
Continuous Delivery Ecosystem Foundation

Overview

This course is designed for participants who are engaged in the design, implementation, and management of DevOps deployment pipelines and toolchains that support Continuous Integration, Continuous Delivery, Continuous Testing and potentially Continuous Deployment. The course highlights underpinning processes, metrics, APIs and cultural considerations with Continuous Delivery. Key benefits of Continuous Delivery will be covered including increased velocity to assist organizations to respond to market changes rapidly, thus being able to outmaneuver competition, reduce risk and lower costs while releasing higher quality solutions. Increased productivity and employee morale by having more activities performed by pipelines instead of humans so teams can focus on vision while pipelines do the execution. This course prepares you for the Continuous Delivery Ecosystem Foundation(CDEF) certification.

Target Audience

- Enterprise architects
- Software developers
- Build engineers
- Release managers and engineers
- Operational and infrastructure teams
- Security professionals
- Testers and QA managers
- IT Managers
- Project Managers
- Maintenance and support staff

Course Objectives

The learning objectives for CDA include a practical understanding of:

- Goals, history, terminology, and pipeline
- The importance, practices, and transformation of a DevOps collaborative culture
- Design practices, such as modular design and microservices
- Continuous Integration (CI), such as version control, builds, and remediation
- Tenets and best practices of Continuous Testing (CT)
- Continuous Delivery and Deployment (CD): packaging, containers, and release
- Continuous Monitoring (CM): monitoring and analysis infrastructure, process, and apps
- Infrastructure and tools: frameworks, tools, and infrastructure as code
- Security Assurance: DevSecOps
- The opportunity to hear and share real-life scenarios

Course Outline

1 - Course Introduction

Course goals
Course agenda

2 - CDA Concepts

Continuous delivery (CD) definition
Architecting for continuous delivery
Continuous delivery and DevOps
Relationships between CD, Waterfall, Agile, ITIL, and DevOps
Benefits of continuous delivery

3 - CDA Culture

Importance of culture to the CD Architect
What a CD Architect can do about culture
How to maintain culture
Assignment: DevOps culture and practices to create flow

4 - Design Practices for Continuous Delivery

Why design is important to continuous delivery
CD Architect's role in design
Key design principles
CD best practices
Microservices and containers

5 - Continuous Integration

Continuous integration (CI) defined
CD Architect's role in CI
Importance of CI
Benefits of CI
CI best practices
Assignment: Optimizing CI workflows

6 - Continuous Testing

Continuous testing (CT) defined
Importance of CT
Benefits of CT
CD Architect's role in CT
Five tenets of CT
CT best practices
Assignment: Handling environment inconsistencies

7 - Continuous Delivery and Deployment

Continuous delivery defined
Continuous deployment defined
Benefits of continuous delivery and deployment
CD Architect's role in continuous delivery and deployment
Continuous delivery and deployment best practices
Assignment: Distinguishing continuous delivery and deployment

8 - Continuous Monitoring

Continuous monitoring defined
Importance of continuous monitoring
CD Architect's role in continuous monitoring
Continuous monitoring best practices
Assignment: Monitoring build progress

9 - Infrastructure and Tools

Importance of infrastructure and tools
CD Architect's role in infrastructure and tools
Building a DevOps toolchain
Infrastructure/tools best practices
Assignment: identifying common infrastructure/tool components

10 - Security Assurance

Importance of security assurance
DevSecOps and Rugged DevOps defined
CD Architect's role in security
Security best practices
Assignment: Applying security practices

11 - Capstone exercise

Identifying toolchain and workflow improvements

12 - Summary

Additional Sources of Information

13 - Exam Preparations

Exam requirements
Sample exam review

Related Courses, Certifications, Exams

- Certified Continuous Delivery Architect (CDA)