

Version Control with Git

- 1 Introduction to version control system and git
- 2 Introduction to GitHub
- 3 Azure DevOps
- 4 Branches, branching strategies, merging branches

Cloud Computing: Azure

- 1 Introduction to Azure
- 2 Subscriptions, Resource Groups, Role-Based Access Control (RBAC)
- 3 Azure IaaS Services (VM, Storage, Network)
- 4 Azure PaaS Services (App Services, Serverless computing, etc.)

Working with command-line shells

- 1 Bash
- 2 PowerShell
- 3 Azure CLI
- 4 Creating and managing Azure Resource with command-line shells
- 5 Introduction to Azure Automation

Continuous Integration and Deployment

- 1 Introduction to CI/CD. Importance of SDLC
- 2 Creating CI/CD pipeline in GitHub
- 3 Creating CI/CD pipeline in Azure DevOps
- 4 Deploying websites to Azure App Service
- 5 Deploying websites to Linux Virtual Machine

Infrastructure as a Service (IaaS)

- 1 Introduction to Terraform
- 2 ARM (Azure Resource Manager)
- 3 Azure Bicep

Networking

- 1 Basics of networking
- 2 Virtual Network (VPN)
- 3 Implement VNet to VNet connections
- 4 Implement VNet peering

Containers

- 1 Introduction to Docker
- 2 Dockerfile and compose files
- 3 Docker registers: docker.com and Azure Container Registry
- 4 Deploying container from registers
- 5 Container orchestrators: introduction to Kubernetes

Monitoring

- 1 Introduction to monitoring
- 2 Azure Monitoring
- 3 Implementing logging
- 4 Setting up alerts
- 5 Introduction to Application insights

Security

- 1 Introduction to security: authentication and authorization, tokens, etc.
- 2 Identity Servers: Azure Active Directory and AAD B2C
- 3 Securing storage (e.g., network security, encryption)
- 4 Securing VMs (e.g., network security)
- 5 Securing Databases (e.g., Firewall, encryption, masking)
- 6 Configuring Azure Security Center