



Microsoft Azure AZ-303

Microsoft Azure AZ-303 Curriculum

Introduction to Microsoft Azure and Its Services

Learning Objective: In this module, you will learn about the Creation of a Free Tier Azure Account, accessing Azure Services through Azure Portal and Azure Storage Service. You will gain knowledge of ARM Templates and learn to use them for deploying Azure resources.

Topics:

- Azure Subscriptions
- Resources
- Azure Free Tiers Accounts Azure
- Resource manager
- Azure Resource Manager Template
- Azure Storage
- Types of Azure Storage

Hands –On :

- Create a free tier azure
- Create a web app service using azure Portal
- Crear and deploy ARM templates
- Manage azure Storage accounts using Storage Explorer
- Manage Azure Cost and Billing Service

Azure Virtual Machines and Networking

Learning Objective: In this module, you will learn to deploy and manage Azure Virtual Machines. You will learn to create and deploy an Azure Storage account, Azure Blobs and Azure Managed Disks. You will learn about Azure Virtual Networks and all its related concepts like NIC, NSG, Subnets, and more.

Topics:

- Azure Resource Manager Virtual Machine
- Virtual Machines in ARM Template
- Overview of Azure Virtual Machine
- Azure Managed Disks
- Azure Blob Storage
- Networking in Azure Subnets, NIC, NSG, IP Addresses, DNS



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Hands-On:

- Create Windows and LINUX Virtual Machines
- Create BLOB Storage using Azure Portal
- Create VM with Storage Account and Managed Disks
- Configure Azure Virtual Network

Azure VMSS and Availability Zones

Learning Objective: In this module, you learn about Azure Availability Sets and its features. You will also learn about various Availability Zones and Virtual Machine Scale Sets, Azure Load Balancer and Azure Application Gateway.

Topics:

- Resiliency
- Azure Availability Sets
- Azure Availability Zone
- Autoscaling
- Virtual Machine Scale Set
- Fault Domain
- Update Domain
- Load Balancer
- Application Gateway
- Azure Disk Encryption

Hands-On:

- Create a Virtual Machine Scale Set
- Configure VMSS and add custom usage alerts
- Configure VM for Redundancy
- Create Application Gateway

Azure App Services and Its Features

Learning Objective: This module deals with the aspects such as Deploying and Managing Web Apps, App Service Security, and Azure App Service Plan. You will learn to create, deploy and configure Function App and Logic App.

Topics:

- Azure App Service Web Apps
- App Service Security
- Serverless Computing Concepts
- Function Apps
- Azure Event Grid
- Azure Service Bus



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Azure App Service Logic App
Using Shell Commands to create Web App
Background Tasks
Swagger tool

Hands-On:

Create an App Service Plan
Create a Web App Instance
Use shell commands to create an App
Service Web App

Advanced Azure Hybrid Connectivity and Site Recovery

Learning Objective: This module deals with the Azure Hybrid Connectivity and its related concepts. You will also implement VNet Peering, P2S and S2S connectivity. You will also learn about VPN Gateway, ExpressRoute and BGP Protocol.

Topics:

Hybrid Connectivity
VNet S2S VPN
VNet Peering
Service Chaining
Azure VPN Gateway
Policy Based Gateway
Route Based Gateway
Swagger tool
Gateway Connections
Express Route
VNet Routing
User Defined Route
Border Gateway Protocol

Hands-On:

Create a Virtual Network Gateway
Design User Defined Routes
Migrate On-Premise Machines to Azure using Azure Site Recovery

Azure Storage Solution and Design Patterns

Learning Objective: This module deals with the aspects such as Azure Architecture Center, Cloud design patterns, competing consumers pattern, Cache-aside pattern. You will learn about Azure Storage Service and Database features.



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Topics:

- Azure Architecture Center
- Cloud design patterns
- Cache-aside pattern
- Sharding Pattern
- Azure SQL DB
- Azure Elastic Pool
- Azure Data Lakes
- Azure Data Factory
- Azure Cosmos DB

Hands-On:

- Create and Deploy Azure Data Lake
- Create and Deploy Azure Cosmos DB

Azure Kubernetes Service

Learning Objective: This module provides an in-depth knowledge of Azure Service Fabric as a distributed systems platform that makes it easy to package, deploy, and manage scalable and reliable microservices and containers. You will also explore Kubernetes Service (AKS) in Azure.

Topics:

- Application Environment Components
- Docker
- DockerFile
- Docker Image
- Azure Container Registry
- Azure Container Instance
- Orchestration
- Azure Kubernetes Service
- Diagnostics Logs

Hands-On:

- Create and Deploy Docker Image from DockerFile
- Deploy an Application in ACI
- Deploy an Application in AKS

Azure Active Directory and Role Based Access Control

Learning Objective: This module deals with aspects such as Access Control and RBAC. You will learn about implementing authentication and authorization in applications. Also, you will learn to conceptualize the data security using End-to-end encryption, Azure confidential computing, Azure Key Vault, SSL and TLS communications.



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Topics:

- Access Control
- Role Based Access Control
- Authentication in applications (certificates, Azure AD, Azure AD Connect, to Multi-Factor Authentication (MFA)
- Claims-based authorization
- Role-based access control (RBAC) authorization
- End-to-end encryption
- Azure confidential computing
- SSL and TLS communications
- Azure Key Vault
- Configure Fraud alerts
- Bypass option, trusted IPs
- Managed Service Identity
- Service Principal authentication

Hands-On:

- Implement authentication using certificates, Azure AD, Azure AD Connect, and tokens
- Implement Multi-Factor Authentication (MFA)
- Implement Claims-based authorization
- Implement RBAC authorization
- Implement secure data for end-to-end encryption
- Implement secure data for implementing SSL and TLS communications.
- Use Azure Key Vault to manage cryptographic keys

Azure Messaging Service (Events, Hubs, Queue and Bus)

Learning Objective: In this module, you will learn to configure a message-based integration architecture, develop a methodology for Asynchronous Processing, and create apps for Autoscaling .

Topics:

- Azure Messaging Service
- Azure Service Bus
- Azure Events Hub
- Azure Events Grid
- Azure Notifications Hub
- Auto Scale Ruling in Azure
- Transient Fault Handling



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Hands-On:

- Create a Service Bus Queue
- Deploy Service Bus Topics and Subscriptions
- Design and Implement Azure Service Bus
- Enable Auto Scale based on CPU Metrics Or Schedule
- Implement Multi-Factor Authentication (MFA)

Azure Monitoring and Insights Service

Learning Objective: In this module you will learn about Monitoring Azure Services. You will learn about Azure alerts, metrics services. You will also get an overview on Azure Log analytics, App Insights service, Azure Activity Log and Azure Service Health.

Topics:

- Azure Monitoring
- Azure Analytics
- Azure Alerts
- Azure Resource Metrics
- Azure Activity Log
- Service Health
- Azure Log Analytics
- Azure App Insights

Hands-On:

- Create and Deploy Alert Rules for Azure Resources
- Analyze the data in your metric database
- Create and Configure Azure Log Analytics
- Deploy Azure App Insights Service

Microsoft Azure AZ-303 Project

What are the system requirements for Microsoft Certified Expert: Azure Solutions Architect (AZ-303) ?

Hardware Requirements:

- Memory – Minimum 4 GB RAM
- Processor – Intel Core i3 CPU @2.00 GHz or later
- Storage – 250 GB HDD/SDD or later

Software Requirements:

- Operating System – Windows 7 or later, Ubuntu 14 or later
- Visual Studio 2017 community edition (Include Azure packages)
- Windows PowerShell 4.0 or later (Install Azure Module)
- Microsoft Azure SDK for .NET v2.9 (prefer latest)



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How will I execute practicals in this Microsoft Azure AZ-303 course?

You have to create an Azure Free Tier account to execute all the practicals.

Teaching Contact Hours

Total duration- 1 month, 6 days/week and 2 hours/day. Theory and Particles

Entry Requirements

This course can be taken only by Technical and NON Technical Graduates.

How will this course enhance my career Growth?

This course will help you become either one of the following,

- Azure Fundamentals
- Azure Administrator Associate
- Azure Developer Associate
- Azure Solutions Architect Expert
- Azure DevOps Engineer Expert
- Azure Security Engineer Associate

Students Benefits from SNIT

Training by Industry Experts on Real time scenarios

The steps to gets placed

1. Complete the Course
2. Resume preparation
3. Mock Interviews
4. Attend Interviews
5. Get Selection & Appointment letter

The Institute offers placement free of cost to those students who complete the entire Curriculum successfully. As per the placement policies

The Student shall only Pay the Institution fee for learning Subject not for Job

1. Depending on vacancies, a student may be offered a job at any location.
2. Students will be supported for vacancies, once he is selected cannot refuse placement.
3. Student will be placed at salaries which will be depends on their performance