Azure DevOps – Online Training

Azure Basics

1. Introduction to Cloud Computing
2. IaaS Vs PaaS vs SaaS and Serverless
3. Understand Azure Management Portal

Azure DevOps – Introduction

1. Azure DevOps – Overview & Components
2. Create new Organization & Projects
3. Work with Azure DevOps Repositories
4. Introduction to Azure Pipelines
5. Introduction to Azure Artifacts
6. Introduction to Azure Boards

Azure – Intro to Infrastructure as a Service (IaaS)

1. Overview of Virtual Machines
2. Create a Virtual machine using Portal
3. Deploy a Web Application to the Virtual Machine

Azure – Intro to Platform as a Service (PaaS)

1. Create and Configure App Service Plans
2. Create and Configure App Service
3. Learn Zero-down time deploying using Deployment Slots

Azure – Introduction to Serverless

1. Overview of Azure Serverless Services like Azure Functions, Logic Apps
2. Understand and create Serverless services for real-time scenarios

Introduction to Azure Storage

1. Create a Storage Account
2. Create Containers and Blobs
3. Install & Explore Azure Storage Explorer
4. Create SAS tokens and understand the benefits of SAS tokens
5. Copy Files from on prem to Azure Blob Storage using AzCopy
6. Copy Files from one Storage Account to other Storage Account

Introduction to DevOps tools

- PowerShell Basics
- Azure CLI Basics
- Azure Cloud Shell

Azure – Infrastructure as Code (IAC)

- Introduction to ARM Templates
- Understand the architecture of ARM Templates
- Create a Virtual Machine using ARM Templates
- Create an Azure App Service using ARM Templates
- Create a SQL database using ARM Templates
- A Real-time project – Build services using ARM Templates with Modular Architecture (Linked Templates)
- Introduction to Bicep – Domain Specific Language (DSL) for deploying Azure resources
- Introduction to working with Terraform on Azure

Azure Monitor (IaaS + PaaS)

1. Monitor VMs using Azure Monitor
2. Configure Log Analytics
   - Create Log Analytics workspace
   - Integrate Log Analytics workspace with Virtual Machines
   - Create Metrics
3. Monitor applications using Azure Application Insights
   - Integrate Application Insights using Asp.Net Core application
   - Understand how to troubleshoot exceptions & performance issues
   - Understand how to configure Profiler for advanced (performance) troubleshooting issues
   - Understand how co-relation works for various application dependencies
   - Learn how Application map works
4. Learn how to query & analyze logs using KQL
   - Learn how to Create a query using KQL
   - Save a query to the dashboard
   - Interpret graphs
5. Set up alerts and actions
   - Create and test alerts
   - Create action groups
   - View alerts in Azure Monitor

Azure DevOps – Continuous Integration

- Develop a Build Pipeline
- Create Build Tasks
- Configure Build Agent
- Create Environment agonistic packages

Azure DevOps – Continuous Deployment

- Create Release pipeline
- Create multiple Environments
- Understand Release Variables to configure Environment specific configurations
- Learn how to execute ARM templates for automated Infra provisioning
- Learn how to integrate Build & Release Pipelines
- Configure Automated Deployment to varous environments

Azure DevOps – Continuous Testing & Monitoring

- Learn how to integrate Unit Tests to Azure Pipelines
- Learn how to integrate Selenium Scripts to Azure Pipelines
- Learn how to integrate JMeter scripts to Azure Pipelines
- Create Annotations of Releases in Application Insights
- Learn how to monitor the health of various services
- Create Charts and Dashboards in Azure portal

Azure DevOps – Site Reliability Engineering

- Introduction to Site Reliability Engineering
- Manage the Site Reliability
- Learn how to scale various Azure Resources (IaaS, PaaS & Serverless)
- Learn troubleshooting connectivity issues in a real-time production environment

Azure Kubernetes Service

- Introduction to Docker
- Learn how to create Azure Kubernetes Service
- Basics of YAML
- Create a AKS Cluster
- Deploy a .Net core application using Azure DevOps to AKS Cluster