

Azure Cloud – Syllabus

Course Duration: 19 hours

Course Summary:

1. Basics of Cloud computing – 1 hour
2. Basics of Azure – 1 hour
3. Compute Services – 2 hours
4. Storage services – 2 hours
5. Networking services – 5 hours
6. Integration services – 1 hour
7. IAM services – 1 hour
8. Azure Resource Manager – 2 hours
9. Databases – 1 hour
10. Container services – 1 hour
11. Azure Backup – 1 hour
12. Cost Management – 1 hour

01 BASICS OF CLOUD COMPUTING:

- What is cloud computing?
- Shared responsibility model
- What is serverless?
- Advantages
 - Scalability
 - High Availability
 - Reliability
 - Manageability
- Service models (IaaS, PaaS, SaaS)
- Deployment models (Public, Private, Hybrid)

02 BASICS OF AZURE:

- Azure architecture
 - Azure regions, region pairs
 - Availability Zone
 - Data centre
 - Geography
- Resource management and hierarchy
 - Resources and Resource Group
 - Management Groups
 - Subscriptions
- Azure Portal – Overview

03 COMPUTE SERVICES

Virtual Machine

- Configuration options
- Workload types
- Pricing plan
- Connectivity options
- Azure Compute Gallery

Virtual Machine Scale Set

- Auto Scaling
- Load balancing
- Health Check
- Availability Set

04 STORAGE SERVICES

- Types of data
- Storage Account
 - Access configuration
 - Redundancy & availability
 - Encryption
 - Network configuration
- Storage types
 - Blob Storage
 - Azure Files
 - Storage Queues
 - Table Storage
- Blob Storage features
 - Containers
 - Blobs
 - Access permissions
 - Storage tiers
 - Life cycle management
 - Storage Explorer application
- Storage Explorer application

05 NETWORKING SERVICES

Connectivity Services

- Virtual network
- Subnet

- Virtual network peering
- VPN Gateway
- ExpressRoute
- Virtual WAN
- NAT Gateway
- Azure DNS
- Azure Bastion

Application Delivery Services

- Load Balancer
- Application Gateway
- Traffic Manager
- Azure Front Door
- Azure CDN

Application Protection services

- DDoS protection
- Azure Firewall
- Azure Private Link
- Web Application Firewall
- Network Security Group
- Application Security Group
- Network Service Endpoints

Network Monitoring Services

- Network Watcher
- Azure Monitor

06 INTEGRATION SERVICES

- Service Bus
- Event Grid
- Logic Apps

07 IDENTITY & ACCESS MANAGEMENT

- Entra ID authentication
- External identities
- User management
- Service Principals
- Managed Identity
- Role Based Access Control (RBAC)
- AD Tenant
- Custom Domain
- Zero Trust

08 AZURE RESOURCE MANAGER

- Azure CLI
- Azure Cloud Shell
- Infrastructure as Code
- JSON basics
- ARM template basics
- Create templates for Azure resources
- Deploy templates
- Download ARM template from Portal

09 DATABASES

- Azure SQL DB
- Azure Cosmos DB

10 CONTAINER SERVICES

- Azure Container Registry
- Azure Container Instances

11 AZURE BACKUP

- Azure Backup features
- Azure Site Recovery

12 COST MANAGEMENT

- Pricing calculator
- TCO Calculator
- Budget
- Cost alerts