

**Microsoft Azure
Admin (IaaS/PaaS) / DevOps
(Git-azure devops - jenkins - docker)**

1. Introduction to Cloud

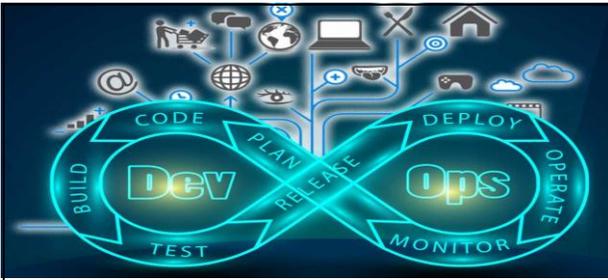
- Cloud technology overview
- Why Businesses adopting Cloud?
- How the project we are dealing with is embracing Cloud
- Azure Global footprint
- Cloud terminologies
- Learning approach

2. Managing Azure Subscriptions, Resource Groups and IAM

- Azure Portal
- Azure Services
- Resource Groups
- Azure Resource Manager(ARM)
- Azure Resource Lock
- ARM Templates
- Organizing Azure Resources
- Users/Groups/Roles
- Azure Subscriptions
- Azure Billing

3. Azure SDKs and Command- line tools

- Azure PowerShell
- Azure CLI
- Azure SDKs



4. Azure Virtual Networks and Network Security

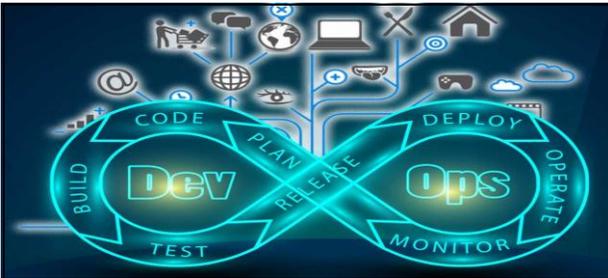
- Introduction to Azure Virtual Networks
- IP Addresses – Public and Private
- Classless Inter-domain Routing(CIDR)
- Subnets
- Network Interface Cards(NICs)
- Network Security Groups(NSGs)
- Network Security Group Rules
- Virtual Network Service End points
- Service Endpoint Policies
- Azure Load Balancer
- Azure DNS
- Plan and Design Azure Virtual Networks

5. Azure Virtual Machines (IaaS)

- Azure Virtual Machines
- Create a Custom Image of AzureVM
- Virtual Machine Extensions
- Configuration Management using PowerShell DSC
(Desired State Configuration)

6. Azure App Services (PaaS)

- Introduction to AppService
- Azure Service Plans
- Implementing and maintaining WebApps
- Apps Service Environments
- Introduction to Database Services
- Implementing and maintaining Azure SQLServer / Database



7. Azure Connectivity

- Hybrid (On-Premise network to Azure)
- Cloud (Vnet-to-Vnet)
- VPN Gateway
- Site-2-SiteVPN
- Point-2-SiteVPN
- Express Route

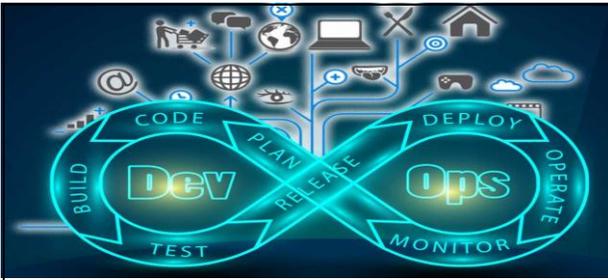
8. Azure Storage Services

- Azure Storage
- Storage Account
- Azure Storage Replication
- Azure Storage Explorer
- Shared Access Signatures(SAS)
- Attach a Storage Account using SAS
- Azure Blob Storage
- Azure File Storage
- Azure Queue Storage
- Azure Table Storage

9. Azure DevOps

- What is DevOps?
- DevOps Cycle
- DevOps tools
- Version Control with GIT
- What is Azure DevOps/VSTS?
- Compare Jenkins with Azure DevOps
- Azure DevOps pipelines
- CI / CD configuration

* note: Emphasis is more on Azure DevOps / VSTS rather than other DevOps tools.



10. Infrastructure as Code with Terraform

- Introduction to Terraform
- Using the Azure RM Provider
- Deploying a Virtual Network
- Creating Multiple Providers
- Azure Storage Setup
- Migrating Remote State

11. Using Azure DevOps for Terraform deployments

- Using Azure DevOps Repos for Terraform Scripts
- Using Azure DevOps Pipelines
- Deploying multiple workspaces (Dev, QA and Prod)
- Using ARM Template as a Data Source for Terraform
- Deploying the ARM Template Configuration

12. Containers on Azure

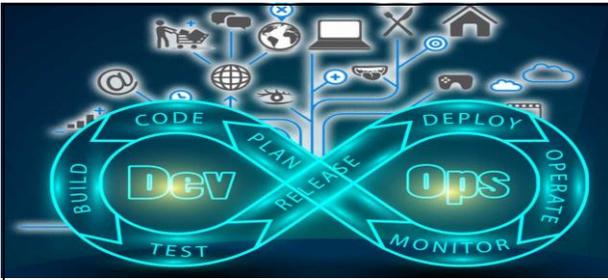
- Docker basics
- Containers in Azure
- Running Containers Locally
- Creating Docker files
- Working with Azure Container Instances (ACI)

13. Running Containers on Web App for Containers

- Azure App Service Overview
- Running Docker image on Web App for Containers
- Configuring Continuous Delivery with ACR and Swapping Slots

14. Planning and Implementing High Availability and Performance

- VM Scale sets (IaaS)
- VM Availability sets (IaaS)
- WebApp Auto-Scale (PaaS)



- SQLDb geo-replication (PaaS)
- Azure Load Balancer (IaaS)
- Traffic Manager
- CDN
- Storage
- Network

15. Managing Security & Identity for Azure Solutions

- SSLCerts
- Application Gateway
- Key Vault
- Azure DDoS
- Vnet Firewalls
- Azure Active Directory

16. Monitoring

- Azure Monitor
- Azure Application Insights
- Log Analytics
- Creating Dashboard(s)

17. Automating Azure Solutions

- Azure Automation
- Web Jobs
- Scheduler

18. Azure Serverless

- Azure Functions
- Azure Logic Apps

19. How different / same is AWS from Azure

- AWS Global footprint
- AWS offerings
- Equivalent services b/w Azure & AWS