





MICROSOFT AZURE Infrastructure Solutions CERTIFICATION COURSE FOR AZ-305

Microsoft Azure Solutions skills and take your career to the next level!

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This certification course has been designed by industry experts to help you prepare for the Architect Technologies Exam. Through this training, you will gain knowledge in advanced configuration for networking, security, reliability, virtualization, identity, disaster recovery, data management, budgeting, etc. You will also receive official Microsoft course material for "Developing Microsoft Azure Infrastructure Solutions".



1.3 Million Job Postings

There is a global estimate of 1.3 million job postings for Microsoft Azure Infrastructure Solutions by 2023



Growing Microsoft Azure Industry

40% CAGR in the global Microsoft Azure industry



High Demad

By 2023, India and US will face a demand supply gap of 300,000 Microsoft Azure Infrastructure Solutions



About Program

This Microsoft Azure Infrastructure Solutions Certification Course for AZ-305 will provide you with definitive training in architecting Microsoft Azure infrastructure solutions. As a part of the training, you will get hands-on experience by working on real-world projects for building scalable Azure infrastructure, designing web apps, etc., and become industry-ready.

Key Highlights

- √ 50 Hrs Instructor-led virtual Training
- Recording would be provided of all sessions
- ✓ Project / Lab based Training
- Certification Assistance will be provided
- ✓ Microsoft Certified Trainer will conduct the training
- Trainer has 18+ years of industry experience



Program Curriculum

Module 1

Introduction to Microsoft Azure

- Introduction to cloud computing
- What is Microsoft Azure?
- Microsoft Azure Services
- Azure Portal
- Azure CLI
- Azure PowerShell

Module 2

Introduction to ARM & Azure Storage

- Azure Resources & Subscriptions
- Azure Resource Manager
- Managing Azure Resources
- Azure Tags
- Azure Storage Account & its types
- Azure Blob Storage
- Azure Content Delivery Network (CDN)
- Azure Files Storage Azure File Sync

Module 3

Introduction to Azure storage

- Azure Table Storage
- Azure Queue Storage
- Azure Storage Explorer
- Azure Shared Access Signature (SAS)
- Azure Databox
- Azure Storage Replication
- Data Replication Options
- Azure Import/Export Service

Module 4

Azure Virtual Machines

- Azure Virtual Machines
- Data Disks in Azure
- Azure VMs & Interfaces
- ARM templates
- VHD templates
- Custom Images of Azure VM
- Virtual Machine Scale Sets
- Virtual Machine Availability Sets

Module 5

Azure App and Container Services

- App Service Web App for Containers
- App Service plan
- Networking for an App Service
- Deployment slots
- Container image
- Azure Kubernetes Service
- Azure Container Registry

Module 6

Azure Networking

- Azure Virtual Networks
- Azure Vnet
- Components IP Address
- Public & Private IPs
- Azure Vnet Subnets
- Azure Network Interface Cards (NIC)
- Network Security Group (NSG)
- Route Tables Service Tags
- Azure DNS
- Private DNS



Program Curriculum

Module 7

Azure Networking II

- Application Gateway
- Azure Front Door Service
- Azure Traffic Manager
- Application Security Groups
- Azure Load Balancers
- Azure Firewall
- Azure Bastion
- Network Watcher
- Azure Express
- Route Express
- Route Circuits
- Express Route Peering

Module 8

Authentication and Authorization in Azure using RBAC

- Identity and Access Management in Azure
- Role Based Access Management (RBAC)
- Role Definitions
- Role Assignment in Azure Resources
- Azure Users & Groups
- RBAC Policies

Module 9

Microsoft Azure Active Directory

- Azure Active Directory (Azure AD)
- Windows AD Vs Azure AD
- Azure AD Users
- Azure AD Groups
- Azure AD Domains
- Azure AD Tenants

- Authentication Options
- Azure AD Connect
- Self Service password Reset (SSPR)
- Multi Factor Authentication (MFA)
- Resource Locks

Module 10

Azure Monitoring

- Azure Monitor
- Azure Metrics Log Analytics
- · Alerts and actions
- Application Insights
- Backup reports
- Recovery Services
- Vault Backing Up
- Azure Virtual Machines
- VM Backup Policies
- Restoring Azure Virtual machines

Module 11

Multi Factor Authentication (MFA)

- MFA Fraud Alerts
- MFA Bypass Options
- MFA Trusted IPs
- MFA Verification Methods
- Azure Key Vault
- Azure AD Managed Identities
- Azure AD Application Management



Program Curriculum

Module 12

Migration in Azure

- Understanding VM migration
- Azure Migrate
- Azure Site recovery
- Server Assessment
- Server Migration

Module 13

Azure Data Platform - I

- NoSQL and NoSQL Database
- Cosmos DB
- Multiple APIs and Data Models
- Request Units
- Request Unit Calculator
- Achieving Elastic Scale
- Partition Key Cross partition Queries
- Replication
- Turnkey Global Distribution
- Replication and Consistency
- Consistency Levels
- Document Database
- Cosmos DB Resource Model
- Resource Properties, Self links, and URLs

Module 14

Azure Data Platform - II

- Data Migration Tool
- Rich Query with SQL
- SQL Operators and Functions
- Client Development
- Indexing Policies
- Users, Permissions, and Resource Tokens
- Server side Programming Model
- Triggers
- User defined Functions (UDFs)
- Table API
- Cosmos DB
- Graph Database
- Vertices and Edges
- Populating the Graph
- Bi directional Relationships
- Writing Gremlin Queries
- Azure Table Storage

Course Projects

Projects cover the following industries:















Social Media

Handling Data migration based on provided architectural requirements

The learners will create and migrate Azure Virtual Machines, creating storage accounts and application gateways for aiding Azure Migrate. They will learn how to create architecture by using the mentioned services to migrate servers.

Building a dashboard to monitor your website

Monitoring a website with Azure is included in the project wherein the learners will build a dashboard. The learners will use Azure metrics and monitor an organization's website, which is running on a web application, for managing it.

Implementing a New Architecture to the Company's Website

Design an architecture according to the requirement for application gateway, storage accounts, and traffic manager. Use VNET to establish a connection between two networks. Use these services to create a highly-available architecture.

Case Study 1 - Introduction to **Cloud Computing**

The project involves solving the issue of not wanting the corporation's confidential data on the cloud while migrating to Microsoft Azure. Here, all resources are governed and track costing and billing is performed separately.

Case Study 2 - Microsoft Azure Storage

The project involves the learners solving latency issues, difficulty in accessing common files and tools, and easing the upload of static content to Azure Storage. The learners will also create and configure a CDN endpoint.

Case Study 3 - Azure Virtual **Machines**

This project allows the learners to manage scaling requirements by using scale sets and use a custom image to create a virtual machine and automate the scaling of virtual machines as required.

Case Study 4 - Microsoft Azure **Networking**

This project involves creating a VNET with multiple subnets and deploying virtual machines within it. It also involves establishing a connection between these subnets and enabling the resources within them to communicate privately.

Course Projects

Projects cover the following industries:















Case Study 5 - Load Balancing and Network Watcher

The learners will study how to successfully set up a load balancer for backend resources and ensure that the setting is such that a single frontend IP is exposed and a network watcher is available to generate alerts in Azure portal.

Case Study 6 - Access Management in Azure

The project adds users to the organization's custom active directory domain and provides access to some of the services managed by them. The password authentication method and MFA must be set up with a verification option.

Contact Us:

Pune, India

Flat # A-702, Ashtvinayak City, Phursungi Village Road, Phursungi, Pune, Maharashtra Phone No: +91-844-6677-218

Ranchi, India

Falt # C-1D, Sail City, New Pundag, Ranchi, Jharkhand

Email: sales@piyushacademy.com