

DEVOPS

ADVANCED

4 DAYS

Continuous Integration, Delivery, and Deployment via Jenkins

Build a strong foundation in CI/CD using Jenkins by understanding core integration, delivery, and deployment concepts. Learn how to install, configure, integrate, and manage Jenkins pipelines to automate builds, testing, and deployments while effectively troubleshooting pipeline issues.

Why Jenkins?

Faster Time to Market

Jenkins can automate the entire software development process, from building and testing to deployment.

Increased Efficiency

Jenkins can automate repetitive tasks, such as building and testing, freeing up your developers to focus on more high-level tasks.

Improved Quality

Jenkins can automatically run tests and checks on your code, catching bugs and errors early in the development process.

What you'll be able to do

- ✓ Gain a thorough understanding of Continuous Integration, Continuous Delivery, and Continuous Deployment concepts.
- ✓ Gain hands-on experience with Jenkins, including installation, configuration, and administration
- ✓ Learn how to integrate Jenkins with other tools commonly used in software development
- ✓ Learn how to create custom pipelines in Jenkins to automate tasks such as building, testing, and deploying software.
- ✓ Learn how to troubleshoot common issues that may arise during the implementation of CI/CD via Jenkins

Who this is for

- Software Developers
- DevOps Engineers
- System Admins
- QA Engineers
- Project Managers
- Technical Support Engineers
- Any IT professional who is responsible for software development and delivery in an organisation

Curriculum

01 Jenkins and CI Foundations

- Apply Jenkins and CI foundations with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

02 Environment Setup

- Apply environment setup with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

03 Build and Test Pipelines

- Apply build and test pipelines with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

04 Deployments

- Apply deployments with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

05 Plugins and Integrations

- Apply plugins and integrations with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

06 Security and Access Control

- Apply security and access control with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
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07 Distributed Agents

- Apply distributed agents with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
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08 Scaling Jenkins

- Apply scaling jenkins with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
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09 Cloud Integration

- Apply cloud integration with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
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10 Advanced Features

- Apply advanced features with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

11 Troubleshooting

- Apply troubleshooting with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards

12 Best Practices and Labs

- Apply best practices and labs with Jenkins in practical DevOps workflows
- Complete hands-on labs with realistic scenarios
- Validate outcomes, logs, and failure modes
- Capture reusable patterns for team standards