AZURE Data Engineer [DP-203] Syllabus

Instructor Information

Instructor	Email	Duration
ExaGuru	support@exaguru.com	50 Hours

Description

This course provides a comprehensive exploration of all technical aspects related to the Azure Data Engineering technical stack. The content is custom-designed by ExaGuru Architects, incorporating practical implementations and referencing multiple live scenarios based on global customer implementations.

Expectations and Goals

After completing this course, one should be proficient in handling Azure Data Engineering solutions, including data storage, processing, and analytics services within the Azure ecosystem. This course includes comprehensive theoretical knowledge and practical scenarios, designed and developed by experts actively working in the field.

Course Materials

- Laptop with 2/4 Gb Ram
- Internet Access for Accessing Cloud Services and Live/Recorded training

Bonuses Provided with the Course

- Hands-on lab Exercises prepared by Experts.
- High-quality video access through a dedicated LMS Portal.
- Interview questions and strategy sessions with Experts.
- Latest Questions and Answers for Clearing Certification Exams.
- FREE Lifetime private community Access for discussing problems related to concerned subject.

Course Schedule

Module	Topic
Pre-requisite	**Azure Administrator Basics** • Basics of Cloud Computing • Azure Account Creation • Microsoft Azure Cloud Portal Overview • Azure Governance Mechanism (Management Groups, Subscription, Resource Groups) • Virtualization • Encryption • Azure Virtual Machines, Keypair, Azure Disks • Azure Storage Account • Benefits of Storage Account • Azure Storage Replication Types • Azure Data Migration
Non-Relational Data Stores and Azure Data Lake	**Non-Relational Data Stores** and **Azure Data Lake** • Storage • Document data stores • Columnar data stores • Key/value data stores • Graph data stores • Time series data stores • Object data stores • External index • Why NoSQL or Non-Relational DB? • When to Choose NoSQL or Non-Relational DB? • Azure Data Lake Storage

Module	Topic
Data Lake and Azure Cosmos DB	**Data Lake and Azure Cosmos DB** • Data Lake Key Concepts • Azure Cosmos DB • Why Azure Cosmos DB? • Azure Blob Storage • Why Azure Blob Storage? • Data Partitioning • Why Partitioning Data? • Consistency Levels in Azure Cosmos DB
Relational Data Stores	**Relational Data Stores** • Introduction to Relational Data Stores • Azure SQL Database • Why SQL Database Elastic Pool?
Why Azure SQL?	**Why Azure SQL?** • Azure SQL Security Capabilities • High - Availability and Azure SQL Database • Azure Database for MySQL • Azure Database for PostgreSQL • Azure Database for MariaDB • What is PolyBase? • What is Azure Synapse Analytics?

Module	Topic
Azure Batch	**Azure Batch** • What is Azure Batch? • 5.2 Intrinsically Parallel Workloads • Tightly Coupled Workloads • Additional Batch Capabilities • Working of Azure Batch
Azure Data Factory	**Azure Data Factory** • Flow Process of Data Factory • Why Azure Data Factory • Integration Runtime in Azure Data Factory • Mapping Data Flows
Azure Data Bricks	**Azure Data Bricks** • What is Azure Databricks? • Azure Spark-based Analytics Platform • Apache Spark in Azure Databricks

Module	Topic
Azure Stream Analytics	**Azure Stream Analytics** • Working of Stream Analytics • Key capabilities and benefits • Stream Analytics Windowing Functions
Monitoring & Security	**Monitoring & Security** • What is Azure Monitor? • What data does Azure Monitor collect? • What can you Monitor? • Alerts in Azure • Azure Security Logging & Auditing

Hands-On Lab Overview

- Creating and managing **Resource Groups** in Azure
- Setting up **Virtual Networks (VNet)** and **Subnets** in Azure
- Configuring **Route Tables** and **Network Security Groups (NSG)**
- Creating and managing **Firewall Rules** for secure data access
- Implementing **Azure Private Link and Service Endpoints**
- Configuring **Azure Virtual Network Gateway, ExpressRoute, NAT Gateway**
- Provisioning **Azure Virtual Machines (VMs)** and analyzing available SKUs
- Connecting to **Azure VMs** from Windows and Linux machines
- Managing **SSH Keys, Passwords, and Role-Based Access Control (RBAC)**
- Starting, stopping, and scaling **Azure VMs** via **Azure Portal, CLI, and API**
- Migrating **Compute Resources** across **Resource Groups and Regions**
- Setting up **Azure Managed Disks, Snapshots, and Backups**
- Configuring and managing **Azure Blob Storage, Data Lake, and File Storage**
- Uploading and downloading data to/from **Azure Storage Accounts**
- Implementing **Backup and Restore strategies** for data resiliency
- Creating and managing **Azure Policies, Users, and Role Assignments** for security and compliance

Email: *support@exaguru.com*

Contact Us: +91-8901986468