



DTB-CCM-101

DEV OPS on AWS

Program Information



Nature of the Course
Theory + Practical



Total Hours per Day
2 hours



Course Duration
6 Weeks

Course Summary

This course covers all the fundamentals about Docker software and teaches you everything you need to know about deploying modern applications with Docker software.

In the end of this course, you will gain in-depth knowledge about CI/CD and Infrastructure as a Code.

Completion Criteria

- After fulfilling all of the following criteria, the student will be deemed to have finished the Module:
- Has attended 90% of all classes held
- Has received an average grade of 80% on all assignments
- Has received an average of 60% in assessments
- The tutor believes the student has grasped all of the concepts and is ready to go on to the second module.

Required Textbooks

- The DevOps Handbook
- Effective DevOps
- Continuous Delivery

Course Details



Week 1

Lesson 1

DEVOPS

- Introduction to DevOps
 - Aspects of DevOps
 - Tools Used in DevOps
-

Lesson 2

Linux

- Basic Commands
 - Service management using system
 - Web Hosting
 - Scripting
-

Lesson 3

Exploring React Native Core Components

- Introduction
 - Setup Virtual Machines (Oracle VirtualBox)
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Week 2:

Lesson 1

GIT

- Introduction to Version Control
 - Using Git Locally
 - Working with Remotes
-

Lesson 2

Vagrant

- Introduction
 - Writing a Vagrant file
-

Lesson 3

Cloud And IaaS

- Introduction to IaaS
 - Different IaaS vendors
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Lesson 4

Containers

- Introduction to Docker
 - Docker Installation (Docker for windows, Docker-CE linux based servers)
 - Docker Components
 - Handling Docker Images
 - Running Docker containers
 - Writing Docker file
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Week 3-4 :

Lesson 1

CI/CD

- Introduction to CI/CD
 - Different CI/CD Platforms and Tools
 - Introduction to Github Actions
 - Writing Github actions workflow
-

Lesson 2

Container Orchestration

- Introduction
 - Docker compose
 - Docker Swarm
 - Introduction to Kubernetes
-



Week 5-6 :

Lesson 1

Cloud Platform(AWS)

- ·What is IAM?
 - ·Setting up EC2
 - ·Introduction to load balancer and auto scaling group
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Lesson 2

Infrastructure As A Code

- Introduction
 - Different tools in IaaS
 - Introduction to Ansible
 - Writing Ansible playbooks
 - Writing inventory files
 - Introduction to Terraform
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Lesson 3

Monitoring

- Introduction
 - Tools used in Monitoring
 - Prometheus vs Zabbix
-

Labs

Lab assignments will focus on the practice and mastery of contents covered in the lectures, and introduce critical and fundamental problem solving techniques to the students.

Learning Outcomes

- Able to set up virtual machines
- Learn how to use Docker and containers
- Creating a pipeline for Continuous Integration and Continuous Deployment
- Basic Knowledge of Cloud Computing and its use
- General idea of Infrastructure as a Code



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