Exam AZ-300: Microsoft Azure Architect Technologies

Deploy and Configure Infrastructure (25-30%)

- Analyze resource utilization and consumption
    - *May include but not limited to:* Configure diagnostic settings on resources; create baseline for resources; create and rest alerts; analyze alerts across subscription; analyze metrics across subscription; create action groups; monitor for unused resources; monitor spend; report on spend; utilize Log Search query functions; view alerts in Log Analytics
- Create and configure storage accounts
    - *May include but not limited to:* Configure network access to the storage account; create and configure storage account; generate shared access signature; install and use Azure Storage Explorer; manage access keys; monitor activity log by using Log Analytics; implement Azure storage replication
- Create and configure a Virtual Machine (VM) for Windows and Linux
    - *May include but not limited to:* Configure high availability; configure monitoring, networking, storage, and virtual machine size; deploy and configure scale sets
- Automate deployment of Virtual Machines (VMs)
    - *May include but not limited to:* Modify Azure Resource Manager (ARM) template; configure location of new VMs; configure VHD template; deploy from template; save a deployment as an ARM template; deploy Windows and Linux VMs
- Create connectivity between virtual networks
    - *May include but not limited to:* Create and configure VNET peering; create and configure VNET to VNET; verify virtual network connectivity; create virtual network gateway
- Implement and manage virtual networking
    - *May include but not limited to:* Configure private and public IP addresses, network routes, network interface, subnets, and virtual network
- Manage Azure Active Directory (AD)
    - *May include but not limited to:* Add custom domains; configure Azure AD Identity Protection, Azure AD Join, and Enterprise State Roaming; configure self-service password reset; implement conditional access policies; manage multiple directories; perform an access review
- Implement and manage hybrid identities

- *May include but not limited to:* Install and configure Azure AD Connect; configure federation and single sign-on; manage Azure AD Connect; manage password sync and writeback

Implement Workloads and Security (20-25%)

- Migrate servers to Azure
    - *May include but not limited to:* Migrate by using Azure Site Recovery (ASR); migrate using P2V; configure storage; create a backup vault; prepare source and target environments; backup and restore data; deploy Azure Site Recovery (ASR) agent; prepare virtual network
- Configure serverless computing
    - *May include but not limited to:* Create and manage objects; manage a Logic App resource; manage Azure Function app settings; manage Event Grid; manage Service Bus
- Implement application load balancing
    - *May include but not limited to:* Configure application gateway and load balancing rules; implement front end IP configurations; manage application load balancing
- Integrate on premises network with Azure virtual network
    - *May include but not limited to:* Create and configure Azure VPN Gateway; create and configure site to site VPN; configure Express Route; verify on premises connectivity; manage on-premise connectivity with Azure
- Manage role-based access control (RBAC)
    - *May include but not limited to:* Create a custom role; configure access to Azure resources by assigning roles; configure management access to Azure; troubleshoot RBAC; implement RBAC policies; assign RBAC roles
- Implement Multi-Factor Authentication (MFA)
    - *May include but not limited to:* Enable MFA for an Azure tenant; configure user accounts for MFA; configure fraud alerts; configure bypass options; configure trusted IPs; configure verification methods; manage role-based access control (RBAC); implement RBAC policies; assign RBAC Roles; create a custom role; configure access to Azure resources by assigning roles; configure management access to Azure

Create and Deploy Apps (5-10%)

- Create web apps by using PaaS
    - *May include but not limited to:* Create an Azure App Service Web App; create documentation for the API; create an App Service Web App for containers; create an App Service background task by using WebJobs; enable diagnostics logging

- Design and develop apps that run in containers
    - *May include but not limited to:* Configure diagnostic settings on resources; create a container image by using a Docker file; create an Azure Container Service (ACS/AKS); publish an image to the Azure Container Registry; implement an application that runs on an Azure Container Instance; manage container settings by using code

Implement Authentication and Secure Data (5-10%)

- Implement authentication
    - *May include but not limited to:* Implement authentication by using certificates, forms-based authentication, tokens, or Windows-integrated authentication; implement multi-factor authentication by using Azure AD; implement OAuth2 authentication; implement Managed Service Identity (MSI) Service Principal authentication
- Implement secure data solutions
    - *May include but not limited to:* Encrypt and decrypt data at rest and in transit; encrypt data with Always Encrypted; implement Azure Confidential Compute and SSL/TLS communications; create, read, update, and delete keys, secrets, and certificates by using the KeyVault API

Develop for the Cloud (20-25%)

- Configure a message-based integration architecture
    - *May include but not limited to:* Configure an app or service to send emails, Event Grid, and the Azure Relay Service; create and configure Notification Hub, Event Hub, and Service Bus; configure queries across multiple products
- Develop for autoscaling
    - *May include but not limited to:* Implement autoscaling rules and patterns (schedule, operational/system metrics, code that addresses singleton application instances); implement code that addresses transient state