Azure Interview Questions and Answers

1. Azure Resource Group

Q1: What is an Azure Resource Group?
A: An Azure Resource Group is a logical container that holds related resources for an Azure solution. It allows you to manage and organize Azure resources efficiently.

Q2: Can a resource belong to multiple resource groups?
A: No, an Azure resource can belong to only one resource group at a time.

Q3: What happens when you delete a resource group?
A: When a resource group is deleted, all the resources within it are also deleted permanently.

Q4: Can a resource group have resources in different regions?
A: Yes, a resource group can contain resources deployed in different Azure regions.

Q5: How do you move resources from one resource group to another?
A: You can use the Azure Portal, Azure PowerShell (Move-AzResource), or Azure CLI (az resource move) to move resources between resource groups.

Q6: How can you automate the creation of resource groups?
A:
- Azure CLI:
  az group create --name MyResourceGroup --location eastus

- Azure PowerShell:
  New-AzResourceGroup -Name "MyResourceGroup" -Location "East US"

- ARM Templates or Terraform.

Q7: Can you lock a resource group to prevent accidental deletion?
A: Yes, you can apply resource locks using Azure Portal, CLI, or PowerShell. Example:

```
az lock create --name "LockName" --resource-group "MyResourceGroup" --lock-type CanNotDelete
```

2. Azure Storage
Q8: What are the different types of storage in Azure?
A: Azure offers Blob Storage, File Storage, Queue Storage, Table Storage, and Disk Storage.

Q9: What is the difference between hot, cool, and archive tiers in Azure Storage?
A:
- Hot: Frequently accessed data, high cost, low latency.
- Cool: Infrequently accessed data, lower cost, slightly higher latency.
- Archive: Rarely accessed data, very low cost, high latency (retrieval takes hours).

Q10: What is Azure Storage Account Failover?
A: If a primary region becomes unavailable, failover enables switching to a secondary region (for GRS & RA-GRS accounts).

Q11: How do you enable soft delete for Azure Blob Storage?
A:

```
az storage blob service-properties delete-policy update --account-name mystorage --enable true --days-retained 7
```

3. Identity and Access Management (IAM)
Q12: What is Azure IAM?
A: Azure IAM (Identity and Access Management) allows organizations to control access to Azure resources securely.

Q13: What is Conditional Access in Azure AD?
A: Conditional Access is a security feature that enforces policies based on user location, device compliance, risk level, and other factors.

Q14: What is a service principal in Azure AD?
A: A service principal is a security identity used by applications and services to access resources securely.

4. Role-Based Access Control (RBAC)
Q15: What is RBAC in Azure?
A: RBAC is a system that allows administrators to grant users specific permissions based on predefined roles.

Q16: What are the three main roles in Azure RBAC?
A: Owner, Contributor, and Reader.

Q17: How do you check RBAC role assignments for a user?
A:
- Azure CLI:
  az role assignment list --assignee user@domain.com --output table

- PowerShell:
  Get-AzRoleAssignment -SignInName "user@domain.com"

Q18: How do you remove an RBAC role assignment in Azure?
A:
- CLI:
   az role assignment delete --assignee user@domain.com --role "Reader"

- PowerShell:
   Remove-AzRoleAssignment -SignInName "user@domain.com" -RoleDefinitionName "Reader"

5. Azure CLI & PowerShell
Q19: How do you create a resource group using Azure CLI?
A:
  az group create --name MyResourceGroup --location eastus

Q20: How do you start an Azure VM using PowerShell?
A:
   Start-AzVM -ResourceGroupName "MyResourceGroup" -Name

"MyVM"

6. REST API

Q21: How do you make an authenticated request to Azure REST API?

A:

1. Get an OAuth token:

```
az account get-access-token --resource https://management.azure.com
```

2. Use it in API requests:

```
curl -X GET -H "Authorization: Bearer <TOKEN>" "https://management.azure.com/subscriptions?api-version=2021-04-01"
```

7. Azure Hierarchy

Q22: What is the Azure management hierarchy?

A: Management groups -> Subscriptions -> Resource Groups -> Resources.

Q23: How do you move a subscription to another management group?

A: You can use the Azure Portal or CLI:

```
az account management-group subscription move --subscription-id <SUBSCRIPTION_ID> --destination-group-id <MG_ID>
```

Q24: What is an Azure Landing Zone?

A: A landing zone is a predefined environment in Azure that implements governance, security, and best practices for workloads.