

DOI Continuous Testing Foundation (CTF) Certificate Program

Course Summary

Description

This comprehensive course addresses testing in a DevOps environment and covers concepts such as the active use of test automation, testing earlier in the development cycle, and instilling testing skills in developers, quality assurance, security, and operational teams.

The course is relevant for every modern IT professional involved in defining or deploying a DevOps testing strategy for their organization, as test engineering is the backbone of DevOps and the primary key for successful DevOps pipeline to support digital transformation.

Actionable and exciting exercises will be used to apply the concepts covered in the course and sample documents, templates, tools, and techniques will be provided to leverage after the class.

This certification positions learners to successfully complete the Continuous Testing Foundation exam.

Objectives

At the end of this course, students will be able to:

- The purpose, benefits, concepts, and vocabulary of DevOps testing
- How DevOps testing differs from other types of testing
- DevOps testing strategies, test management, and results analysis
- Strategies for selecting test tools and implementing test automation
- Integration of DevOps testing into Continuous Integration and Continuous Delivery workflows
- How DevOps testers fit with a DevOps culture, organization, and roles

Topics

- Course Objectives and Modules, Logistics
- What is DevOps Testing and its Business Benefits?
- Relation of DevOps testing to other test methodologies
- DevOps testing best practices
- What is the DevOps pipeline?
- Test Automation Frameworks
- Test Case Best Practices & Design Exercise
- Test Suite Best Practices & Design Exercise
- Principles of DevOps Management
- DevOps Test Management Metrics
- DevOps Management Tools
- DevOps Test Results Analysis
- Integrating DevOps Results Analysis
- Test Management Exercise
- Fictitious Product Test Requirements
- Individual Exercise
- Class discussion
- Exam Preparation

Audience

The target audience for the Continuous Testing Foundation course is anyone involved in defining a DevOps Testing strategy, such as: Delivery Staff, DevOps Engineers, IT Managers, Project Managers, Lab Staff, Maintenance and Support Staff, Quality Assurance Managers, Quality Assurance Teams, Release Managers, Testers, and Software Engineers.

Prerequisites

An understanding and knowledge of common DevOps terminology and concepts and related work experience are recommended,

Duration

Two days

DOI Continuous Testing Foundation (CTF) Certificate Program

Course Outline

- I. Course Objectives and Modules, Logistics*
- II. What is DevOps Testing and its Business Benefits?*
- III. Relation of DevOps testing to other test methodologies*
- IV. DevOps testing best practices*
 - A. DevOps Testing Terminology
 - B. Culture changes
 - C. Organization changes
 - D. Process and team friction
 - E. Motivation strategies
 - F. Measuring Success
 - G. Continuous Evolution
 - H. Troubleshooting
- V. What is the DevOps pipeline?*
 - A. DevOps Testing on the pipeline
 - B. Test strategy choices
 - C. Pre-Flight strategies
 - D. Continuous Integration Testing
 - E. System, Delivery and Customer Testing
 - F. Test Environments
 - G. Lab Management
 - H. Topology orchestration
- VI. Test Automation Frameworks*
 - A. Test Tools
 - B. Selection criterion
 - C. Automated metrics
 - D. Key concepts
- VII. Test Case Best Practices & Design Exercise*
- VIII. Test Suite Best Practices & Design Exercise*
- IX. Principles of DevOps Management*
- X. DevOps Test Management Metrics*
- XI. DevOps Management Tools*
- XII. DevOps Test Results Analysis*
- XIII. Integrating DevOps Results Analysis*
- XIV. Test Management Exercise*
- XV. Fictitious Product Test Requirements*
- XVI. Individual Exercise*
- XVII. Class discussion*
- XVIII. Exam Preparation*