AZ-304: Microsoft Azure Architect Design

Course objectives

Module 1: Design a Compute Solution

Module 2: Design a Network Solution

Module 3: Design for Migration

Module 4: Design Authentication and Authorization

Module 5: Design Governance

Module 6: Design a Solution for Databases

Module 7: Select an Appropriate Storage Account

Module 8: Design Data Integration

Module 9: Design a Solution for Logging and Monitoring

Module 10: Design a Solution for Backup and Recovery

Module 11: Design for High Availability

Module 12: Design for Cost Optimization

Module 13: Design an Application Architecture

Module 14: Design Security for Applications

Audience

This course is for IT Professionals with expertise in designing and implementing solutions running on Microsoft Azure. They should have broad knowledge of IT operations, including networking, virtualization, identity, security, business continuity, disaster recovery, data platform, budgeting, and governance. Azure Solution Architects use the Azure Portal and as they become more adept they use the Command Line Interface. Candidates must have expert-level skills in Azure administration and have experience with Azure development processes and DevOps processes.

Prerequisite

Successful Azure Solution Architects start this role with experience on operating systems, virtualization, cloud infrastructure, storage structures, and networking.

Understanding of on-premises virtualization technologies, including: VMs, virtual networking, and virtual hard disks.

Understanding of network configuration, including TCP/IP, Domain Name System (DNS), virtual private networks (VPNs), firewalls, and encryption technologies.

Understanding of Active Directory concepts, including domains, forests, domain controllers, replication, Kerberos protocol, and Lightweight Directory Access Protocol (LDAP).

Understanding of resilience and disaster recovery, including backup and restore operations.

Duration

This is **a four-day AZ-304: Microsoft Azure Architect Design** Course. The course starts at **09:30** and runs until **16:30**.

Alternate timings can be arranged upon request. The course can be held on a **date that suits you.**

Location

Our **AZ-304: Microsoft Azure Architect Design** course can be run at **our training venue** near **Liverpool Street (London)** or any preferred location in the **UK or Europe**. The training can also be **delivered Online Remotely using online training platforms**.

AZ-304: Microsoft Azure Architect Design Course Outline

Module 1: Design a Compute Solution

Recommend a Solution for Compute Provisioning

Determine Appropriate Compute Technologies

Recommend a Solution for Containers

Recommend a Solution for Automating Compute Management

Lab : Implementing Containers on Azure

Module 2: Design a Network Solution

Recommend a Solution for Network Addressing and Name Resolution

Recommend a Solution for Network Provisioning

Recommend a Solution for Network Security

Recommend a Solution for Internet Connectivity and On-Premises Networks

Recommend a Solution for Automating Network Management

Recommend a Solution for Load Balancing and Traffic Routing

Module 3: Design for Migration

Assess and On-Premises Servers and Applications for Migration

Recommend a Solution for Migrating Applications and VMs

Recommend a Solution for Migration of Databases

Module 4: Design Authentication and Authorization

Tips for Identity and Access Management

Recommend a Solution for Multi-Factor Authentication

Five Steps for Securing Identity Infrastructure

Recommend a Solution for Single-Sign On (SSO)

Recommend a Solution for a Hybrid Identity

Recommend a Solution for B2B Integration

Recommend a Hierarchical Structure for Management Groups

Lab : Managing Azure AD Authentication and Authorization

Module 5: Design Governance

Recommend a Solution for using Azure Policy

Recommend a Solution for using Azure Blueprint

Module 6: Design a Solution for Databases

Select an Appropriate Data Platform Based on Requirements

Overview of Azure Data Storage

Recommend Database Service Tier Sizing

Dynamically Scale Azure SQL Database and Azure SQL Managed Instances

Recommend a Solution for Encrypting Data at Rest, Transmission, and In Use

Module 7: Select an Appropriate Storage Account

Understanding Storage Tiers

Recommend a Storage Access Solution

Recommend Storage Management Tools

Module 8: Design Data Integration

Recommend a Data Flow

Recommend a Solution for Data Integration

Module 9: Design a Solution for Logging and Monitoring

Azure Monitoring Services

Azure Monitor

Module 10: Design a Solution for Backup and Recovery

Recommend a Recovery Solution for Hybrid and On-Premises Workloads

Design and Azure Site Recovery Solution

Recommend a Solution for Recovery in Different Regions

Recommend a Solution for Azure Backup Management

Design a Solution for Data Archiving and Retention

Module 11: Design for High Availability

Recommend a Solution for Application and Workload Redundancy

Recommend a Solution for Autoscaling

Identify Resources that Require High Availability

Identify Storage Tapes for High Availability

Recommend a Solution for Geo-Redundancy of Workloads

Module 12: Design for Cost Optimization

Recommend Solutions for Cost Management

Recommended Viewpoints for Minimizing Costs

Module 13: Design an Application Architecture

Recommend a Microservices Architecture

Recommend an Orchestration Solution for Deployment of Applications

Recommend a Solution for API Integration

Lab : Implement Azure Logic Apps Integration with Azure Event Grid

Module 14: Design Security for Applications

Security for Applications and Services

Recommend a Solution using Key Vault

Recommend Solutions using Azure AD Managed Identities