



1 Resource Group (RG)

What is Resource Group?

“Resource Group is a logical container in Azure where we group related resources like VMs, VNet, Storage, NSG etc.”

Why we use RG?

- Easy management
- Single point for **RBAC**
- Cost tracking
- Delete RG → all resources delete

2 Storage Account

What is Storage Account?

“Storage Account provides scalable, durable and secure storage for blobs, files, queues and tables.”

Storage Types

Type	Use
Blob Storage	Images, logs, backups
File Storage	File share (like NFS/SMB)
Queue Storage	Messaging
Table Storage	NoSQL key-value

Account Tier Types

Performance Tier

- **Standard** → HDD based, cheap
- **Premium** → SSD based, high IOPS

Access Tier (Blob)

- **Hot** → frequently accessed
- **Cool** → infrequent
- **Archive** → long-term backup

Soft Delete & Versioning

“Soft delete and versioning protect data from accidental deletion and overwrite.”

Soft Delete

Accidentally delete ho jaye to recovery possible for X days

Versioning

File ka previous version store hota hai (overwrite protection)

3 Virtual Network (VNet)

What is VNet?

“VNet is a private network in Azure where we deploy VMs and services securely.”

Features

- Private IP
- Subnets
- NSG, Firewall
- Peering support

4 Subnet & NSG

Subnet

“Subnet is a smaller network inside VNet used to isolate workloads.”

Example:

- Web subnet
- App subnet
- DB subnet

Network Security Group (NSG)

“NSG controls inbound and outbound traffic using security rules.”

Rules Based On

- Source IP
- Destination IP
- Port
- Protocol
- Allow / Deny

Where NSG applied?

- Subnet level
- NIC level

Interview Line

“NSG acts as a virtual firewall at network level.”

5 Virtual Machine (VM)

VM Image

“VM Image defines the OS of the VM.”

Examples

- Windows Server
- Ubuntu
- RHEL
- Custom image

VM Size

“VM Size defines CPU, RAM and network capacity.”

Example

- B-series → low cost
- D-series → general purpose
- E-series → memory optimized

Disk Types

Disk	Use
OS Disk	Operating system
Data Disk	Application data
Temp Disk	Temporary storage

Disk Types

- Standard HDD
- Standard SSD
- Premium SSD
- Ultra Disk

Availability Zone

“Availability Zone places VM in physically separate data centers for high availability.”

✓ Protects from data center failure

✓ SLA 99.99%

Availability Set (FD & UD)

“Availability Set ensures VMs are not impacted together during hardware or maintenance failures.”

Fault Domain (FD)

Protects from hardware/rack failure

Update Domain (UD)

Protects from planned maintenance restart

RDP & SSH

RDP

- Windows VM
- Port **3389**

SSH

- Linux VM
- Port **22**

Security Best Practice

- NSG allow limited IP
- Use Bastion
- Disable public IP if possible