

# Microsoft Azure Fundamentals

## Overview

This course will provide foundational level knowledge on cloud concepts; core Azure services; and Azure management and governance features and tools.

## Course Syllabus

### CLOUD COMPUTING:

- Introduction to Microsoft Azure Fundamentals
- Introduction to cloud computing
- What is cloud computing
- Shared responsibility model
- Cloud models
- Consumption-based model
- Summary

### BENEFITS OF USING CLOUD SERVICES:

- Introduction
- Benefits of high availability and scalability in the cloud
- Benefits of reliability and predictability in the cloud
- Benefits of security and governance in the cloud
- Benefits of manageability in the cloud
- Summary

### **CLOUD SERVICE TYPES:**

- Introduction
- Infrastructure as a Service
- Platform as a Service
- Software as a Service
- Summary

### **CORE ARCHITECTURAL COMPONENTS OF AZURE:**

- Introduction
- What is Microsoft Azure
- Get started with Azure accounts
- Exercise - Explore the Learn sandbox
- Azure physical infrastructure
- Azure management infrastructure
- Exercise - Create an Azure resource
- Summary

### **AZURE COMPUTE AND NETWORKING SERVICES:**

- Introduction
- Azure virtual machines
- Create an Azure virtual machine
- Azure virtual desktop
- Azure containers
- Azure functions
- Application hosting options
- Azure virtual networking
- Exercise -Configure network access
- Azure virtual private networks
- Azure ExpressRoute
- Azure DNS
- Summary

### **AZURE STORAGE SERVICES:**

- Introduction
- Azure storage accounts
- Azure storage redundancy
- Azure storage services
- Create a storage blob
- Identify Azure data migration options
- Identify Azure file movement options
- Summary

### **AZURE IDENTITY, ACCESS, AND SECURITY:**

- Introduction
- Azure directory services
- Azure authentication methods
- Azure external identities
- Azure conditional access
- Azure role-based access control
- Zero trust model
- Defense-in-depth
- Describe Microsoft Defender for Cloud
- Summary

### **COST MANAGEMENT IN AZURE:**

- Introduction
- Factors that can affect costs in Azure
- Compare the Pricing and Total Cost of Ownership calculators
- Exercise - Estimate workload costs by using the Pricing calculator
- Exercise - Compare workload costs using the TCO calculator
- Microsoft Cost Management tool

- The purpose of tags
- Summary

### **FEATURES AND TOOLS IN AZURE FOR GOVERNANCE AND COMPLIANCE:**

- Introduction
- The purpose of Microsoft Purview
- The purpose of Azure Policy
- The purpose of resource locks
- Exercise - Configure a resource lock
- Describe the purpose of the Service Trust portal
- Summary

### **FEATURES AND TOOLS FOR MANAGING AND DEPLOYING AZURE RESOURCES:**

- Introduction
- Tools for interacting with Azure
- The purpose of Azure Arc
- Azure Resource Manager and Azure ARM templates
- Summary

### **MONITORING TOOLS IN AZURE:**

- Introduction
- The purpose of Azure Advisor
- Azure Service Health
- Azure Monitor
- Summary