

AZ-1007: Deploy and administer Linux virtual machines on Azure

Course Duration: 8 Hours

Course code: AZ-1007

1. Course Overview

AZ-1007-A: Deploy and administer Linux virtual machines on Azure (Azure Applied Skills) is an intermediate-level, one-day instructor-led or self-directed training. It equips learners with practical skills to deploy, configure, monitor, secure, and manage Linux VMs in Microsoft Azure.

2. What you'll learn?

By the end of this course, you will be able to:

- Deploy and configure Linux VMs in Azure, including workload configuration, and access to blob & file storage
- Add and resize VM disks (with distinction between premium and standard storage)
- Monitor VMs using Azure Monitor for host and client metrics, alerts, and logs
- Protect VMs via Azure Backup, with backup and restore operations
- Manage VMs using Azure CLI—create, start, stop, resize, automate tasks
- Implement access management using Azure roles (RBAC), managed identities, and integrate with Azure Key Vault
- Configure Azure Files and Azure File Sync for shared storage needs
- Undertake a guided, hands-on project that ties together all these skills

3. Target Audience

This course is ideal for:

- Perform Azure Administrator tasks involving Linux VM workloads
- Work in infrastructure, security, monitoring, or storage roles
- Are looking to bridge foundational knowledge to Azure associate-level skills

4. Pre-Requisites

- Prior experience using Azure Portal and Azure CLI to create resources
- Knowledge of identity management and role-based access control (RBAC) in Azure
- Background in creating and configuring Azure virtual machines
- Working familiarity with Linux-based operating systems (administration fundamentals)

5. Course content

Module 1: Introduction to Azure Virtual Machines

- Overview of Azure compute options and the shared responsibility model
- Choosing VM sizes, regions, and images for Linux workloads
- Differences between Standard and Spot VMs

Module 2: Deploy and Configure Linux VMs

- Creating Linux VMs through Azure Portal, CLI, and ARM templates
- Connecting to Linux VMs via SSH
- Configuring VM networking, inbound rules, and NSGs

Module 3: Manage Disks and Storage

- Attaching and resizing data disks
- Understanding Premium vs Standard storage

- Enabling disk encryption for security

Module 4: Monitor and Optimize Performance

- Using Azure Monitor and Metrics Explorer for VM performance
- Configuring VM Insights and Log Analytics
- Setting up alerts for proactive monitoring

Module 5: Backup and Restore Linux VMs

- Configuring Azure Backup for Linux workloads
- Performing VM restores and point-in-time recovery
- Best practices for backup schedules

Module 6: Manage VMs with Azure CLI

- Creating, starting, stopping, resizing, and deleting VMs via CLI
- Automating administrative tasks with shell scripts
- Managing SSH keys through CLI

Module 7: Implement Identity and Access Management

- Applying Role-Based Access Control (RBAC) to Linux VMs
- Configuring Managed Identities
- Integrating Azure Key Vault for credential security

Module 8: Configure Azure Files and Azure File Sync

- Creating and mounting Azure file shares on Linux VMs
- Implementing snapshots and soft delete for file recovery
- Deploying Azure File Sync for hybrid environments

Module 9: Security Best Practices for Linux VMs

- Hardening Linux configurations
- Enabling automatic OS updates
- Configuring Just-In-Time (JIT) VM access

Module 10: Guided Hands-On Project

- Deploying a Linux VM with secure storage
- Configuring monitoring, backup, and role-based access
- Testing backup/restore and optimizing performance

