

Microsoft Azure Syllabus

Cloud Computing Introduction

- What is Cloud Computing
- Cloud Characteristics
- Cloud Computing Service Models
- Deployment Models in Cloud Computing
- Advantages and Disadvantages of Cloud Computing

Getting Starting with Azure

- Introduction to Azure
- Azure Hosting Models
- Azure Services
- Subscribing to Microsoft Azure
- Azure Portals
- Azure Resource Group
- Installing Microsoft Azure SDK

Azure App Services - Web Apps

- Introduction
- App Types
- Deploying Web App directly from Visual Studio.
- Automate deployment from Dropbox
- Continuous Delivery using Visual Studio Team Service
- Scaling a Web Apps
- Traffic Manager
- Application Settings Configuration
- Understanding Deployment Slots
- Configure a custom domain name
- Enable SSL for your custom domain
- Monitoring, Debugging and Diagnosis

Windows Azure SQL Database

- Introduction/Overview.
- Comparing SQL Azure Database to Azure / On-Premise SQL Server.
- Creating and Using SQL Server and SQL Database.

- Azure SQL Database Tools.
- Using Azure SQL Database with EF Code First.
- Migrating on premise database to SQL Azure.
- Planning the Deployment
- Elastic Storage.
- Monitoring Azure SQL Database
- Configure SQL Database Auditing
- Manage Business Continuity
- Azure SQL Database vs SQL Server in IaaS VM

DocumentDB Service

- Understanding DocumentDB database Schema
- Creating and Saving Documents
- Reading Documents

Azure Storage

- About Azure Storage
- C# / MS.NET Azure Storage SDK
 - Working with Blob Storage
 - Working with Tables Storage
 - Working with Queues Storage
 - Working with Files Storage
- REST API
 - Working with Storage Tables
 - Working with Azure Queues

Azure Web Jobs

- Introduction
- Developing and Hosting Web Jobs Application
- Azure WebJobs SDK
- Sample Application including WebApps and WebJobs.

App Service – Mobile Apps

- Mobile Apps Introduction
- Creating Server and Client Projects

- Working with Easy tables using Azure Portal
- Developing Windows 8 Client Application
- Mobile App Authentication
 - Facebook Authentication
 - Azure Active Directory Authentication
- Enabling Offline Sync
- Implementing Push Notification

App Service - API Apps

- Introduction
- Creating an API App
- Deploying an API App
- Consuming an API App
- Using API App in Logic App

Azure App Service – Logic Apps

- Introduction
- Creating a Simple Logic App
- Handling array of Items using for-each and condition
- Understanding Triggers and Actions
- Using Custom API App in Logic App

Azure Cloud Service

- What is Cloud Service
- Cloud Service vs App Service
- Understand Cloud Service Roles
- Developing Cloud Service Application with Web Role
- Deploying Cloud Service Application
- Production and Staging Slots
- Using Azure Database in Cloud Service
- Adding Worker Role to the Solution.
- Delete deployments and a cloud service
- Configure application for SSL
- Configure Roles for Remote Desktop Login
- Running Multiple Websites

- Scaling a Cloud Service
- Debugging an Azure Cloud Service
- Transient Fault Handling
- To Configure and Run Startup Tasks for a Cloud Service
- Enable Communication for Role Instances in Azure
- Using the .NET SDK to access an endpoint.
- Network traffic rules to control role communication

Managing Azure with Windows PowerShell

- Installing the required modules
- Login to Azure Portal
- Creating Resource Group
- Managing Storage Accounts using PowerShell
- Understanding and Working with ARM Templates

Azure Service Bus

- Service Bus Basics
- Hosting WCF Service in Azure
- Relayed Messaging
- Service Bus Queues
- Topics and Subscriptions
- Handling Sessions
- Handling Transactions

Azure Media Service

- What is Media Services
- Media Service in Azure Portal
 - Create an Azure Media Service Account
 - Upload and Encode Video/Audio
 - Publish and Play Content
- Media Services Development with .NET
 - Uploading Media File Programmatically
 - Uploading .WMV Encoding to MP4 Format

Azure Virtual Networks

- Overview of Azure Networking
- Virtual Network Benefits
- Understanding Network Resources
- Create a VNet using Azure Portal
- Create a Subnet
- Create a Network Security Group
- Create Network Interface Card and PublicIP
- Understanding and Using Azure DNS
- Using PowerShell Commands

Azure IAAS Virtual Machine

- Introduction
- Comparing VM with Web Apps and Cloud Services
- Create a Windows Virtual Machine using Portal / PowerShell
- Understanding and Capture VM Images
- Deploy a New VM Instance from the captured Image
- Deploy popular application frameworks by using Azure Resource Manager templates
- Understanding and Creating Availability Sets.
- Load Balancing between multiple Virtual machines

Redis Caching

- Caching Overview
- What is Redis Cache
- Creating a Redis Cache
- Developing Redis Cache Client
- Controlling Expiration

Azure Active Directory

- Azure AD Introduction
- Relationship between AD DS and Azure AD
- Managing Active Directories
- Adding a custom domain name to Azure AD
- Managing Users, Groups and Devices
- Adding Co-Administrators for a Subscription
- Configuring Role Based Access Control

- Integrating On-Premise AD Identities with Azure AD
- Integrating Gallery Applications with Azure AD
- Integrating On-Premise Applications with Azure AD
- Implementing Azure AD B2B Collaboration
- Implementing Azure AD B2C Collaboration