

DEVOPS MODULE



PROFESSIONAL INDUSTRY TRAINING SYLLABUS

Master networking fundamentals
and build the skills needed to design,
implement, and troubleshoot
enterprise networks.



PROJECTS

REAL-WORLD
PROJECTS
TO BUILD PORTFOLIC
AND PRACTICAL
SKILLS.



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PRACTICAL LABS
WITH
STEP-BY-STEP
GUIDED EXERCISES.



INDUSTRY CERTIFICATIONS

PREPARE FOR
GLOBALLY
RECOGNIZED CLOUD
CERTIFICATIONS.TO
BUILD PORTFOLIC
AND PRACTICAL
SKILLS.



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TO ACCELERATE YOUR
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CAREER.

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DEVOPS MODULES

MODULE 1: BASIC LINUX ESSENTIALS COMMANDS

- 1 Copy, paste, move, creation of files, Editing using vim
- 2 User management: create, delete, manage user
- 3 Permission in Linux, installation of packages using rpm and yum

MODULE 2: GIT – A VERSION CONTROL TOOL

- 1 Knowing about Version control
- 2 Git – A CLI
- 3 Essentials of GIT in industry
- 4 How to setup GIT
 - Installing Git
 - First-Time Git Setup
 - Getting a Git Repository
- 5 Working with various commands in GIT
- 6 Recording Changes to the Repository
 - How to check the Status of Your Files
 - How to track New Files
 - Staging our modified files
 - Ignoring Files from GIT
 - Viewing Your Unstaged and Staged Changes
 - How to commit Your Changes
 - Skipping the Staging Area and commit
 - Removing Files from GIT
- 7 Viewing the Commit History
 - Limiting Log Output
 - Using a GUI to Visualize History
- 8 Undoing Things
 - Changing Your Last Commit
 - Unstaging a Staged File
 - Unmodifying a Modified File

9 Working with Remotes

- Showing Your Remotes
- Adding Remote Repositories
- Fetching and Pulling from Your Remotes
- Pushing to Your Remotes
- Inspecting a Remote
- Removing and Renaming Remotes

10 Branching and Merging in Git

- What a Branch Is
- Basics in Branching and Merging
- Branch Management in GIT
- Branching Workflows and its usage
- Remote Branches – create and delete
- Rebasing

11 Git workflows

12 Git cheat sheet

MODULE 3: JENKINS – CONTINUOUS INTEGRATION

1 Essentials of Continuous Integration

2 An example scenario where CI is used

3 Know about Jenkins and its architecture in detail

4 Jenkins tool Management in detail

5 Installing Jenkins

6 Post-installation setup wizard

- Unlocking Jenkins
- Customizing Jenkins with plugins
- Creating the first administrator user

7 Know about User management in Jenkins

8 Authentication

- Jenkins own database user creation
- Options to enable integration with LDAP

9 Authorization

- Matrix based authorization
- Project based authorization

10 Creating jobs and automatic build settings

- What is Jenkins Pipeline?
- Why Pipeline?
- Integration with GIT
- How to enable project based authorization for a job
- Source code management while creating jobs
- Triggering automated build
- Know about post build options for jobs like notifications, trigger another build, publishing reports, etc.

11 Adding a slave node to Jenkins

12 Building Delivery Pipeline

13 Notification settings in Jenkins

14 Plugin management in Jenkins

MODULE 4: DOCKER – A CONTAINERIZATION TECHNOLOGY

1 Docker Containers Introduction

- What is a Docker
- Use case of Docker
- Platforms for Docker
- Docker vs. Virtualization Architecture

2 Docker Architecture

- Understanding the Docker components

3 Installation

- Installing Docker on Linux
- Docker commands
- Provisioning

4 Docker Hub

- Downloading Docker images by syncing with local system
- Custom configuration of Docker images
- Uploading the images in Docker Registry
- Understanding the containers
- Running commands in container
- Running multiple containers

5 Create Custom images

- Creating a custom image
- Running a container from the custom image. Publishing the custom image

6 Docker Networking

- Accessing containers
- Linking containers
- Exposing container ports
- Container Routing

7 Docker Volume

8 Docker Compose

- Installing The Docker compose
- Terminology in Docker compose
- Setup and Configure WordPress site using Docker compose

MODULE 5: KUBERNETES ADMINISTRATOR

1 Kubernetes Architecture

2 Kubernetes Installation (Master Node and Worker Node)

- Working on manual installation of Kubernetes cluster

3 POD strategy

4 Replication Controller & Deployment

5 Scalability of Application

6 Volume management

7 Networking

8 Resource Management

9 Monitoring and Security

MODULE 6:

- Nagios monitoring setup

MODULE 7:

- Prometheus with Grafana installation on CentOS 7



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THANK YOU!

Thank you for being a part of
this **learning journey**.

Your dedication today
builds the expertise of
tomorrow.



*Keep Learning.
Keep Growing.*



**LEARN.
PRACTICE.
SUCCEED.**



KEEP LEARNING

Stay curious and
keep exploring
new possibilities.



STAY FOCUSED

Consistency today
creates excellence
tomorrow.



KEEP GROWING

Every step forward
brings you closer to
your goals.



ACHIEVE MORE

Your hard work
today shapes your
future success.



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