

## Implementing Microsoft Azure Infrastructure Solutions

This, Microsoft Azure training is targeted for ANYONE who wants to move their current skillset to Microsoft Azure cloud taking the benefit of unlimited computing, storing and networking power. The Microsoft Azure course will enable you to design, build, maintain and monitor robust and scalable cloud solutions and most important you will start thinking BIG. This course also focuses on the architectural considerations and decisions necessary when building a highly available solution in the cloud. Teaching methodology is pretty simple, for every topic. It all begins with in-depth understanding of concepts followed by practical demos of how the feature can be incorporated in real-time situations.

### Prerequisite:

- MS Azure Cloud Computing Architecture requires a strong conceptual foundation in multiple computing, software development, and IT concepts and skills.
- Understand how modern applications—especially web-hosted applications—are built, and the tools and methods used to manage development.
- Conceptual understanding of common database technologies and solutions, including: relational, NoSQL, and distributed frameworks.
- Understand the design philosophies, architecture, and operation of modern data centers, including: hardware, software, infrastructure, processes (change management), connectivity (backbones and peering), offsite backup services, scalability, availability, durability, and elasticity.
- Understand typical networking devices, protocols, and services, know how to configure IP settings on common operating systems and devices, understand and apply Classless Inter-Domain Routing (CIDR) addressing, explain how TCP sessions are established and maintained, describe common network appliances and their functions.
- Understand common methods used to secure data centers, including: access control and identity management, cryptography algorithms and how they're applied, PKI to create trusted relationships, securing data in transit and at rest.
- Install and manage operating systems manually or unattended, manage storage by partitioning disks and formatting and mounting/attaching volumes, install applications, manually and via packaged deployments, manage system security by administering users and groups, assigning permissions to resources, and configuring personal firewalls, understand distributed systems concepts including fault tolerance, high availability, configuration management, and automation.
- Understand common storage concepts and solutions related to servers and application environments.

## Syllabus

- **Introduction to Cloud Computing:**  
Legacy Datacenters and Software Defined Datacenters. IaaS, PaaS and SaaS.
- **Introduction to Microsoft Azure Platform.:**  
Account Setup, Introduction to ARM Portal, Subscriptions, Resource Group, General Settings.
- **Implementing Networking in Azure Infrastructure:**  
Virtual Networks, Subnets, Gateway Subnet, Peering, Virtual Network Gateway, Site to Site VPN, Point to Site VPN, Network Security Groups, DNS Zones, Pricing.
- **Implementing Virtual Machines in Azure Infrastructure.:**  
Linux and Windows Virtual Machines, BYOL, Azure Market Place, Snapshots, Hard Disks, Networking, Security, Monitoring, VM Size and Pricing,
- **Implementing Load Balancing in Azure Infrastructure:**  
Availability Sets, Update Domain, Fault Domain, Azure Load Balancer, Backend Pools, Health Probes, Load Balancing Rules.
- **Implementing Azure Storage:**  
Storage Accounts, Pricing, BLOB Storage, Azure Files, Azure Tables, Azure Queues, Azure Storage Explorer, Replication, Backup.
- **Implementing Database in Azure Infrastructure:**  
Azure SQL Database, Replica, Database Connections, Pricing.
- **Publishing Applications in Azure Infrastructure:**  
App Services, Git Repository, Application Hosting, Clones, Application Swapping, Pricing.
- **Managing Azure Portal using Powershell:**  
Installing Azure Powershell, Connecting to Azure Subscription, Provisioning Networks and Virtual Machines.
- **Managing Azure Active Directory:**  
Adding and Verifying Custom Domains, Azure AD Connect, synchronizing users and groups from Windows AD to Azure AD, Configuring Privileges, deleting synched users and groups from Azure AD, Connecting devices to Azure AD Domain.