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Jenkins Certification Training Course

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Program Overview:

This online CI/CD Pipelines with Jenkins training course will help you learn server automation, continuous integration, build pipelines and configuration tools, automated testing and code quality improvement, and distributed system in Jenkins through intensive hands-on practice assignments.

Program Features:

- ➢ Trusted content
- ➢ Re-learn for free anytime in a year
- ➢ Rigorous assignments and assessments
- ➢ Learn at your own pace
- ➢ Mandatory feedback sessions
- ➢ Mock-interview
- ➢ Hands-on real-time experience

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- ➢ Free Mentorship

- ➢ Live chat for instant solutions

- ➢ Job-ready employees post-training

- ➢ End-to-end training

- ➢ Download the certificate after the course

Delivery Mode:

- ➢ Online Training

Prerequisites:

There are no prerequisites for this course.

Target Audience:

- ➢ Freshers
- ➢ Software developers
- ➢ Software engineers
- ➢ Technical leads
- ➢ System Administrators
- ➢ Test Engineers

Key Learning Outcomes:

- ➢ By the end of this online CI/CD Pipelines with Jenkins training, you will be able to:
- ➢ Install, configure, and secure your Jenkins server
- ➢ Organize and monitor general-purpose build jobs
- ➢ Integrate automated tests to verify the build
- ➢ Set up code quality reporting
- ➢ Establish effective team notification strategies and techniques
- ➢ Configure build pipelines, parameterized jobs, matrix builds, and other advanced jobs
- ➢ Implement automated deployment and continuous delivery

Certification Details and Criteria:

➢ Complete at least 85 percent of the course or attend 1 complete LVC batch
➢ Pass the course-end assessment test with a minimum score of 80 percent

Course Curriculum:

Self Paced Curriculum

Lesson 1 - Course Introduction

➢ Course Introduction
➢ CI/CD with Jenkins Pre-read
➢ Introduction
➢ Course Overview
➢ Get Ready for Jenkins

Lesson 02 - Continuous Integration & Continuous Delivery With Jenkins

➢ Introduction to Jenkins
➢ SDLC and DevOps Culture
➢ Jenkins Feature and Architecture

Lesson 03 - Getting Started With Jenkins

➢ Install Jenkins
➢ Configure Jenkins
➢ Explore Artifactory
➢ Setup Jenkins Job
➢ Jenkins Pipeline View
➢ Install Artifactory
➢ Explore Artifactory

Lesson 04 - CI & CD Pipeline With Jenkins, Gradle & Artifactory

➢ CI and CD Pipeline with Jenkins, Gradle and Artifactory
➢ Build CI and CD Pipeline with Jenkins and Gradle Part - One
➢ Configure Artifactory
➢ Build CI and CD Pipeline with Jenkins and Gradle Part - Two

Lesson 05 - CI & CD Pipeline With Jenkins & Maven

➢ Review Java Web Application Project
➢ Start Building CI and CD Pipeline with Jenkins and Maven
➢ Start Building CI and CD Pipeline with Jenkins and Maven Part - Two
➢ Start Building CI and CD Pipeline with Jenkins and Maven Part - Three

Lesson 06 - Manage Relational Database Schema With Jenkins And Sqitch

➢ Introduction to Sqitch
➢ Build Database Schema Deployment Pipeline with Jenkins and Sqitch
➢ Finish Database Schema Deployment Pipeline with Jenkins and Sqitch

Lesson 07 - Operational Considerations For Jenkins

➢ Jenkins Security
➢ Scaling Jenkins
➢ Scaling Jenkins Part - Two
➢ Jenkins tips and Tricks

Live Virtual Class Curriculum:

Lesson 1 - Course Introduction

➢ Course Introduction

Lesson 02 - Introduction to CI/CD

➢ Lesson Introduction
➢ Traditional Software Development
➢ Continuous Integration
➢ Continuous Delivery
➢ Continuous Deployment
➢ Building the continuous deployment process
➢ Automated Deployment Pipeline
➢ CI/CD Tool Selection

Lesson 03 - Getting Started with Jenkins

➢ Lesson Introduction

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- ➢ Setting Up Git
- ➢ Assisted Practice: Git Set-up
- ➢ Setting Up Jenkins
- ➢ Assisted Practice: Jenkins Set-up
- ➢ Maven Set-up
- ➢ Assisted Practice: Maven Set-up
- ➢ Exploring Jenkins
- ➢ Assisted Practice: Build a Maven Project
- ➢ Building a Maven Project with Jenkins

Lesson 04 - Build Jobs and Configurations

- ➢ Lesson Introduction
- ➢ Understanding Jenkins Build Jobs
- ➢ Freestyle Build Jobs
- ➢ Assisted Practice: Freestyle Job
- ➢ Build Triggers
- ➢ Assisted Practice: Scheduled Builds
- ➢ Assisted Practice: Polling SCM
- ➢ Build Steps
- ➢ Jenkins Environment Variables
- ➢ Post-build Actions
- ➢ Assisted Practice: Post-build Actions
- ➢ Using Jenkins with Other Languages
- ➢ Assisted Practice: Building Projects with Gradle
- ➢ Parameterized Build Jobs
- ➢ Assisted Practice: Parameterized Builds
- ➢ Assisted Practice: Building From Tags
- ➢ Assisted Practice: Remote Triggering Parameterized Builds
- ➢ Enabling Security in Jenkins
- ➢ Assisted Practice: Enabling Security
- ➢ Build Pipelines and Promotions
- ➢ Triggering Parameterized Builds

Lesson 05 - Configuring Build Pipelines

- ➢ Lesson Introduction
- ➢ Introducing Pipelines

- ➢ Understanding Pipeline Structure
- ➢ Defining a Pipeline
- ➢ Declarative Pipeline Syntax
- ➢ Scripted Pipeline Syntax
- ➢ Assisted Practice: Building Pipelines In Jenkins
- ➢ Building a Pipeline
- ➢ Continuous Integration Pipeline
- ➢ Assisted Practice: Building Continuous Integration Pipelines in Jenkins File
- ➢ Building Pipelines from Jenkinsfile
- ➢ Assisted Practice: Building Continuous Integration Pipelines in Jenkinsfile
- ➢ Snippet Generator
- ➢ Unassisted Practice: Snippet Generator
- ➢ Global Variable Reference
- ➢ Declarative Directive Generator
- ➢ Unassisted Practice: Restarting Pipelines
- ➢ Multistage Pipeline

Lesson 06 - Automated Testing In Jenkins

- ➢ Jenkins as an Automation Testing tool
- ➢ Assisted Practice: CI with Junit in Jenkins
- ➢ Code Coverage using Jacoco
- ➢ Assisted Practice: Code Coverage with Jacoco
- ➢ Code Coverage using Clover
- ➢ Assisted Practice: Code Coverage with Clover
- ➢ Acceptance and Performance Tests in Jenkins
- ➢ Assisted Practice: Integrate JMeter with Jenkins
- ➢ Testing Code Coverage

Lesson 07 - Code Quality Improvement Using Jenkins

- ➢ Code Quality and Jenkins
- ➢ Internals of Jenkins Jobs
- ➢ Assisted Practice: FindBugs Integration with Jenkins
- ➢ Code Complexity
- ➢ Assisted Practice: Coverage Complexity with Jenkins
- ➢ Open Tasks
- ➢ SonarQube

- ➢ Assisted Practice: SonarQube with Jenkins
- ➢ Static Code Analysis

Lesson 08 - Automated Deployment and Continuous Delivery

- ➢ Introduction to Automated Deployment and Continuous Delivery
- ➢ Building the Continuous Delivery Process
- ➢ Implementing Automated and Continuous Deployment
- ➢ Assisted Practice: Deploying a Python Application
- ➢ Assisted Practice: Tomcat and Jenkins
- ➢ Assisted Practice: PHP and Jenkins
- ➢ Deploying Maven App To Tomcat Server

Lesson 09 - Distributed System In Jenkins

- ➢ Introduction to Distributed Architecture
- ➢ Assisted Practice: Create Multiple Slave Nodes
- ➢ Deep Diving Jenkins Master/Slave Architecture
- ➢ Assisted Practice: Assigning Jobs To Specific Slave Nodes
- ➢ Distributed Builds

About Us:

Hatigen is the world's #1 online bootcamp provider that enables learners through

rigorous and highly specialized training. We focus on emerging technologies and processes

that are transforming the digital world, at a fraction of the cost and time as traditional

approaches. Over one million professionals and 2000 corporate training organizations have

harnessed our award-winning programs to achieve their career and business goals.