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AZURE
DATA ENGINEERING

MASTERCLASS || JOB ORIENTED ||
REAL-TIME PROJECT

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Welcome to the Future of Data Management!

OUR SERVICES

01 Tailored Solutions, Every Time

02 Continuous Learning, Continuous Improvement

03 Hands-on Learning with Industry Tools

04 Real-world Project Simulations

05 Career Guidance and Networking Opportunities

VISIT OUR WEBSITE FOR FULL LIST
WWW.LEVELUPEDU.NET

WHAT YOU CAN EXPECT

01 Cutting-edge Curriculum

02 Flexible Learning Options

03 Collaborative Learning Environment

04 Ongoing Career Assistance

05 Certification and Recognition

BOOK A SEAT

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Elevate Your Skills, Ignite Your Career

Are you ready to embark on a journey of knowledge and innovation? Welcome to our **Azure Data Engineering** Educational Training Program, where learning meets limitless possibilities.

HAVE AN ENQUIRY?

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Table of Contents

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About the Program

Cloud data engineering blends data management with cloud computing, teaching professionals how to optimize cloud platforms for handling diverse datasets.

This program covers cloud architecture, storage, and data processing, emphasizing robust ETL pipeline design and data quality, security, and compliance.

Advanced topics like real-time processing and Apache Spark are explored, along with cloud-native tools for orchestration and monitoring.

The program also delves into data governance, including metadata and versioning.

Graduates are primed to lead in organizations harnessing cloud-based data infrastructure for scalable, secure, and reliable solutions.

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Key Features

- Industry Relevant Curriculum
- Limited class size for an optimal experience
- Constantly Updated According to Industry Trends
- 50+ hands-on assignments and 2 capstone
- Life-time Access to the recorded sessions
- 1:1 mock interview Sessions
- Career Guidance & Placement Support

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Tools Covered

Azure

Apache Spark

Databricks

Azure Data Factory

Azure CosmosDB

Azure Synapse

Azure Blobstorage

Azure SQL Database

Azure HDInsight

Azure Data Lake Storage

Azure Data Explorer

Python

many more..

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COURSE CIRRICULUM

MODULE 1: INTRODUCTION TO AZURE DATA ENGINEERING

1. Overview of Azure Data Engineering
2. Introduction to DP-203 certification
3. Azure Data Services Overview
4. Data Engineering Roles and Responsibilities

MODULE 2: AZURE DATA STORAGE SOLUTIONS

1. Azure Storage Accounts
2. Azure Data Lake Storage
3. Azure Blob Storage
4. Azure SQL Data Warehouse
5. Azure Cosmos DB
6. Azure Database for MySQL

MODULE 3: AZURE DATA INTEGRATION

1. Azure Data Factory
    a. Pipelines and Activities
    b. Data Movement and Transformation
    c. Data Integration Runtimes
2. Azure Databricks
    a. Introduction and Setup
    b. Data Transformation with Databricks
3. Azure Data Bricks Delta Lake

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COURSE CIRRICULUM

MODULE 4: AZURE DATABRICKS

1. Introduction to Azure Databricks
2. Setting Up and Configuring Databricks Workspace
3. Data Ingestion and ETL Processing
4. Data Exploration and Analysis
5. Machine Learning and AI with Databricks
6. Collaborative Workflows and Version Control
7. Job Scheduling and Automation
8. Security and Governance in Databricks
9. Monitoring, Logging, and Troubleshooting
10. Integrations with Azure Services

MODULE 5: AZURE DATA FACTORY

1. Introduction to Azure Data Factory
2. Creating Pipelines for Data Orchestration
3. Data Transformation and Integration
4. Azure Data Factory Best Practices
5. Data Source and Sink Configuration in Data Factory
6. Mapping Data Flows and Data Transformation Activities
7. Dynamic Pipelines and Parameterization Techniques
8. Error Handling and Logging in Azure Data Factory
9. Incremental Data Loading and Change Data Capture (CDC)
10. Performance Optimization and Scalability in Data Factory
11. Integration with Azure Services (e.g., Azure Synapse Analytics, Azure Databricks)
12. Monitoring and Performance Tuning in Azure Data Factory

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COURSE CIRRICULUM

MODULE 6: AZURE SYNAPSE ANALYTICS

1. Introduction to Azure Synapse Analytics
2. Data Ingestion and Integration
3. Data Warehousing with SQL Pools
4. Big Data Processing with Apache Spark
5. Advanced Analytics and Machine Learning
6. Data Security and Compliance
7. Monitoring, Optimization, and Troubleshooting

MODULE 7: AZURE STREAM ANALYTICS

1. Introduction to Azure Stream Analytics
2. Ingesting Data Streams
3. Real-time Data Processing and Transformation
4. Analytics with Stream Analytics
5. Integration with Azure Services
6. Output and Sink Configurations
7. Scaling and Performance Optimization
8. Monitoring and Diagnostics

MODULE 8: DATA MIGRATION TO AZURE

1. Azure Data Migration Services
2. Data Migration Strategies
3. Lift and Shift vs. Replatforming
4. Data Migration Best Practices

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COURSE CIRRICULUM

MODULE 9 : AZURE DATA ORCHESTRATION

1. Azure Logic Apps
2. Azure Functions
3. Event Grid and Event Hubs
4. Scheduling and Triggers
5. Azure Scheduler
6. Azure Automation

MODULE 10 : DATA SECURITY AND COMPLIANCE

1. Azure Data Security
2. Azure Key Vault
3. Data Encryption
4. Identity and Access Management
5. Azure Managed Identity
6. Data Compliance Standards

MODULE 11: MONITORING AND TROUBLESHOOTING

1. Azure Monitor
2. Metrics, Activity Logs
3. Azure Log Analytics
4. Log Queries, Solutions
5. Alerts and Metrics
6. Troubleshooting Data Pipelines
7. Azure Application Insights

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MODULE 12 : MONITORING AND OPTIMIZATION OF COSTS

1. Cost Management and Billing in Azure
2. Resource Optimization Techniques
3. Budgeting and Forecasting for Data Engineering Projects
4. Azure Cost Management Tools

MODULE 16: CAPSTONE PROJECTS

MODULE 17: INTERVIEW PREPERATION

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CAPSTONE PROJECTS

SOCIAL MEDIA SENTIMENT ANALYSIS

In today's digitally connected world, understanding customer sentiments is crucial for businesses. This project focuses on building a real-time sentiment analysis system that monitors social media channels for customer feedback, opinions, and sentiments. By leveraging Azure Event Hubs for data ingestion, Azure Stream Analytics for real-time processing, and Azure Cognitive Services for sentiment analysis, this system can provide immediate insights into how customers feel about a brand, product, or service. The sentiment analysis model will categorize posts or comments into positive, negative, or neutral sentiments. The processed data will be stored in an Azure SQL Database for reporting and further analysis.

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CAPSTONE PROJECTS

REAL-TIME CUSTOMER SUPPORT ANALYTICS

Objective: Implement a real-time customer support analytics system to monitor customer interactions and improve support services.

Description: This project involves building a system that analyzes customer interactions with a support platform in real-time. By utilizing Azure Event Hubs for data ingestion and Azure Stream Analytics for processing, the system can track customer queries, response times, satisfaction scores, and other relevant metrics. The processed data can be stored in an Azure SQL Database for reporting and analysis. Power BI can be used to create real-time dashboards for monitoring support performance. The project aims to enhance customer support services and provide insights for continuous improvement.

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CAPSTONE PROJECTS

REAL-TIME E-COMMERCE RECOMMENDATION ENGINE

This project involves creating a recommendation system that analyzes user behavior, preferences, and interactions in real-time to suggest relevant products. By utilizing Azure Event Hubs for data ingestion, Azure Stream Analytics for processing and Apache Spark for recommendation algorithms, the system can provide personalized product recommendations instantly. The processed data will be stored in an Azure SQL Database for reporting and analysis. Additionally, a web interface can be developed for users to view and interact with real-time recommendations.


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CERTIFICATIONS YOU CAN PURSUE AFTER COMPLETING THE COURSE

Azure Data Engineer (Dp-203) Certification

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Eligibility Criteria

- Bachelor's degree in any field
- Familiarity with database concepts and SQL.
- Basic understanding of data processing.
- Working Professionals >1yrs
- Optional: Prior experience in data engineering or related fields.
- Basic computer literacy and operating system knowledge.
- Preferred: Familiarity with cloud platform like Azure

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Certification

Industry Recognised Certification

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Trainer Profile

Sateesh Pabbathi

Author & Cloud Expert

Linkedin Profile

With over two decades of industry experience, he stands as a seasoned expert in the realm of cloud computing. Holding certifications as a Microsoft Certified Trainer, AWS Certified Data and DevOps Engineer, GCP Certified Architect, Kubernetes Certified Administrator and more, his expertise is both broad and deep.

Among his notable achievements is the curation and design of courses for prominent Ed-Tech platforms like Upgrad,Simplilearn and more. Through these endeavors, he has successfully trained a substantial cohort of over 4000 students in the dynamic domain of Cloud Computing, arming them with the skills and knowledge necessary for thriving in this rapidly evolving landscape.

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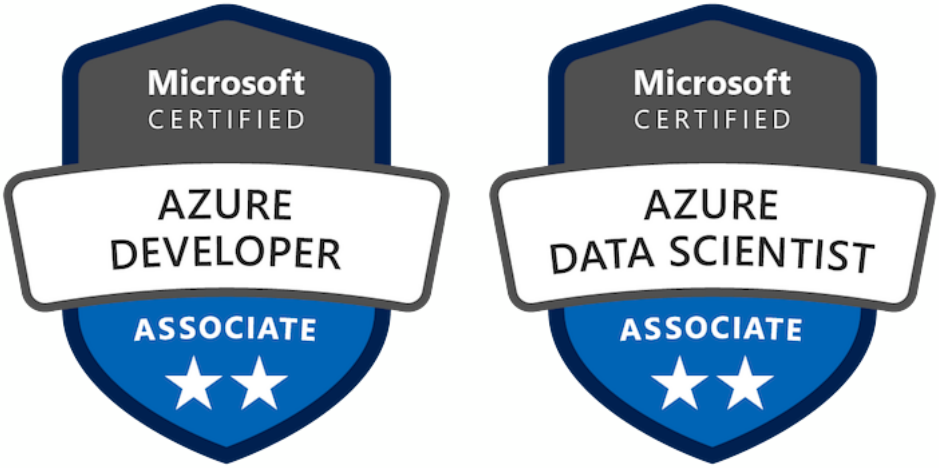
Trainer Profile - Certifications



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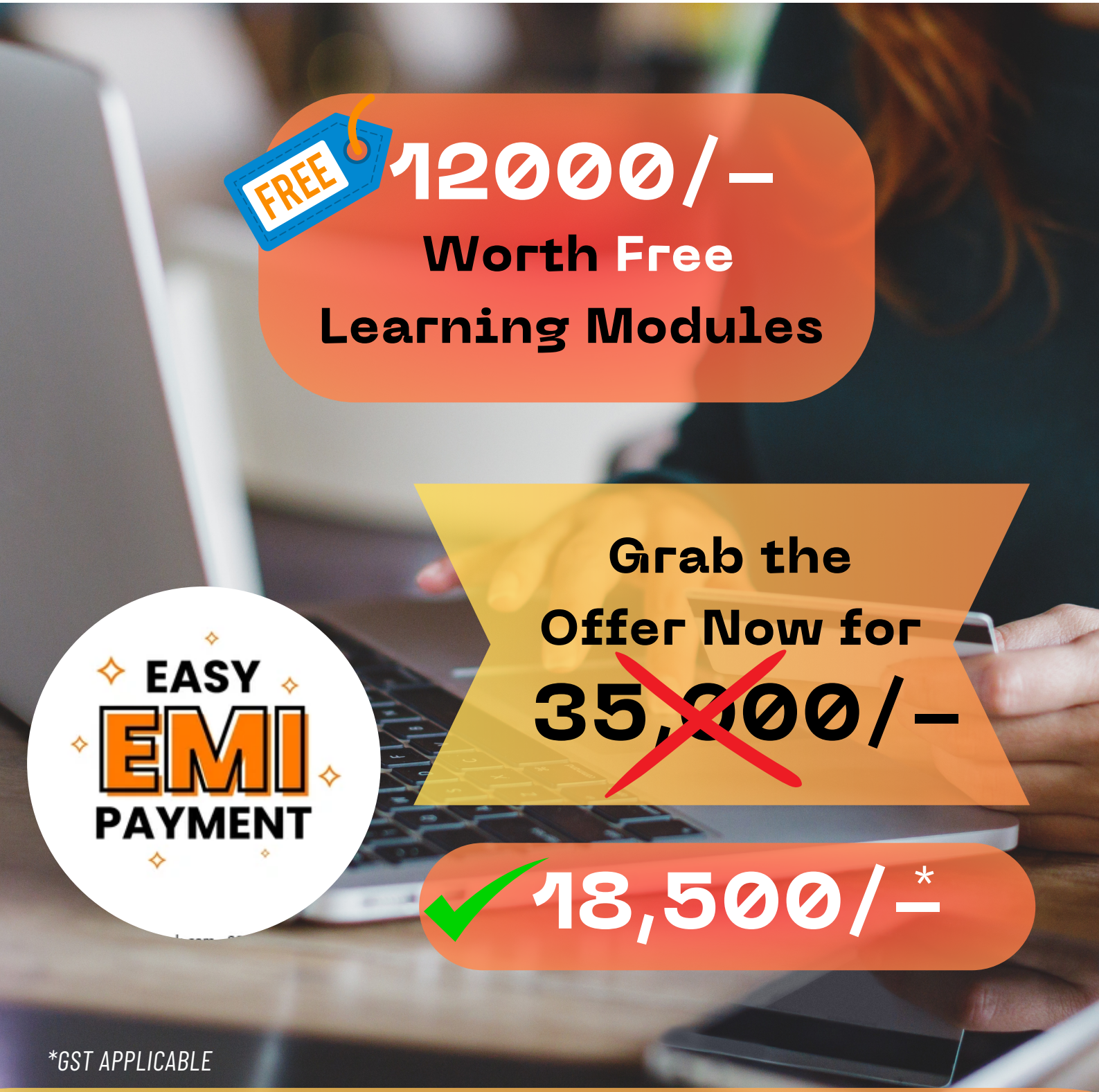

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