Azure Infrastructure as Code (IaC) Workshop

Duration: 4 days

Infrastructure as code can help you quickly and confidently scale your cloud deployments. By using Bicep and Azure Resource Manager, you can automate and simplify the provisioning of infrastructure resources.

Day 1: Fundamentals of Azure Resource Manager (ARM)

- Introduction to Azure Resource Manager (ARM)
- Overview of Azure ARM Architecture
- Benefits of using ARM for Infrastructure Management
- Key Components: Resource Groups, Resources, and Deployments
- Azure ARM Template Basics
- Understanding the Azure ARM Template Schema
- Key Elements of Templates: Parameters, Variables, Resources, and
- Outputs
- Demo: Building a Basic ARM Template

Day 2: Automating Azure Deployments

- Azure with PowerShell
- Introduction to PowerShell for Azure
- Key Cmdlets for ARM Template Deployment
- Hands-On: Deploying Resources via PowerShell
- Azure with Command-Line Interface (CLI)
- Overview of Azure CLI
- Managing Azure Resources with CLI Commands
- Hands-On: Deploying Templates using Azure CLI

Day 3: Advanced IaC Approaches

- Introduction to Azure Bicep
- Overview of Azure Bicep Language
- Benefits and Key Features Compared to ARM Templates
- Hands-On: Writing and Deploying Bicep Templates
- Terraform for Azure
- Introduction to Terraform and its Use Cases
- Writing and Executing Terraform Scripts for Azure
- Hands-On: Managing Azure Resources with Terraform

Day 4: Integrating IaC with Cloud Tools

- Azure Cloud Shell

- Overview and Benefits of Using Azure Cloud Shell
- Working with PowerShell and CLI in Cloud Shell
- Hands-On: Deploying and Managing Azure Resources
- Azure DevOps for Infrastructure as Code
- Introduction to Azure DevOps for IaC
- Integrating ARM, Bicep, and Terraform with CI/CD Pipelines
- Hands-On: Creating a CI/CD Pipeline for IaC