



# Microsoft Azure Development

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# What is Microsoft Azure?

Microsoft Azure is a cloud computing platform for building, deploying and managing services and applications from anywhere, and at any time. With Azure, one could add cloud computing capabilities to their existing network through PaaS (Platform-as-a-Service) or IaaS (Infrastructure-as-a-Service) model to explore the IaaS architecture of Microsoft Azure, thereby optimizing the Windows server workloads and implements enterprise applications architecture on the Azure platform.



## Who should take this course:

As on-premise data centers are becoming obsolete, cloud with its affordability and availability, is attracting more and more users. Microsoft Azure is one of the most popular cloud service providers in the market, with over two-thirds of the world's Fortune 500 companies moving their workloads to Microsoft Azure.

The course is highly recommended for individuals keen to leverage the cloud platform for enterprise success. Anyone who desires to manage Microsoft Azure will find the course immensely helpful in preparing for the Microsoft Azure Development.

## Prerequisites:

**The prerequisites to take up this course are -**

1. No Prior Knowledge Required

# Latest trends in Microsoft Azure

"MS Azure is used by over 57% of Fortune 500 companies."(Microsoft)

"It is estimated that by 2020, Microsoft Azure will have a 21% market share."(Tech Republic)

"Over 1,000 new customers sign up to Azure on a daily basis. That's 365,000 new companies adopting MS Azure every year!"(Microsoft)

## Program Structure and Platforms

- 32 hours of live online training taught by industry veteran instructor
- 24/7 PoC support
- Multiple assignments to ensure thorough understanding
- On-demand customizable course deliverables

# DETAILED CURRICULUM : MODULES

## **Module 1 :Azure Virtual Machines**

- Introduction to cloud
- Different offerings of Cloud IAAS,PAAS and SAAS
- Lab : How to create Linux VM
- Lab : How to SSH to Linux VM through Putty
- Lab : How to use linux commands
- Lab : How to write basics script and Execution of scripts through crontab
- Lab : How to create the Windows VM

## **Module 2: Azure Data Factory**

- What is Azure Data Factory
- Lab : Creation of Azure Data Factory
- Lab : Creation of Linked services and Datasets
- Lab : Creation of pipelines
- Introduction to Integration runtime and types of Integration runtimes
- Lab : How to install Integration runtimes
- Lab : Copy Data from Azure sql database to Blob Storage
- Lab : Copy Data from Azure sql database to ADL Storage
- Lab : Copy Data from Azure sql database to sql database
- Lab : Copy Data from Azure Blob Storage to sql database
- Lab : Copy Data from Azure Blob Storage to Blob Storage
- Lab : Copy Data from Azure Blob Storage to ADL Storage
- Lab : Copy Data from Azure ADL Storage to sql database
- Lab : Copy Data from Azure ADL Storage to ADL Storage
- Lab : Copy Data from Azure ADL Storage to Blob Storage
- Lab : How to implement pipeline to load increment data
- Lab : How to copy multiple files from blob storage to blob storage by passing the dynamic parameters
- Lab : Pipeline to copy only failed files in the last run to the blob storage dynamic queries in ADF.

- Lab : Pipeline with Lookup activity, forEach activity, If activity, wait activity, Stored procedure, web activity, metadata activity.
- Lab : How to send mails through logical apps by using web activity
- Spark Activity in ADF
- Lab : Passing Parameters through pipelines
- How to create Key Vault
- How to create logic apps and define flow.

## **Module 3: Azure storage and Azure SQL DB**

- Lab : Creation of Blob Storage accounts
- Lab : Creation of Azure blobs
- Lab : Creation of Azure SQL database
- Lab: Implement and manage storage

## **Module 4: Azure Data Lake and Azure Datalake Analytics**

- Lab : How to create the App Registration
- Lab : How to create ADL and ADLA
- Lab : How to Integrate Azure data lake analytics with ADF USQL activity
- Lab : How to create the jobs and submit U-SQL queries
- Lab : How to integrate Azure data lake store with ADF

## **Module 5: Automation Account**

- Lab : How to create Automation Account
- Lab : How to create runbooks and publish
- Lab : How to Import runbooks
- Lab : How to schedule the runbooks
- Lab : How to make API calls to runbooks

# DETAILED CURRICULUM : MODULES

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## **Module 6: Azure HDInsight**

- Lab : How to create Azure HDInsight
- Lab : How to attach extra storages to HDInsight
- Lab :How to SSH to the cluster and Use of Spark Activity
- Lab : How to Monitor job execution in Yarn
- Introduction to Ambari
- Lab : Creation of Hive External tables and Jupyter
- Lab : Intergration of HDInsight with Azure Data Factory through spark activity

## **Module 7: Databricks**

- Lab :How to Create the cluster
- Lab :How to work with Databricks File system
- Lab : How to create notebooks and what we can do with notebooks
- Lab :How to import and export the Notebooks
- Lab : How to connect to blob, SQL DB from databricks
- Lab : How to integrate the databricks from Azure Data Factory

## **Module 8: Azure SQL Datawarehouse**

- Lab : Creation of masterkey
- Lab : Creation of data source
- Lab : Creation of credentials
- Lab : Creation of External Tables
- Lab : Azure Data Factory integration with Azure SQL DW

## **Module 8: Realtime projects**

- Two realtime projects explanation
- Lab : One end to end project practicals

- Interview Question and answers

## **Module 10: Powershell**

- Lab :How to install and connect to powershell
- Lab :How to create Resource group from powershell
- Lab :How to create ADF V1 and ADF V2 from powershell
- Lab :How to create Blob, ADLS and ADLA from powershell
- Lab :How to create Databricks, Automation account from powershell
- Lab :How to create multiple storage by using script
- Lab :Powershell useful commands

## **Module 10: Python**

- Python Introduction
- KeyWords in Python
- Data Types in python
- Deep Drive into List
- Deep Drive into Tuple
- Deep Drive into Set
- Deep Drive into Dict
- Deep Drive into String
- Functions in python
- Different Types of Arguments in python.
- Exception Handling in python
- File Handling in python
- Logging in python
- Regular Expression in python.
- Modules and packages
- Lambda functions
- Control Statements
- Looping

# DETAILED CURRICULUM : MODULES

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## **Module 11: Spark**

- Introduction to Apache Spark
- Why Spark
- Batch Vs. Real Time Big Data Analytics
- In Memory Data – Spark, What is Spark?,
- Spark Execution Architecture
- Benefits of Apache Spark
- Components of Spark
- What is RDD
- Different Ways to create the RDDs
- What is Map Transformations
- What is Filter Transformations
- what is reduce Transformations
- Spark Transformations
- Spark Actions
- Spark Cluster
- What is Dataframe
- Different ways to create the Data Frames
- Spark Data Frames
- Spark SQL with CSV
- Spark SQL with parquet
- Spark SQL with JSON
- Spark SQL with Database
- Spark SQL Introduction
- Different Ways of creating temp tables
- Joins in spark



# Training Benefits



PORTAL ACCESS FOR 6 MONTHS



24 x 7 SUPPORT



TWO REAL-TIME PROJECTS



INDUSTRY EXPERTS AS TRAINERS



ACCESS TO RECORDED SESSIONS





# POTENTIAL CAREER

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**Data Engineer**

**Microsoft Azure Architect**

**Senior cloud Engineer**

**Microsoft Azure data platform architect**

**Microsoft Azure solutions architect**



**Microsoft  
Azure  
Development**

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