Azure Combo
(Fundamentals + Administrator)
Course Agenda

Manage Azure identities and governance:

Manage Azure AD objects

create users and groups

manage user and group properties

manage device settings perform bulk user updates

manage guest accounts

configure Azure AD Join

configure self-service password reset

NOT: Azure AD Connect; PIM

Manage role-based access control (RBAC)

create a custom role

provide access to Azure resources by assigning roles

- subscriptions
- resource groups
- resources (VM, disk, etc.)

interpret access assignments

manage multiple directories

Manage subscriptions and governance

configure Azure policies

configure resource locks

apply tags

create and manage resource groups

- move resources
- Remove RGs

manage subscriptions

configure Cost Management

configure management groups

Implement and manage storage:

Manage storage accounts

configure network access to storage accounts

create and configure storage accounts

generate shared access signature

manage access keys

implement Azure storage replication

configure Azure AD Authentication for a storage account

Manage data in Azure Storage

export from Azure job

import into Azure job

install and use Azure Storage Explorer

copy data by using AZCopy

Configure Azure files and Azure blob storage

create an Azure file share

create and configure Azure File Sync service

configure Azure blob storage

configure storage tiers for Azure blobs

Deploy and manage Azure compute resources

Configure VMs for high availability and scalability

configure high availability

deploy and configure scale sets

Automate deployment and configuration of VMs

modify the Azure Resource Manager (ARM) template

configure VHD template

deploy from template

save a deployment as an ARM template

automate configuration management by using custom script extensions

Create and configure VMs

configure Azure Disk Encryption

move VMs from one resource group to another

manage VM sizes

add data discs

configure networking

redeploy VMs

Create and configure containers

create and configure Azure Kubernetes Service (AKS)

create and configure Azure Container Instances (ACI)

NOT: selecting a container solution architecture or product; container

registry settings

Create and configure Web Apps

create and configure App Service

create and configure App Service Plans

NOT: Azure Functions; Logic Apps; Event Grid

Configure and manage virtual networking

Implement and manage virtual networking

create and configure VNET peering

configure private and public IP addresses, network routes, network interface, subnets, and virtual network

Configure name resolution

configure Azure DNS

configure custom DNS settings

configure a private or public DNS zone

Secure access to virtual networks

create security rules

associate an NSG to a subnet or network interface

evaluate effective security rules

deploy and configure Azure Firewall

deploy and configure Azure Bastion Service

NOT: Implement Application Security Groups; DDoS

Configure load balancing

configure Application Gateway

configure an internal load balancer

configure load balancing rules

configure a public load balancer troubleshoot load balancing

NOT: Traffic Manager and FrontDoor and PrivateLink

Monitor and troubleshoot virtual networking

monitor on-premises connectivity

use Network Performance Monitor

use Network Watcher

troubleshoot external networking

troubleshoot virtual network connectivity

Integrate an on-premises network with an Azure virtual network

create and configure Azure VPN Gateway

create and configure VPNs

configure ExpressRoute

configure Azure Virtual WAN

Monitor and backup Azure resources

Monitor resources by using Azure Monitor

configure and interpret metrics

- analyze metrics across subscriptions

configure Log Analytics

- implement a Log Analytics workspace
- configure diagnostic settings

query and analyze logs

- create a query
- save a query to the dashboard
- interpret graphs

set up alerts and actions

- create and test alerts to create action groups
- view alerts in Azure Monitor
- analyze alerts across subscriptions

configure Application Insights

NOT: Network monitoring

Implement backup and recovery

configure and review backup reports

perform backup and restore operations by using Azure Backup Service

create a Recovery Services Vault

- use soft delete to recover Azure VMs

create and configure a backup policy

perform site-to-site recovery by using Azure Site Recovery

NOT: SQL or HANA

Describe Cloud Concepts

Identify the benefits and considerations of using cloud services

identify the benefits of cloud computing, such as High Availability, Scalability, Elasticity, Agility, and Disaster Recovery

identify the differences between Capital Expenditure (CapEx) and Operational Expenditure (OpEx).

describe the consumption-based model.

Describe the differences between categories of cloud services

describe the shared responsibility model

describe Infrastructure-as-a-Service (IaaS),

describe Platform-as-a-Service (PaaS)

describe serverless computing

describe Software-as-a-Service (SaaS)

identify a service type based on a use case

Describe the differences between types of cloud computing

define cloud computing

describe Public cloud

describe Private cloud

describe Hybrid cloud

compare and contrast the three types of cloud computing

Describe Core Azure Services

Describe the core Azure architectural components

Describe the usage and benefits of Regions and Region Pairs

Describe the usage and benefits of Availability Zones

Describe the usage and benefits of Resource Groups

Describe the usage and benefits of Subscriptions

Describe the usage and benefits of Management Groups

Describe the usage and benefits of Azure Resource Manager

Explain Azure resources

Describe core resources available in Azure

Describe the usage and benefits of Virtual Machines, Azure App Services, Azure Container Instances (ACI), Azure Kubernetes Service (AKS), and Windows Virtual Desktop

describe the usage and benefits of Virtual Networks, VPN Gateway, Virtual Network peering, and ExpressRoute

Describe the usage and benefits of Container (Blob) Storage, Disk Storage, File Storage, and storage tiers

Describe the usage and benefits of Cosmos DB, Azure SQL Database, Azure Database for MySQL, Azure Database for PostgreSQL, and SQL Managed Instance

Describe the usage and benefits of Azure Marketplace

Describe core solutions and management tools on Azure

Describe core solutions available in Azure

describe the usage and benefits of the Internet of Things (IoT) Hub, IoT Central, and Azure Sphere

describe the usage and benefits of Azure Synapse Analytics, HDInsight, and Azure Databricks

Describe the usage and benefits of Azure Machine Learning, Cognitive Services, and Azure Bot Service

Describe the usage and benefits of serverless computing solutions that include Azure Functions and Logic Apps

Describe the usage and benefits of Azure DevOps, GitHub, GitHub Actions, and Azure DevTest Labs

Describe Azure management tools

Describe the functionality and usage of the Azure Portal, Azure PowerShell, Azure CLI, Cloud Shell, and Azure Mobile App

Describe the functionality and usage of Azure Advisor

Describe the functionality and usage of Azure Resource Manager (ARM) templates

Describe the functionality and usage of Azure Monitor

Describe the functionality and usage of Azure Service Health

Describe general security and network security features

Describe Azure security features

Describe basic features of Azure Security Center, including policy compliance, security alerts, secure score, and resource hygiene

Describe the functionality and usage of Key Vault

Describe the functionality and usage of Azure Sentinel

Describe the functionality and usage of Azure Dedicated Hosts

Describe Azure network security

Describe the concept of defense in depth

Describe the functionality and usage of Network Security Groups (NSG)

Describe the functionality and usage of Azure Firewall

Describe the functionality and usage of Azure DDoS protection

Describe identity, governance, privacy, and compliance features

Describe core Azure identity services

Explain the difference between authentication and authorization

define Azure Active Directory

describe the functionality and usage of Azure Active Directory

describe the functionality and usage of Conditional Access, Multi-Factor Authentication (MFA), and Single Sign-On (SSO)

Describe Azure governance features

describe the functionality and usage of Role-Based Access Control (RBAC)

describe the functionality and usage of resource locks

describe the functionality and usage of tags

describe the functionality and usage of Azure Policy

describe the functionality and usage of Azure Blueprints

describe the Cloud Adoption Framework for Azure

Describe privacy and compliance resources

describe the Microsoft core tenets of Security, Privacy, and Compliance

describe the purpose of the Microsoft Privacy Statement, Online Services Terms (OST), and Data Protection Amendment (DPA)

describe the purpose of the Trust Center

describe the purpose of the Azure compliance documentation

describe the purpose of Azure Sovereign Regions (Azure Government cloud services and Azure China cloud services)

Describe Azure cost management and Service Level Agreements

Describe methods for planning and managing costs

Identify factors that can affect costs (resource types, services, locations, ingress, and egress traffic)

identify factors that can reduce costs (reserved instances, reserved capacity, hybrid use benefit, spot pricing)

describe the functionality and usage of the Pricing calculator and the Total Cost of Ownership (TCO) calculator

describe the functionality and usage of Azure Cost Management

Describe Azure Service Level Agreements (SLAs) and service life cycles

describe the purpose of an Azure Service Level Agreement (SLA)

identify actions that can impact an SLA (i.e. Availability Zones)

describe the service lifecycle in Azure (Public Preview and General Availability)