BIZTECH LABS

Data Engineering with Microsoft Fabric (DP-700 Certification)

8-Week Hands-On Programme | 24 Live Online Sessions | 48 Hours of Training

Course Duration & Schedule

Key Dates

Starts: Monday, 20 May 2025

Ends: Friday, 12 July 2025

Live Sessions: Every **Monday, Wednesday & Friday**

Time: 6:00 PM BST onwards

Session Duration: 2 hours per session

Total Live Hours: 48 hours (24 sessions)

Course Overview

Master the full lifecycle of data engineering—from raw data to insight—using modern tools including SQL, Python, PySpark, and Microsoft Fabric. This 8-week live programme is designed to take learners from beginner to job-ready, while also preparing them for the **Microsoft DP-700: Fabric Data Engineering Associate** certification.

Who Is This Course For?

- **Aspiring Data Engineers** starting from scratch (Beginners)
- **IT Professionals** pivoting into data roles
- **Career Switchers** from non-technical backgrounds like finance, HR, or education
- **Anyone** looking to gain deep, practical knowledge in data engineering with Microsoft Fabric

What You'll Learn

Foundations of Data Engineering

- What is Data Engineering?
- Key responsibilities and tools used
- Data Engineering vs. Data Science vs. Analytics
- The lifecycle of a modern data engineering project
- Understanding cloud-first architectures: Data warehouses, data lakes, lakehouses
- Microsoft Fabric platform overview
- Setting up your learning environment

SQL for Data Engineering

- SQL fundamentals: SELECT, WHERE, ORDER BY
- Aggregation functions: COUNT, SUM, AVG, MIN, MAX
- GROUP BY and HAVING for summarizing data
- Joining datasets: INNER, LEFT, RIGHT, FULL JOINS
- Subqueries and CASE statements
- Common Table Expressions (CTEs)
- Query optimization strategies
- Hands-on labs using real-world sample databases

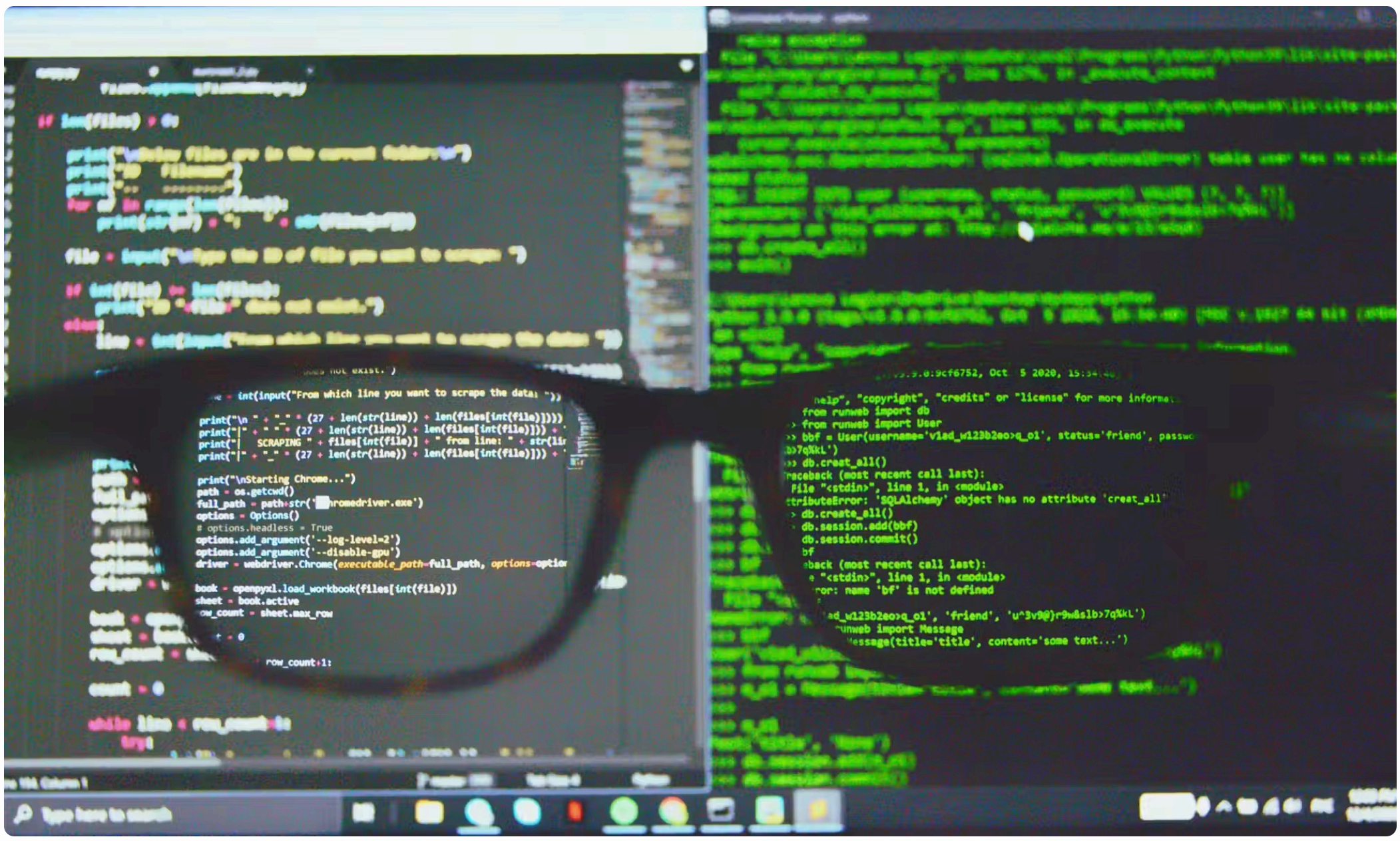
Advanced Data Engineering Skills

Python for Data Manipulation & ETL

- Python syntax and core programming concepts
- Working with data: Lists, dictionaries, data frames
- Reading and writing files (CSV, JSON)
- Data cleaning and transformation with Pandas
- Exploratory data analysis basics
- Using APIs to fetch external data (GET/POST requests, parsing JSON)
- Connecting Python to SQL databases
- Building mini ETL pipelines (Extract → Transform → Load)
- Automating data flows using Python scripts

Big Data with PySpark

- Introduction to Apache Spark and distributed computing
- Working with Spark DataFrames
- Transformations and actions in PySpark
- Creating UDFs (User Defined Functions)
- Optimizing jobs with caching and partitioning
- Spark SQL and big data query techniques
- Handling large datasets efficiently
- Lab-based practice using Spark clusters



Microsoft Fabric & Certification

Microsoft Fabric Deep Dive

- Overview of Microsoft Fabric and OneLake
- Creating and managing workspaces
- Connecting data sources: APIs, cloud storage, on-prem data
- Ingestion pipelines using Dataflows Gen2 and Pipelines
- Scheduling, monitoring, and troubleshooting dataflows
- Data transformation using Delta Lake and schema management
- Role-Based Access Control (RBAC), Row-Level Security (RLS)
- Data governance: lineage tracking, auditing, and compliance
- Using Fabric's Lakehouse and Data Warehouse features
- Hands-on labs in Microsoft Fabric environment

DP-700 Certification Preparation

- DP-700 exam format, skills measured & question types
- Overview of Microsoft Learn resources and practice modules
- Mapping key skill areas: Ingest, Prepare, Model, Serve, Monitor
- Practice case studies and real-world scenarios
- Mock test with 20+ sample questions
- Exam-taking strategies and time management tips

Capstone Project

- Build an end-to-end data pipeline using Microsoft Fabric
- Choose from industry-inspired project topics
- Include source ingestion, transformation, modeling & secure delivery
- Publish code on GitHub
- Create a 5-minute demo video presentation
- Final feedback from instructor and peers

Course Outcomes & Application

- Understand and apply core data engineering principles
- Be able to clean, transform and manage data using Python and SQL
- Handle large-scale data with Spark and Fabric pipelines
- Design secure, production-ready data solutions
- Be ready to clear the DP-700 Certification Exam
- Complete a full data engineering project for your portfolio

Kickstart your data engineering journey.

No technical background required, just motivation to learn.

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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