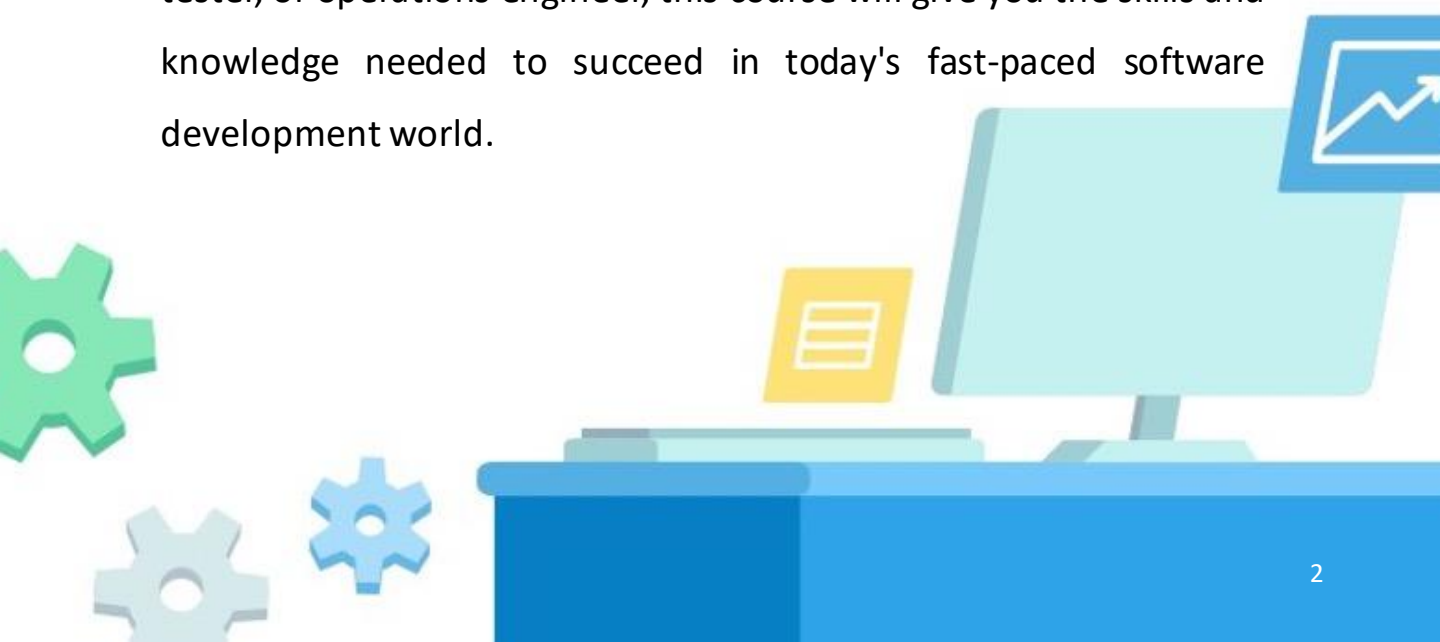Study Plan

Jenkins Administration (JK-ADM)

boer technology

About This Course

This course will teach you how to administer Jenkins, an open-source automation server that enables developers to continuously build, test, and deploy their software. You will learn the fundamentals needed to understand Jenkins and quickly become proficient in using it to manage your software development process. The course covers everything from setting up and configuring Jenkins, to creating and managing jobs and pipelines, to integrating Jenkins with other tools and services.

By the end of the course, you will be able to use Jenkins to automate your software development process, increasing efficiency, reliability, and quality. Whether you are a developer, tester, or operations engineer, this course will give you the skills and knowledge needed to succeed in today's fast-paced software development world.

Summary

Training Duration: 24 Hours (3 Days)

Course Main Subjects

- CI and CD Fundamentals

- Jenkins Overview

- Jenkins Admin Basics

- Plugin Management

- Advanced Jenkins Features

- Working with SCM

- Jenkins Jobs and Builds

- Code Quality and Code Coverage Metrics

- Parameterized Builds

- Pipeline

- Automated Deployments

- Validated Merge for GitHub

- Pull Request Builder for GitHub

- Templates

Target Audience

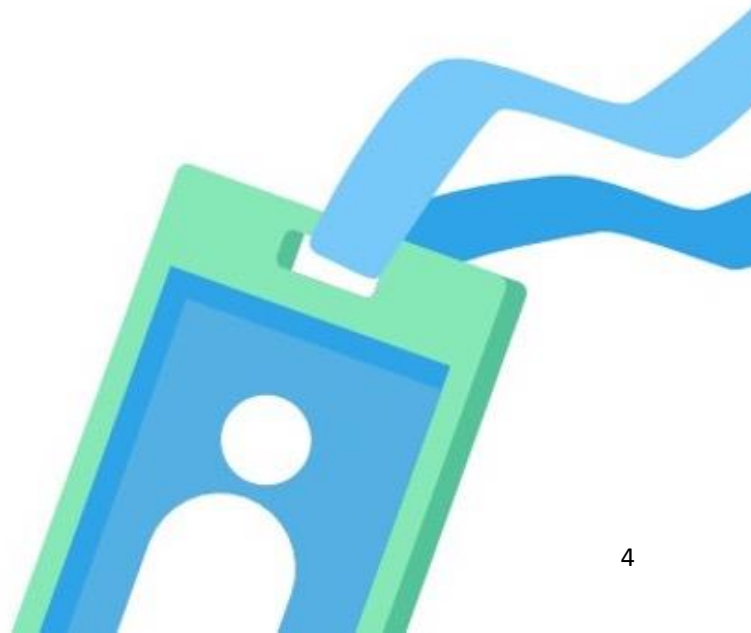System Administrators, Cloud Administrators, Developers, Site Reliability Engineer.

Prerequisites

- Docker for Development and Operations (DO-OPS)
- Linux IT Associate (LF-ASC)

Learning Output

The learning topics will assist participants in :

- Understanding how to install and configure Jenkins.
- Understanding how to setup a Jenkins build server.
- Management of Jenkins nodes and agents.

Requirements

Have a laptop/computer with min. specifications and installed tools:

Operating System	Windows, Linux, or MacOs
Processor	Intel Core i3
Memory	4 GB RAM
SSH Client	Termius / Putty / MobaXTerm
Text Editor	Sublime Text / VSCode
Browser	Chrome and Firefox

Facilities

- Virtual machine (available until H+5 post training)
- Class materials (Access 1 years)
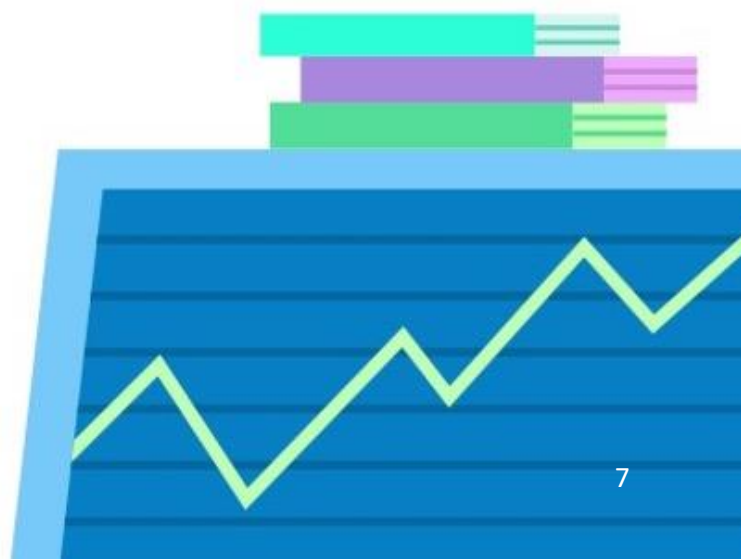- Certificate
- Recording (VITL)

Certification

- Certificate of Course Completion
- Btech Internal Exam (optional)

Learning Strategies

- Theory

- Study Case

- Pre-Test & Post-Test

- Quiz / Internal Exam

- Hands-on Lab

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Learning Modules

Training Plan	
Topic	**Outcome**
CI and CD Fundamentals	• Understand the principles of Continuous Integration and Continuous Delivery • Learn the importance of CI/CD in software development
Jenkins Overview	• Describe the features and architecture of Jenkins • Explain the benefits of using Jenkins for CI/CD
Jenkins Admin Basics	• Install and configure Jenkins • Learn how to manage plugins and integrate with SCM tools
Advanced Jenkins Features	• Utilize advanced features of Jenkins, such as pipelines and parameterized builds • Learn how to configure and use templates for job configuration
Jenkins Jobs/Projects/Builds	• Create and manage Jenkins jobs and projects • Build and deploy applications using Jenkins

Plugin Management	• Learn how to manage and install plugins in Jenkins • Use plugins to extend Jenkins functionality
Working with SCM	• Understand how to integrate Jenkins with SCM tools • Learn how to manage source code using Jenkins
Code Quality and Code Cove rage Metrics	• Understand the importance of code quality and code coverage metrics • Use Jenkins to track and improve code quality and coverage
Parameterized Builds	• Learn how to create parameterized builds in Jenkins • Use parameters to customize build processes
Automated Deployments	• Understand the process of automated deployment • Use Jenkins to automate deployment processes

Validated Merge for GitHub	- Understand how to validate merge requests using Jenkins - Use Jenkins to enforce code quality and coverage checks before merging changes to GitHub
Pull Request Builder for Git Hub	- Learn how to use Jenkins to automate pull request builds and testing - Improve the efficiency and quality of pull request reviews with Jenkins
Templates	- Understand how to create and use templates for Jenkins job configuration - Use templates to standardize job configuration and improve efficiency
Pipeline	- Learn how to use the Jenkins Pipeline feature to create complex build and deployment workflows - Build and deploy applications using a flexible and customizable Pipeline.

Thank You

Another Course :

https://adinusa.id/pro-training