Deploy an Application

lab 23: Explore and Modify a Kubernetes CI/CD Pipeline

lab 24: Kubernetes Monitoring and Metrics—Elasticsearch, Logstash, and Kibana (ELK)