

# Comprehensive Data Mastery Curriculum

## Program Overview

This comprehensive 6-month program is designed to equip participants with technical expertise, practical experience, and career-readiness skills to excel in data-centric roles. The curriculum emphasizes hands-on learning, real-world applications, and professional development.

### 1. SQL and Data Management

- Writing and executing SQL queries.
- Database schema design and optimization.
- Advanced SQL techniques: JOINS, subqueries, window functions, and CTEs.

Tools: Microsoft SQL Server.

### 2. Mastering Microsoft Fabric and Power Platform

- Navigating Microsoft Fabric for data integration and analytics.
- Data transformation using Power Query.
- Data modeling with DAX.
- Building low-code/no-code apps with Power Apps.
- Automating workflows using Power Automate.
- Report development with Power BI.

Tools: Microsoft Fabric, Power Platform (Power BI, Power Apps, Power Automate).

### 3. Data Analysis and Problem-Solving

- Exploratory Data Analysis (EDA).
- Data-driven decision-making.
- Basic predictive analytics.
- Understanding data anomalies and root cause analysis.

Tools: Excel, Python, SQL.

### 4. Project Collaboration and Agile Practices

- Documenting and collaborating effectively using Confluence.
- Agile task management with Azure DevOps.
- Using SharePoint for team collaboration.
- Understanding the Agile and Scrum frameworks.

Tools: Confluence, Azure DevOps, SharePoint.

### 5. API Integration and Testing

- Understanding API requests and responses.
- Using Postman for API testing and debugging.
- Integrating APIs with data workflows.

Tools: Postman.

## **6. Data Storytelling and Visualization**

- Creating impactful data visualizations.
- Developing compelling data narratives.
- Presenting findings to varied audiences.

Tools: Power BI, Canva, PowerPoint.

## **7. Personal Branding and Career Development**

- Building a professional online presence on LinkedIn and GitHub.
- Resume crafting and portfolio building.
- Networking with industry professionals.

Tools: LinkedIn, GitHub, WordPress, Canva.

## **8. Capstone Project**

- Real-world data analysis and visualization.
- Documentation and presentation of findings.
- Team collaboration using Azure DevOps and Confluence.

Tools: Microsoft Fabric, Power BI, Confluence, Azure DevOps.