

Azure Data Engineer

This comprehensive program is meticulously crafted to empower you with the skills and expertise needed to excel in the dynamic world of data engineering.



25 Weeks



12 Modules



15 Quizzes



Course Highlights



200 Hrs.
of Applied Learning



Designed for
Working Professionals & Freshers



50+
Industry Projects & Case Studies



100%
Placement Assistance



LinkedIn
Profile Review



1:1
Mock Interview



100+
Live sessions



24*7
Support

Who can apply for this course

- ✓ Individuals with a bachelor's degree and a keen interest to learn AI and Data Science.
- ✓ IT professionals looking for a career transition as Data Scientists and Artificial Intelligence Engineers.
- ✓ Professionals aiming to move ahead in their IT career.
- ✓ Artificial Intelligence and Business Intelligence professionals.
- ✓ Developers and Project Managers.
- ✓ Freshers who aspire to build their career in the field of Artificial Intelligence and Data Science.
- ✓ ETL Developers/Architect who wanted to excel their professional growth in cloud environment.



Where will your career Take off?

- ✓ Data Scientist
- ✓ Data Analyst
- ✓ Business Analyst
- ✓ Data Engineer
- ✓ AI Researcher
- ✓ Data Consultant



Learning Outcomes

- ✓ Implement data storage solutions
- ✓ Manage and develop data processing
- ✓ Monitor and optimize data solutions using Azure Cosmos DB, Azure SQL Database, Azure Synapse Analytics, Azure Data Lake Storage, Azure Data Factory, Azure Stream Analytics, Azure Databricks, and Azure Blob storage services



Course Modules

Module – 1

Introduction to Azure and Data Engineering

- Overview of Azure cloud services and its data-related offerings.
- Understanding the role of a data engineer in Azure-based environments.

Module – 2

Azure Data Services Overview

- Exploring Azure data services
- Azure SQL Database
- Azure Cosmos DB
- Azure Data Lake Storage
- Azure Synapse Analytics

Module – 3

Azure Data Factory

- Introduction to Azure Data Factory
- Data Orchestration
- Data Movement
- Data Transformation
- Building data pipelines using Data Factory for ETL (Extract, Transform, Load) processes
- Transformations by different means (Databrick Notebooks..etc)
- ADF Project Assignment 1

Module – 4

Azure Databricks

- Leveraging Azure Databricks for big data processing, analytics, and machine learning.
- Implementing data transformations and analytics using Spark on Azure Databricks.
- ADF Project Assignment 2

Course Modules

Module – 5

Azure Synapse Analytics (formerly Azure SQL Data Warehouse)

- Understanding and implementing data warehousing concepts on Azure Synapse Analytics.
- Designing and managing data warehousing solutions for analytics and reporting.
- ADF Project Assignment 3

Module – 6

Azure Stream Analytics

- Real-time data processing using Azure Stream Analytics
- Building and deploying real-time analytics solutions for IoT and other streaming data sources
- ADF Project Assignment 4

Module – 7

Data Governance and Security on Azure

- Implementing security measures and best practices for Azure data services
- Understanding compliance standards and data governance frameworks on Azure.

Module – 8

Integration and Hybrid Scenarios

- Integrating on-premises data sources with Azure services
- Hybrid data scenarios and implementing connectivity between cloud and on-premises environments
- Performance Tuning and Optimization

Course Modules

Module – 9

Performance Tuning and Optimization

- Techniques for optimizing data pipelines, queries, and storage for better performance.
- Monitoring and troubleshooting data engineering solutions on Azure

Module – 10

Scalability and Cost Optimization

- Strategies for scaling Azure data solutions based on demand
- Cost optimization techniques, managing resources efficiently, and choosing appropriate service tiers.

Module – 11

Data Transformation and Data Lake Architecture

- Designing data lake architectures on Azure Data Lake Storage
- Data transformation techniques using Azure services for analytics and data science

Module – 12

Case Studies and Real-World Projects

- Practical application of Azure data engineering concepts through hands-on projects
- Case studies demonstrating the implementation of Azure data solutions in real-world scenarios

Top Skills and Tools covered

- ✔ Cloud Architecture & Layer Components
- ✔ Azure Resource Manager
- ✔ Virtual Network Connectivity Windows PowerShell
- ✔ Cloud Infrastructure Deployment & Security
- ✔ Azure administration
- ✔ Storage Implementation & Management