CLOUD, DEVOPS, AND CONTAINERS

Microsoft Azure Fundamentals (AZ-900)

Level: Foundation • 2 days (expandable to 3) • Virtual, In-person

Overview

For a huge share of enterprises, Microsoft Azure is the default cloud, and AZ-900 is the standard first credential for proving you understand it. The challenge is that Azure spans hundreds of services, and fundamentals courses too often respond by racing through all of them, leaving learners with a list of names but no understanding.

This is a hands-on, foundation course. It is aligned to the AZ-900 certification, but it follows a less-but-deeper philosophy: master cloud concepts first, then the way Azure is structured, then the core services, and finally the identity, governance, and cost tools that every real Azure environment depends on. Breadth beyond that lives in the Extended Version. Every module includes a lab in the Azure portal, and each module builds on the one before.

Who Should Attend

- Professionals in any role who need a working understanding of Azure
- IT staff and developers starting their first Azure projects
- Anyone preparing for the Microsoft Azure Fundamentals (AZ-900) exam

  Learners who want a vendor-neutral grounding first should consider *Cloud Computing Essentials*.

Prerequisites

- General comfort with computers and the web
- No Azure or cloud experience required

What You Will Learn

- Explain the core cloud concepts: service models, deployment models, and the shared responsibility model
- Describe how Azure is organized: subscriptions, resource groups, regions, and availability zones
- Identify the core Azure compute, networking, storage, and database services and what each is for
- Explain how Microsoft Entra ID handles identity and access in Azure
- Apply governance and cost-management tools to keep an Azure environment controlled
- Prepare with confidence for the AZ-900 exam

Course Outline

Day one: cloud concepts and core Azure services

- Cloud Concepts
  - What cloud computing changes: elasticity, consumption pricing, and managed services
  - IaaS, PaaS, and SaaS, and public, private, and hybrid clouds
  - The shared responsibility model
  - Lab: explore the Azure portal and identify the service models behind familiar services

- How Azure Is Organized
  - Subscriptions, management groups, and resource groups
  - Regions, region pairs, and availability zones
  - Lab: create a resource group and deploy your first resource into it
- Compute and Networking
  - Virtual machines, App Service, containers, and Functions: choosing the right compute
  - Virtual networks and how traffic reaches Azure
  - Lab: deploy a small web application and reach it over the network

Day two: data, identity, and governance

- Storage and Databases
  - Azure Storage: blobs, files, and storage tiers
  - Managed databases: Azure SQL Database and Cosmos DB, and choosing between them
  - Lab: create a storage account, upload data, and control access to it
- Identity and Security
  - Microsoft Entra ID: identities, authentication, and conditional access
  - Role-based access control and least privilege
  - Defense in depth and where Azure's security tools fit
  - Lab: assign roles that give a colleague exactly the access they need and no more
- Governance, Cost, and the Exam
  - Azure Policy, resource locks, and keeping an environment compliant
  - The pricing calculator, budgets, and cost analysis
  - Mapping what you have learned to the AZ-900 domains, with a study plan
  - Lab: set a budget with alerts and work through exam-style questions

Extended Version

The three-day version keeps the same gradient and adds breadth and deeper exam preparation:

- A wider tour of Azure services: monitoring, migration, and AI services in context
- Governance at scale: management groups and Azure Policy in practice
- Deeper cost scenarios based on realistic workloads
- A capstone: design a small Azure environment end to end and defend it, followed by a full practice exam