

# Microsoft Azure Admin 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 Started with Azure and Installation process**

- Introduction to Azure
- Difference between Amazon and Microsoft Cloud
- Azure Hosting Models

- Azure Services
- Subscribing to Microsoft Azure
- Azure Portals
- Installing Microsoft Azure SDK

### **Resource Group**

- What is Resource Group
- Use of Resource Group
- Create a resource group
- Assign Resources to resource group
- Transfer resource from one resource group to another
- Delete a resource group

### **Global Infrastructure**

- What is Region
- How to select Region in Azure

### **Azure Resource Manager**

What is ARM

- What is its use?
- Advantages of ARM
- What is Azure Resource Group
- Advantage of ARG

### **Azure App Service Plan**

- What is App Service Plan?
- Why we need it?
- Create an App Service Plan
- Delete an App Service Plan
- Up Scale and Down scale App service Plan

### **Billing Process in Azure**

- What is billing Process
- How bill will be generated
- How resources are charged
- Cost Analysis
- Cost Alert
- Budgets

## **Azure App Services - Web**

### • Introduction

- What is App Service?
- What is App service Type?
- What is WebApp
- Deploy Web application in Web app
- Web Application Setting
- What is deployment slots
- How to create it
- How to swap between different environment
- Benefit of Web App
  
- App Types
- Deploying Web App directly from Visual Studio.
- Scaling a Web Apps
- Publish setting in Web App

### **SCM in Azure**

- What Is SCM
- Why SCM
- What is the Benefits of SCM

### **Azure Application Insights**

- Introduction
- Application insight architecture
- Check the performance using Application Insight
- Integrate this with web application
- Important feature of application insights

### **CDN in Azure(30 min)**

- What is CDN?
- How to Implement CDN
- How it works
- Why CDN?

### **Windows Azure SQL**

- Introduction/Overview.
- Deployment models in SQL Azure
- Creating and Using SQL Server and SQL Database.
- Add Database to a server
- Import database

- Export database
- User creation in Azure SQL
- Difference between SQL Azure and SQL Server
- Azure SQL Database Tools.
- Elastic Storage.
- Azure SQL Database vs On-Premise SQL Server
- Access SQL Azure DB from Visual studio

## **Azure Storage**

- About Azure Storage
- C# / MS.NET Azure Storage SDK
- Working with Blob Storage Using Visual Studio
  - What is Blob and its Purpose
  - Creating a blob
  - Storing data to a blob
  - Retrieve data from a blob
  - Delete a blob
- Working with Tables Storage Using Visual Studio
  - What is Table and its Purpose
  - Creating a table
  - Storing data to a table
  - Retrieve data from a table
  - Delete a table
- Working with Queues Storage Using Visual Studio
  - What is Queue and its Purpose
  - Creating a Queue
  - Storing data to a Queue
  - Retrieve data from a Queue
  - Delete a Queue
- Working with Files Storage
  - What is file storage
  - How its different from other storage
  - How we can store and transfer file using file storage

## **Azure App Service – Logic Apps**

- Introduction
- Creating a Simple Logic App
- Understanding Triggers and Actions
- Using Custom API App in Logic
- How logic app works?

## Managing Azure with Windows PowerShell

- Installing the required modules
- Login to Azure Portal
- Declaring variable and assign to it
- Creating Resource Group
- Deleting resource group
- Creating Storage account
- Deleting storage account
- Conditional statement in Azure power-shell
- Implement the conditional statement

## App Service - API Apps

- Introduction
- Creating an API App
- Deploying an API App

## Azure Virtual Networks

- Overview of Azure Virtual Networking
- Components of Virtual Network
  - Create Address Space/IP Address
  - Create Subnet
  - Understand subnet mask
  - Benefits of Subnet
  - D-Dos protection
  - Create Service End point
  - Why we need Service End point
  - Azure Firewall
- Create a V-Net using Azure Portal
- Why we need virtual network?
- Create a firewall setting
- Setup Network Security Group
- Create a Public IP Address
- Create Network Interface Card

### Virtual Machine

- Create a Virtual Machine
- Configure static IP Address while creating VM
- What is load balancer
- Configure internal load balancer

- Configure External Load balancer
- Understanding and Creating Availability Sets
- Azure Traffic Manager
- Point-to-Site Network
- Site-to-Site Network
- ExpressRoute Solution

### **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
- Configuring Role Based Access Control
- Synchronizing On-Premise AD Identities with Azure AD
- Using Single Sign-On 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

### **Azure Security**

- Introduction to Azure Security
- Why Azure security
- What is Access Control (IAM)?
- Role Management in Azure