

Microsoft Data and AI Essentials — Overview & Course Structure

Duration: 1 Day

Description:

Microsoft Data and AI Essentials is an introductory course or learning path designed to build foundational understanding of data, analytics, and artificial intelligence (AI) services within the **Microsoft Azure** ecosystem.

This course is ideal for:

- Beginners to Azure Data & AI
- Business users, junior data professionals, or technical decision makers
- Individuals preparing for more advanced Azure certifications

Microsoft Data & AI Essentials

Module 1: Introduction to Azure Data & AI

- Microsoft's vision for Data & AI
- Data to AI lifecycle: ingest, store, process, analyze, model, act
- Overview of key Azure services:
 - Azure Synapse Analytics
 - Azure Data Lake Storage
 - Azure Machine Learning
 - Power BI
 - Azure OpenAI

Demo: Navigating Azure Portal

Module 2: Data Fundamentals on Azure

- Structured vs. unstructured data
- Databases: Azure SQL, Cosmos DB, Azure Data Explorer
- Data pipelines and integration: Azure Data Factory
- Governance & compliance: Microsoft Purview

Activity: Choose the right Azure storage/database solution

Module 3: AI & Machine Learning Essentials

- What is AI? Common AI use cases
- Azure AI services overview:
 - Azure Cognitive Services (vision, speech, language, decision)
 - Azure Machine Learning
 - Azure OpenAI Service

Demo: Build a no-code text analysis app using Azure Cognitive Services

Module 4: Analytics & Business Intelligence

- Introduction to Power BI
- Integrating Power BI with Azure data sources
- Azure Synapse and real-time analytics

Activity: Create a basic Power BI dashboard with sample data

Module 5: Responsible AI & Governance

- Microsoft's Responsible AI principles
- Data privacy, ethics, and transparency
- Overview of AI governance tools (Purview, Compliance Manager, Responsible AI dashboard)