

DevOps with Azure Course Content

1. DevOps Fundamentals
2. Version Control (Hands on)
3. Azure Core Services (Hands on)
4. Azure DevOps Services (Hands on)
5. Containers and Orchestration (Hands on)
6. Infrastructure as Code (Hands on)
7. Configuration Management
8. Monitoring, Logging and Security
9. Advanced Topics
10. Capstone Projects

DevOps Fundamentals

- DevOps Culture, SDLC, Agile, CI/CD Concepts
- Linux Administration, Shell Scripting, Networking Basics

Version Control (Hands on)

- Git: Branching, Merging, Rebasing, Pull Requests
- Azure Repos and GitHub

Azure Core Services (Hands on)

- Entra ID, Subscriptions, Resource Groups, RBAC
- Virtual Machines, Virtual Networks, NSG, Load Balancer
- Storage Accounts, Azure SQL, Cosmos DB
- App Service, Azure Functions

Azure DevOps Services (Hands on)

- Azure Boards, Repos, Pipelines, Test Plans, Artifacts
- YAML and Classic Pipelines, Agents, Service Connections
- Release Management, Environments, Approvals

Containers and Orchestration (Hands on)

- Docker: Images, Containers, Volumes, Networks, Compose
- Azure Container Registry, Azure Container Instances
- Kubernetes Architecture, Pods, Deployments, Services

- Azure Kubernetes Service (AKS), Helm Charts

Infrastructure as Code (Hands on)

- Terraform: Providers, State, Modules, Workspaces
- ARM Templates and Bicep

Configuration Management

- Ansible: Inventory, Playbooks, Roles

Monitoring, Logging and Security

- Azure Monitor, Log Analytics, Application Insights
- Prometheus and Grafana
- Key Vault, Defender for Cloud, DevSecOps Basics

Advanced Topics

- GitOps with ArgoCD, Blue-Green and Canary Deployments
- Azure Policy, Cost Management, Well-Architected Framework

Capstone Projects

- End-to-End CI/CD Pipeline on Azure, Portfolio
- Certification Guidance (AZ-900, AZ-104, AZ-400)