



Jenkins Automation Server Essentials

- 2 Day Course
- Lecture and Lab
- Every course includes the opportunity to earn a Jenkins Automation Server Essentials certification from Alta3 Research.

Course Overview

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This course covers the fundamentals necessary to deploy and utilize the Jenkins automation server. Jenkins enables users to immediately begin automating both their individual and collaborative workflows. Jenkins is a proven solution for a wide variety of tasks ranging from the helpful automation of scripts (such as Python and Ansible) to creating complex pipelines that govern the technical parts of not only Continuous Integration, but Continuous Delivery (CI/CD) as well. Jenkins is free, open source, and easily controlled with a simple web-based UI- it can be expanded by third party plugins and is deployable on nearly any on-site (Linux, Windows and Mac) or cloud platform.

Who Should Attend

- DevOps Engineers
- Software Developers
- Telecommunications Professionals
- Architects
- Quality Assurance & Site Reliability Professionals

What You'll Learn


- Automate basic freestyle projects
- Jenkins Pipelines and Groovy Programming
- Software lifecycle management with Jenkins
- Popular plugins
- Scaling options
- Integrating Jenkins with Git and GitHub (as well as other Software Control Management platforms)
- Triggering Jenkins with Webhooks
- Deploying into Docker and Kubernetes
- CI / CD with Jenkins
- AI LLM prompt engineering for relevant configuration snippets and solutions

Outline

AI LLM Toolkit






-  Lecture + Lab: Large Language Model toolkit for AI Solution Assistance

Getting Started




-  Lecture + Lab: Git and GitHub

-  Lecture + Lab: Git Branching
-  Lecture + Lab: Dockerizing A Python Flask App or Creating A Container Image





Basics

-  Lecture + Lab: Deploying Jenkins with Docker
-  Lecture + Lab: Jenkins Dashboard
-  Lecture + Lab: Freestyle Projects and Workspaces
-  Lecture + Lab: Triggering Jenkins Builds with WebHooks
-  Lecture + Lab: Installing Jenkins Plugins




Scripting

-  Lecture + Lab: Docker Build Agents
-  Lecture + Lab: Python Builds
-  Lecture + Lab: Ansible Builds

CI / CD

-  Lecture + Lab: Continuous Integration
-  Lecture + Lab: Creating Jenkins Scripted Pipelines
-  Lecture + Lab: Declarative vs Scripted Pipelines
-  Lecture + Lab: Jenkins REST API

Administration

-  Lecture + Lab: Backing Up Jenkins
-  Lecture + Lab: Security and Credential Management
-  Lecture + Lab: Configuration as Code

Deploy and Configure

-  Lecture + Lab: Build Agents
-  Lecture + Lab: Freestyle Terraform and Ansible Builds

Certification

- Jenkins Automation Server Essentials - Certification Project