



# Microsoft Azure 104 Training Course for Azure Administrator

In Collaboration with **Microsoft**

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## About the Program

Intellipaate's Microsoft Azure training is an in-depth training course for Azure Administrator, which will help you master various aspects of the cloud architecture, its various layers, components, Azure Resource Manager, virtual network connectivity, Windows PowerShell, and deploying the cloud infrastructure and security. This AZ-104 Microsoft Azure Administrator course is aligned with the 2021 certification guidelines.



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## Collaborating with Microsoft

Microsoft is one of the largest organizations in terms of inventing creative tools for various purposes. Experts from Microsoft and other top MNCs will offer you their understanding and knowledge in the field through this online certification. Moreover, you will also get deep insights into the concepts and gain hands-on experience by working on industry-specified assignments.

### **Benefits for students from Microsoft:**

- Industry-recognized Microsoft certification
- Real-time projects and exercises

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## About Intellipaate

Intellipaate is one of the leading e-learning training providers with more than 600,000 learners across 55+ countries. We are on a mission to democratize education as we believe that everyone has the right to quality education.

Our courses are delivered by subject matter experts from top MNCs, and our world-class pedagogy enables learners to quickly learn difficult topics in no time. Our 24/7 technical support and career services will help them jump-start their careers in their dream companies.

# Key Features



**30 HRS INSTRUCTOR-LED  
TRAINING**



**22 HRS SELF-PACED TRAINING**



**56 HRS REAL-TIME  
PROJECT WORK**



**LIFETIME ACCESS**



**24/7 TECHNICAL SUPPORT**



**INDUSTRY-RECOGNIZED  
CERTIFICATION**



**JOB ASSISTANCE THROUGH  
80+ CORPORATE TIE-UPS**



**FLEXIBLE SCHEDULING**

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# Career Support



## **SESSIONS WITH INDUSTRY MENTORS**

Attend sessions from top industry experts and get guidance on how to boost your career growth



## **MOCK INTERVIEWS**

Mock interviews to make you prepare for cracking interviews by top employers



## **GUARANTEED INTERVIEWS & JOB SUPPORT**

Get interviewed by our 400+ hiring partners



## **RESUME PREPARATION**

Get assistance in creating a world-class resume from our career services team



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## Why take up this course?

Today, every enterprise is moving toward Cloud Computing to meet growing customer expectations and to always be ahead of its competitors. Microsoft Azure is growing at an unprecedented rate, and due to this, there is an urgent need for Azure Certified Administration professionals. Intellipaat's Azure certification training will give you hands-on experience in handling Azure services, storage, servers, and more. You will work on managing virtual machines, securing and managing identities, and more. Upon the completion of the training, you can apply for the best jobs at top salaries.

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## Who should take up this course?

- Solutions Architects and Network and QA Engineers
- DevOps, Virtualization, Network, and Systems Admins
- Storage, Cloud, and Security Admins

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# Program Curriculum

## Microsoft Azure Course Content

### 1. INTRODUCTION TO MICROSOFT AZURE

- 1.1 Introduction to Cloud Computing
- 1.2 What is Microsoft Azure?
- 1.3 Microsoft Azure Services
- 1.4 Creating a Microsoft Azure Account
- 1.5 Azure CLI and Azure PowerShell
- 1.6 Managing Azure resources and subscriptions
- 1.7 Azure Resource Manager
- 1.8 Microsoft Azure architecture

#### ***Hands-on Exercise:***

- 1. *Creating a Microsoft Azure account*
- 2. *Configuring Azure PowerShell*
- 3. *Configuring Azure CLI*

### 2. INTRODUCTION TO ARM & AZURE STORAGE

- 2.1 Azure resources and subscriptions
- 2.2 Azure Resource Manager
- 2.3 Managing Azure resources
- 2.4 Azure tags
- 2.5 Azure Storage account and its types
- 2.6 Azure Blob Storage
- 2.7 Azure Content Delivery Network (CDN)
- 2.8 Azure Files Storage
- 2.9 Azure File Sync

#### ***Hands-on Exercise:***

- 1. *Manage Resource Groups in Azure*
- 2. *Move resource from one resource group to another*

3. *Apply tags*
4. *Create a storage account*
5. *Access the storage account*
6. *Create a blob storage*
7. *Upload in the blob storage*
8. *Create a file share*
9. *Creating and using CDN endpoint*

### **3. INTRODUCTION TO AZURE STORAGE**

- 3.1 Azure Table Storage
- 3.2 Azure Queue Storage
- 3.3 Azure Storage Explorer
- 3.4 Azure Shared Access Signature (SAS)
- 3.5 Azure Databox
- 3.6 Azure Storage Replication
- 3.7 Data Replication options
- 3.8 Azure Import/Export Service

#### ***Hands-on Exercise:***

1. *Attach and detach an external storage account*
2. *Storage explorer: Blob, file, etc.*
3. *Queues and table storage*
4. *Backup archive*
5. *Backup snapshots*
6. *Backup AZCopy*
7. *Azure Shared Access Signature (SAS)*
8. *Use Azure Data Factory Copy Data tool to transfer data to Azure*

### **4. AZURE VIRTUAL MACHINES**

- 4.1 Azure virtual machines
- 4.2 Data disks in Azure
- 4.3 Azure VMs and interfaces
- 4.4 ARM templates
- 4.5 VHD templates
- 4.6 Custom images of Azure VM



4.7 Virtual machine scale sets

4.8 Virtual machine availability sets

***Hands-on Exercise:***

1. *Creating and configuring an Azure VM*
2. *Deploying a custom image of Azure VM*
3. *Virtual machine scale sets*

## **5. AZURE APP & CONTAINER SERVICES**

5.1 App Service Web App for containers

5.2 App Service plan

5.3 Networking for an App Service

5.4 Deployment slots

5.5 Container images

5.6 Azure Kubernetes Service

5.7 Azure Container Registry

***Hands-on Exercise:***

1. *Create an App Service Web App for containers*
2. *Create a container image*
3. *Configure Azure Kubernetes Service*
4. *Publish and automate image deployment to Azure Container Registry*

## **6. AZURE NETWORKING - I**

6.1 Azure virtual networks

6.2 Azure VNet components

6.3 IP Address: Public and private IPs

6.4 Azure VNet subnets

6.5 Azure Network Interface Cards (NIC)

6.6 Network Security Groups (NSGs)

6.7 Route tables

6.8 Service tags

6.9 Azure DNS

6.10 Private DNS

***Hands-on Exercise:***

1. *VNet creation*
2. *Create and configure VNet-VNet peering*
3. *Verify virtual network connectivity*
4. *Assign a static IP to a VM*
5. *Create route tables*
6. *Add routes*
7. *Create NIC*
8. *Attach NIC to the VM*
9. *Create DNS*
10. *Add RecordSet*
11. *Create NSG*
12. *Add the security rule to NSG*
13. *Attach NSG to a subnet*
14. *Verify if NSG is applied*

## **7. AZURE NETWORKING - II**

- 7.1 Application Gateway
- 7.2 Azure Front-door Service
- 7.3 Azure Traffic Manager
- 7.4 Application Security Groups
- 7.5 Azure Load Balancer
- 7.6 Azure Firewall
- 7.7 Azure Bastion
- 7.8 Network Watcher
- 7.9 Azure ExpressRoute
- 7.10 ExpressRoute Circuits
- 7.11 ExpressRoute Peering

### ***Hands-on Exercise:***

1. *Create an internal load balancer*
2. *Create a public load balancer*
3. *Use the Application Gateway*
4. *Implement the Azure Front-door Service*
5. *Implement Azure Traffic Manager*
6. *Deploy and configure Azure Bastion Service*

## 8. AUTHENTICATION & AUTHORIZATION IN AZURE USING RBAC

- 8.1 Identity and Access Management in Azure
- 8.2 Role-based Access Control (RBAC)
- 8.3 Role definitions
- 8.4 Role assignment in Azure Resources
- 8.5 Azure users and groups
- 8.6 RBAC policies

### ***Hands-on Exercise:***

1. *Create a custom role for Azure Resources*
2. *Assign the role to configure access to Azure Resources*

## 9. MICROSOFT AZURE ACTIVE DIRECTORY

- 9.1 Azure Active Directory (Azure AD)
- 9.2 Windows AD vs Azure AD
- 9.3 Azure AD users
- 9.4 Azure AD groups
- 9.5 Azure AD domains
- 9.6 Azure AD tenants
- 9.7 Authentication options
- 9.8 Azure AD Connect
- 9.9 Self-service Password Reset (SSPR)
- 9.10 Multi-factor Authentication (MFA)
- 9.11 Resource Locks

### ***Hands-on Exercise:***

1. *Add or delete users using Azure Active Directory*
2. *Add or delete tenants using Azure Active Directory*
3. *Create a basic group and add members*
4. *Apply Resource Locks*

## 10. MICROSOFT AZURE ACTIVE DIRECTORY

- 10.1 Azure Monitor
- 10.2 Azure Metrics
- 10.3 Log Analytics

- 10.4 Alerts and actions
- 10.5 Application Insights
- 10.6 Backup reports
- 10.7 Recovery Services Vault
- 10.8 Backing up Azure virtual machines
- 10.9 VM backup policies
- 10.10 Restoring Azure virtual machines

***Hands-on Exercise:***

- 1. Configure and interpret Azure Metrics*
- 2. Configure Log Analytics*
- 3. Query and analyze logs*
- 4. Set up alerts and actions*
- 5. Create a Recovery Services Vault*
- 6. Back up and restore a virtual machine*

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## Project Work

### Microsoft Azure Administrator Training Projects Covered

**Project 1:** Implementing a New Architecture to Your Company's Website

**Problem:** Implementing a new architecture to the company's website based on the requirements given for Application Gateway and configuring storage accounts and traffic manager for the same.

**Topics:**

- Azure Gateway
- Azure Storage Accounts
- Traffic Manager
- Azure Networking
- Azure Blob Storage
- Azure containers

## Highlights:

- Working and configuring application gateway
- Configuring the storage account to technical specifications
- Working with the blob storage
- VNet-VNet peering
- Distributing traffic across different regions

## Project 2: Building a Dashboard to Monitor Your Company's Website, Running on a Web App

### Topics:

- Azure Metrics
- Log Analytics
- Application Insights
- Alerts and Actions
- Azure Monitor

## Highlights:

- Visually correlate trends among various metrics
- Investigate spikes and dips in metric values
- Create a common dashboard for various metrics
- Raise alerts and perform relevant actions on specified conditions

## Case Study 01: Introduction to Cloud Computing

**Problem statement:** Solving the issue of not wanting the corporation's confidential data on the cloud while migrating to Microsoft Azure

**Topics:** Azure Resource Manager and Azure Subscriptions

## Highlights:

1.1 Govern all resources separately

1.2 Track cost and bill each service that is in use separately

1.3 Access and manage resource groups

### **Case Study 02: Microsoft Azure Storage**

**Problem statement:** Solving latency issues and difficulty accessing common files and tools

**Topics:** Azure storage account, Azure file share, and CDN endpoint

#### **Highlights:**

2.1 Uploading static content to Azure Storage

2.2 Creating and configuring a CDN endpoint to serve the static files that are uploaded

2.3 Creating an Azure file share and uploading content in it

2.4 Connecting a Linux or Windows server to the file share

### **Case Study 03: Azure Virtual Machines**

**Problem statement:** Managing scaling requirements using scale sets and using a custom image to create a virtual machine

**Topics:** Virtual machines and custom images

#### **Highlights:**

3.1 Automating the scaling of virtual machines as required

3.2 Deploying multiple identical VMs using the custom VM image

### **Case Study 04: Microsoft Azure Networking**

**Problem statement:** Deploying a virtual network with multiple subnets in it and enabling the resources within them to communicate privately

**Topics:** Virtual network and VNet peering

#### **Highlights:**

4.1 Creating a VNet with subnets and deploying virtual machines in it

4.2 Establishing a connection between these subnets

### **Case Study 05: Load Balancing and Network Watcher**

**Problem statement:** Setting up a Load Balancer and a Network Watcher in the Azure portal

**Topics:** Azure Load Balancer and Network performance monitor

**Highlights:**

- 5.1 Deploying a Load Balancer for the backend resources such that a single frontend IP is exposed, and all the web servers can be accessed from it
- 5.2 Setting up a Network Performance Manager to generate alerts

**Case Study 06: Access Management in Azure**

**Problem statement:** Providing access to some of the services managed by your organization's Active Directory

**Topics:** Azure Active Directory and Azure Multi-factor Authentication

**Highlights:**

- 6.1 Adding users in Active Directory and giving them access
- 6.2 Creating users in custom Active Directory domain and giving them access
- 6.3 Setting up a password authentication method
- 6.4 Setting up MFA with a verification option

# Certification

After the completion of the course, you will get certificates from Microsoft and IntelliPaat.



## CERTIFICATE OF COMPLETION

This certificate is awarded to

**Your Name**

Who has successfully completed

**Course Name**

Fulfilling all the requirements stipulated by IntelliPaat to achieve professional excellence.

Issued Date: Month XX, XXXX

Mrs. Shilpi Jain  
Director,  
intellipaate Software Solutions Pvt. Ltd.

VERIFIED  
CERTIFICATE

Certificate ID #94658291



This certificate accredits that

**Hemant Jain**



has successfully completed the following  
Microsoft Official Course

**Course Name**

  
Satya Nadella  
Chief Executive Officer  
Aayush Rathi  
Microsoft Certified Trainer



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## Success Stories



### **Kevin K Wada**

Thank you very much for your top-class service. A special mention should be made for your patience in listening to my queries and giving me a solution, which was exactly what I was looking for. I am giving you a 10 on 10!



### **Sampson Basoah**

The Intellipaate team helped me in selecting the perfect course that suits my profile. The whole course was practically oriented, and the trainers were always ready to answer any question. I found this course to be impactful. Thank you.



### **Jagadeesh Prashanth**

The best part of Intellipaate training is that it supports you for a lifetime. Even after the Azure Administrator certification training completion, all my queries are still addressed with full dedication. This is really appreciable. Thanks a lot.



### **Hareram Singh**

The support team helped me in the course selection. I have never come across such a cooperative team. They scheduled my Azure classes as per my requirement. The entire course package was great. I enjoyed every bit of it.



### **Vishal Pentakota**

The best part of this course was the series of hands-on demonstrations that the trainer performed. Not only did he explain each concept theoretically, but he also implemented all those concepts practically. Great job! A must go for beginners.

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# CONTACT US

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If you have any further queries or just want to have a conversation with us, then do call us.

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