

Containerization and Orchestration

Learn how to containerize and orchestrate applications using industry-leading tools and frameworks.

Category: Cloud · Duration: 3 days

WHO IT IS FOR

- Security engineers and system administrators
- DevOps engineers, SREs and ops teams
- Teams that want hands-on practice on real scenarios

In this course, you will gain a comprehensive understanding of containerization and orchestration concepts, including Docker, Kubernetes, and other popular tools. Through hands-on exercises and real-world examples, you will learn how to effectively deploy, manage, and scale containerized applications. Prior knowledge of Docker and basic networking concepts is recommended.

Prerequisites

Basic understanding of Docker and networking concepts.

Syllabus

- Introduction to Containerization
- Overview of Docker
- Containerizing Applications with Docker
- Docker Images and Registries
- Container Networking
- Docker Compose
- Introduction to Orchestration
- Overview of Kubernetes
- Deploying and Scaling Applications with Kubernetes
- Kubernetes Architecture
- Managing Pods and Services
- Kubernetes Networking
- Monitoring and Logging in Kubernetes
- Introduction to Other Orchestration Tools (e.g., Swarm, Mesos)

- Security Considerations in Containerization
- Practical Use Cases and Best Practices
- CI/CD and Continuous Deployment with Containers
- Managing Persistent Data with Containers
- Introduction to Cloud-native Development
- Troubleshooting and Debugging in Containerized Environments