

Azure Scenarios - Simple

Azure Architecture Scenarios — Simple (1-10)

Scenario 1: Single Web Server on Azure

A small retail shop wants to host their product catalog website on Azure. The site is static HTML + a small MySQL database. Expected traffic: 100 visitors/day. Budget is tight. The site must be reachable via a custom domain with HTTPS.

Keywords to google: Azure VM sizes, NSG basics, public IP, Azure DNS, Let's Encrypt

Scenario 2: File Server in the Cloud

A small accounting firm needs a central file share accessible from 5 employee laptops (Windows). They currently use a USB drive passed around the office. Total data: 200GB. They need SMB access and automatic backup.

Keywords to google: Azure Files, SMB Azure Files, Azure Backup for Files, Azure File Sync

Scenario 3: Development Environment for a Startup

A 3-person startup needs a development environment. Each developer needs a Windows VM with Visual Studio and SQL Server Express. VMs should auto-shutdown at 7 PM to save costs. No production workload.

Keywords to google: Azure VM dev/test, auto-shutdown, DevTest Labs, Azure DevOps, B-series VMs

Scenario 4: Static Website with Custom Domain

A photographer wants to host their portfolio website. It's entirely static (HTML, CSS, images). No server-side code. They want a custom domain (www.janedoe.com) with HTTPS. Budget is minimal.

Keywords to google: Azure Static Web Apps, Azure Blob static website, Azure DNS, custom domain, free SSL

Scenario 5: Backup for On-Premises File Server

A dental clinic has a Windows file server on-premises with 500GB of patient records. They need cloud backup with 30-day retention. Backup must be encrypted. They have no Azure experience.

Keywords to google: Azure Backup, MARS agent, Recovery Services vault, backup encryption, on-prem backup

Scenario 6: Email Migration from On-Prem Exchange to M365

A law firm with 50 employees runs Exchange 2016 on-premises. They want to move to Microsoft 365. All mailboxes must migrate with zero data loss. Calendar and contacts must transfer. They need hybrid coexistence during transition.

Keywords to google: Exchange Online migration, cutover vs staged vs hybrid migration, Entra Connect, MX record cutover

Scenario 7: Small Database Application

A local bakery wants to host their order management system. It's a .NET application with a SQL Server Express database. 10 concurrent users max. Budget is very tight. Needs to be accessible from the bakery and the owner's home.

Keywords to google: Azure SQL Database, Basic tier, firewall rules, Azure App Service, connection strings

Scenario 8: VPN for Remote Workers

A consulting firm has 20 employees working from home. They need secure access to the on-premises file server and internal web applications. The on-prem network has a firewall that supports IPsec VPN.

Keywords to google: Azure VPN Gateway Point-to-Site, VPN client configuration, certificate authentication, Entra ID authentication

Scenario 9: Website Monitoring and Alerts

A small e-commerce site running on a single Azure VM needs monitoring. The owner wants an email alert if the website goes down or if CPU stays above 90% for 5 minutes. No budget for premium tools.

Keywords to google: Azure Monitor, metric alerts, action groups, Application Insights, availability tests

Scenario 10: Cost Optimization Review

A startup has been using Azure for 6 months. Their bill went from \$500/month to \$2,000/month. They don't know why. They need someone to review their resources, identify waste, and recommend cost savings. They have VMs running 24/7 that are only used during business hours.

Keywords to google: Azure Cost Management, Advisor recommendations, auto-shutdown, right-sizing VMs, reserved instances

Azure Architecture Scenarios — Medium (11-30)

Scenario 11: Highly Available Web Application