AZ 900- Introduction to Cloud Infrastructure

Days: 1

Prerequisites: Basic familiarity with IT terms and concepts is recommended. Prior Azure or scripting experience is unnecessary.

Audience: IT professionals and others who are new to Azure and want to understand its core services and management tools.

Description: Build a foundation in cloud computing and learn how Microsoft Azure organizes, delivers, and manages cloud resources. Compare cloud service models and explore Azure compute, networking, storage, identity, and security. Learn how Azure tools help organizations estimate costs, apply governance policies, deploy resources, and monitor their environments. The course supports preparation for Exam AZ-900.

Course Objectives: Upon completion, students will be able to:

- Compare cloud deployment models and explain shared responsibility.
- Distinguish infrastructure, platform, and software as a service.
- Describe Azure architecture and core compute, networking, storage, and identity services.
- Identify Azure tools for cost management, governance, resource deployment, and monitoring.

OUTLINE:

LEARNING PATH 1: CLOUD CONCEPTS

Module 1: Cloud computing. Public, private, and hybrid clouds, shared responsibility, and consumption-based pricing.

Module 2: Cloud benefits. Availability, scalability, reliability, predictability, security, governance, and manageability.

Module 3: Cloud service models. Use cases for IaaS, PaaS, and SaaS.

LEARNING PATH 2: AZURE ARCHITECTURE AND SERVICES

Module 1: Azure architecture. Regions, availability zones, resources, resource groups, subscriptions, and management groups.

Module 2: Compute services. Virtual machines, containers, functions, and application hosting options.

Module 3: Networking services. Virtual networks, peering, VPN Gateway, ExpressRoute, and endpoints.

Module 4: Storage services. Storage accounts, storage types, access tiers, redundancy, and migration options.

Module 5: Identity, access, and security. Microsoft Entra ID, authentication, Conditional Access, role-based access control, Zero Trust, defense in depth, and Microsoft Defender for Cloud.

LEARNING PATH 3: AZURE MANAGEMENT AND GOVERNANCE

Module 1: Cost management. Azure pricing factors, the pricing calculator, Microsoft Cost Management, and tags.

Module 2: Governance and compliance. Azure Policy, resource locks, Microsoft Purview, and the Service Trust Portal.

Module 3: Resource management and deployment. Azure portal, Azure CLI, Azure PowerShell, Azure Arc, and Azure Resource Manager templates.

Module 4: Monitoring. Azure Advisor, Azure Service Health, and Azure Monitor.