



# Training Course for Microsoft Fabric

Level One and Level Two

## Day 1: Microsoft Fabric Level One

### Module 1: Data Engineering

**Overview:** This module introduces the fundamentals of data engineering with Microsoft Fabric, focusing on designing systems to help you organize and analyze large volumes of data effectively.

**Business Value:** By mastering data engineering, businesses can ensure data consistency, integrity, and accessibility, which are crucial for making informed decisions and optimizing operations.

- Introduction to Data Engineering
- Understanding Data Pipelines
- Data Integration Techniques
- Managing Data Quality
- Hands-on Lab: Building Your First Data Pipeline

### Module 2: Data Science

**Overview:** Dive into the world of data science and explore AI tools to build end-to-end workflows, enrich data, and improve insights.

**Business Value:** Leveraging data science enables businesses to gain deeper insights, predict trends, and drive innovation, leading to competitive advantages and better customer experiences.

- Introduction to Data Science
- Utilizing AI Tools in Data Science
- Building End-to-End Workflows
- Data Enrichment Techniques
- Improving Insights through Data Science
- Hands-on Lab: Creating a Data Science Workflow

### Module 3: Data Warehouse

**Overview:** Learn how to scale compute and storage independently with industry-leading SQL performance.

**Business Value:** Efficient data warehousing allows businesses to handle large datasets, improve query performance, and support real-time analytics, thereby enhancing decision-making processes.

- Introduction to Data Warehousing
- Scaling Compute and Storage
- Understanding SQL Performance
- Optimizing Data Storage
- Hands-on Lab: Setting Up a Data Warehouse

## Module 4: Business Intelligence

Overview: Transform your data into visually immersive, interactive insights and embed them in Microsoft 365.

Business Value: Business intelligence tools empower organizations to visualize data in meaningful ways, uncover hidden patterns, and make data-driven decisions.

- Introduction to Business Intelligence
- Creating Interactive Reports
- Visualizing Data Effectively
- Integrating BI with Microsoft 365
- Hands-on Lab: Building Business Intelligence Dashboards

## Module 5: Copilot in Fabric

Overview: Accelerate productivity and creativity with natural-language prompts in notebooks, pipelines, and reports.

Business Value: Utilizing Copilot in Fabric enhances user productivity and creativity by simplifying complex tasks and enabling rapid prototyping and iteration.

- Introduction to Copilot in Fabric
- Using Natural-Language Prompts
- Enhancing Notebooks and Pipelines
- Generating Reports with Copilot
- Hands-on Lab: Leveraging Copilot for Productivity

## Module 6: Workspaces and Security

Overview: Understand how to manage workspaces and ensure security within Microsoft Fabric.

Business Value: Effective workspace management and robust security measures protect sensitive data, ensure compliance, and maintain organizational integrity.

- Introduction to Workspaces in Microsoft Fabric
- Configuring Security Settings
- Managing User Access and Permissions
- Best Practices for Data Security
- Hands-on Lab: Securing Your Workspace



## Day 2: Microsoft Fabric Level Two

### Module 1: Advanced Data Engineering

**Overview:** This module delves deeper into advanced data engineering concepts with a focus on optimizing and scaling data systems.

**Business Value:** Advanced data engineering techniques enable businesses to handle increasing data volumes and complexity, ensuring scalability and efficiency.

- Advanced Data Integration Techniques
- Optimizing Data Pipelines
- Scaling Data Systems
- Data Governance and Compliance
- Hands-on Lab: Advanced Data Pipeline Optimization

### Module 2: Advanced Data Science

**Overview:** Explore advanced data science methodologies and tools for more sophisticated data analysis and predictive modeling.

**Business Value:** Advanced data science capabilities allow businesses to perform complex analyses, predict future trends, and optimize operations based on data-driven insights.

- Advanced AI Tools and Techniques
- Predictive Modeling and Forecasting
- Deep Learning and Neural Networks
- Improving Model Accuracy
- Hands-on Lab: Building Advanced Predictive Models

### Module 3: Advanced Data Warehouse

**Overview:** Master advanced data warehousing techniques to further optimize performance and storage efficiency.

**Business Value:** Advanced data warehousing ensures that businesses can sustain performance and manage large-scale data operations effectively.

- Advanced Data Partitioning Techniques
- Optimizing Query Performance
- Managing Large-Scale Data
- Integrating Data Warehousing with BI Tools
- Hands-on Lab: Advanced Data Warehouse Optimization

## Module 4: Advanced Business Intelligence

Overview: Learn advanced business intelligence techniques to create more interactive and insightful data visualizations.

Business Value: Advanced BI techniques provide deeper insights, enhance reporting capabilities, and support strategic decision-making.

- Advanced Data Visualization Techniques
- Creating Interactive BI Applications
- Customizing Reports and Dashboards
- Embedding BI in Business Processes
- Hands-on Lab: Advanced BI Application Development

## Module 5: Advanced Copilot in Fabric

Overview: Harness the full potential of Copilot in advanced scenarios to further boost productivity and innovation.

Business Value: Advanced use of Copilot enables more complex automations and enhances user creativity, leading to faster development cycles and innovative solutions.

- Advanced Natural-Language Processing Techniques
- Automating Complex Pipelines
- Enhancing Collaborative Workflows
- Customizing Copilot Templates
- Hands-on Lab: Advanced Copilot Implementations

## Module 6: Advanced Workspaces and Security

Overview: Explore advanced strategies for managing workspaces and securing data in Microsoft Fabric.

Business Value: Advanced workspace and security management ensures robust protection of sensitive data and enhances compliance with industry standards.

- Advanced Workspace Management
- Implementing Advanced Security Protocols
- Monitoring and Auditing Access
- Best Practices for Data Protection
- Hands-on Lab: Advanced Security Configurations

This comprehensive training course is designed to equip participants with the essential and advanced skills needed to effectively use Microsoft Fabric for data engineering, data science, data warehousing, business intelligence, and more. By the end of this course, participants will have a robust understanding of how to leverage these tools to drive business value and innovation.



## Audience

This comprehensive training course is tailored for data engineers, data scientists, data warehousing professionals, business intelligence analysts, and other IT professionals involved in managing workspaces and securing data within Microsoft Fabric.

## Examples of Their Workloads

- Data Engineers: Designing and implementing data pipelines, transforming raw data into usable formats, and ensuring data integrity and quality.
- Data Scientists: Developing and deploying machine learning models, performing complex data analysis, and deriving actionable insights from large datasets.
- Data Warehousing Professionals: Managing large-scale data storage systems, optimizing data retrieval processes, and ensuring efficient data organization and access.
- Business Intelligence Analysts: Creating dashboards and reports, conducting data analysis to support decision-making, and ensuring data visualization aligns with business needs.