

Capstone Projects:

Real Time Business Scenario using **DevOps**



FWebServer using Docker

Create and deploy a portable web server using Docker by containerizing the app, managing dependencies, and running it consistently.



Jenkins Remoting Project

Set up Jenkins remoting for master-agent communication to enable distributed builds in CI/CD.



CI/CD Pipeline using Azure

Demonstrate a robust CI/CD pipeline in Azure DevOps with automated build, test, and deployment.



Infrastructure as Code with Terraform

Automate cloud infrastructure provisioning (VMs, networks, storage) using Terraform scripts.



Monitoring with Prometheus & Grafana

Set up monitoring dashboards to track application performance and system health in real time.

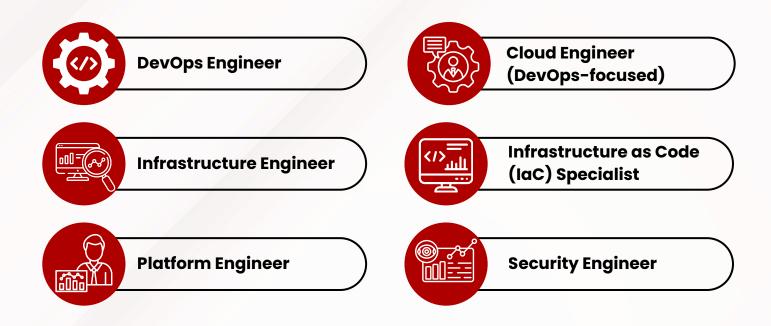


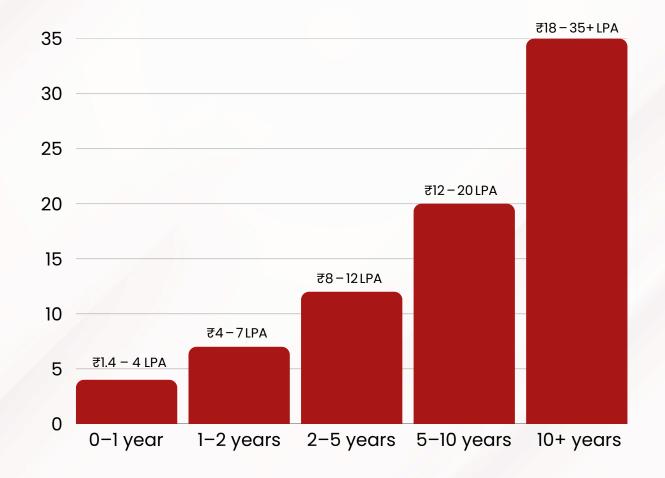
Configuration Management with Ansible

Automate server setup, software installation, and environment consistency using Ansible playbook

DevOps

Opportunities & Demand





DEVOPS COURSE SYLLABUS

Duration: 40 hrs

Section 1: Introduction to DevOps Certification

- What is DevOps?
- Why DevOps?
- Benefits of DevOps
- Overview of DevOps

Section 2: Linux and Shell Scripting

- Basics of Operating system
- Linux Versions
- Important Linux Operating Systems concept like kernel, Shell & File System structure
- Important Linux Commands for Administration
- Commands for User Management
- Commands for File Permissions

Section 3: Version Control System - Git GitHub

- Installation of DevOps Tools
- Installing the required tools Git, Jenkins, Ansible, Puppet, Docker
- Installing the Chef, Nagios, Maven
- Basics of Software Version Control
- Complete concepts in Version Control Systems
- Study about SCM, Command Line, CI tool Jenkins, SVN, CVS, Clearcase
- Real time project study in Maven Project and Jenkins

Real-time Practicals

- All Devops tools setup
- Create a git project
- Checkout a branch
- Create a file and add to git, Edit file, Commit the code
- Set up Jenkins and integrate with Git

Section 4: Docker Concepts

- Installing Docker
- Docker Image Layers
- Build Docker Images by using Docker commit Command
- Build Docker Images by Writing Dockerfile
- Push Docker Images to Docker Hub
- Docker Networking Links and Volumes
- Create Dockerized Web Applications

Real-time Practicals

- Configure a Docker
- Create an image in Docker and run it

Section 5: Automating Build and Test

- Basics about the Automating Builds Maven, Ant
- Overview of Jenkins Pipeline
- Setting up continuous Delivery Pipeline using Jenkins
- Building a continuous Delivery Pipeline Using Jenkins
- DevOps Test Automation tools and framework
- DevOps Testing Strategy

Real-time Practicals

- Create a Maven Project
- Edit pom.xml file
- Set up build delivery pipeline
- Set up notification alerts in Jenkins and Configure test plan in Jenkins

Section 6 : Continuous Integration(CI)

- Study about DevOps Continuous Integration
- DevOps Continuous Integration Tools Comparison
- DevOps Continuous Integration and Continuous Delivery
- DevOps Continuous Integration Pipeline, Jenkins, Testing
- Benefits of DevOps Continuous Integration

Real-time Practicals

 Commit code and check if Jenkins runs the build scripts and tests the code using automation script

Section 7: Containerization with Kubernetes

- Introduction to Kubernetes, the cluster architecture of Kubernetes
- creating a Kubernetes cluster
- what is YAML, creating YAML with Kubernetes deployment
- Kubernetes service, dashboard installation
- Kubernetes rolling updates, using an app with the dashboard

Section 8: Ansible

- Introduction to Ansible
- Configuration, Writing Ansible Playbooks
- Ansible based Configuration Management
- Different Roles
- Command Line usage.

Real-time Practicals

- Write Ansible playbook
- Assign different roles in configuration tool

Section 9: Terraform

- Introduction to Terraform
- Terraform Architecture and Configuration
- Terraform common commands
- Managing Terraform Resources
- Terraform State
- Terraform Project

Section 10: Nagios – Performance and Automated **Monitoring**

- Introduction of Nagios
- Nagios Setup
- Commands, Objects, notifications,
- Configure Nagios to monitor webserver, Load Balancer (HAProxy, NginX), + Project 1 & project 2

Real-time Practicals

- Perform Nagios and Netdata monitoring
- Setup Syslog and verify the logs are getting generated
- Configure HAProxy server

SKILLS AND TOOLS

Tools Covered

Jenkins



Kubernetes

Terraform

Splunk







ELK Stack

Git Hub

AWS

Prometheus

SonarQube









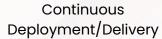


Skills Covered

Linux & Scripting

Version Control

Continuous Integration











Infrastructure as Code

Containerization

Orchestration

Cloud Platforms



Earn your Copilot Course Completion Certificate

Credo Systemz's certificate is highly recognized by 30K Global companies around the world.



WHAT OUR TRAINEE SAYS?



Libi charan

4.7 *******

I joined DevOps training at Credo Systemz. The trainer explained every concept clearly with real-time tools. Hands-on practice and assignments helped me understand better. Best institute for DevOps learners.



Srivarshini

4.2 *******

Credo Systemz is the right place for DevOps training. The trainer was knowledgeable and provided step-by-step guidance. Daily tasks and projects improved my practical knowledge in tools like Docker and Kubernetes.



Jason Israel

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The DevOps training at Credo Systemz exceeded my expectations. Trainer explained CI/CD, Docker, and Kubernetes very clearly. Hands-on labs were the best part. I strongly recommend this institute for DevOps.



Vasmitha

4.9 *******

I learned DevOps from Credo Systemz and it was very effective. The trainer explained concepts clearly and provided projects for practice. This training really boosted my confidence in automation and deployment.



Abinaya

4.0 ******

Credo Systemz offered me the best DevOps learning journey. From basics to advanced tools, everything was explained practically. Real-time projects, mock interviews, and supportive trainers made my experience very valuable.



Padmesh



DevOps training at Credo Systemz is topnotch. The trainer guided with patience, and each concept was backed by handson practice. This course helped me transition into a DevOps engineer role.

CHENNAI

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