



Microsoft Azure Big Data Analytics Solutions

55224-1; 2 Days, Instructor-led

Course Description

55224A-1 is a two-day instructor-led course is intended for data professionals who want to expand their knowledge about creating big data analytic solutions on Microsoft Azure. Students will learn how to design solutions for batch and real-time data processing. Different methods of using Azure will be discussed and practiced in lab exercises, such Azure CLI, Azure PowerShell and Azure Portal. 55224A-1 labs and exercises cover the first two objectives of exam 70-475 (Designing Big Data batch, interactive & real-time solutions). The other two objectives (Designing Machine Learning and cloud analytics solutions) are covered in 55224A-2.

Course Objectives

After completing this course, students will be able to:

- Design big data batch processing and interactive solutions
- Design big data real-time processing solutions
- Design Machine Learning solutions
- Operationalize end-to-end cloud analytics solutions

Audience

This course is intended for experienced data professionals who design big data analytics solutions on Microsoft Azure.

Prerequisite

Before attending this course, students must have:

- Experience processing and querying bulk data
- Experience analyzing real-time and historical data
- Experience using SQL and data analysis / visualization tools (e.g. Power BI)
- Experience using PowerShell (Note: A basic PowerShell tutorial is included in the course)

Course Outline

Module 1: Design big data batch processing and interactive solutions

This module explains how to load data into Microsoft Azure for batch processing.

Lessons

- Ingest data for batch processing
- Design for batch processing
- Design interactive queries
- Review

Lab: Design big data batch processing and interactive solutions

- Load data into Microsoft Azure
- Prepare data for batch processing
- Query the data

After completing this module, students will be able to:

- Load data into Microsoft Azure
- Prepare data for batch processing
- Query the data

Module 2: Design big data real-time processing solutions

This module explains how to load data into Microsoft Azure for real-time processing.

Lessons

- Ingest data for real-time processing
- Design for real-time processing
- Design interactive queries for big data
- Review

Lab: Design big data real-time processing solutions

- Load data into Microsoft Azure
- Prepare data for real-time event processing
- Visualize the data

After completing this module, students will be able to:

- Load data into Microsoft Azure
- Prepare data for real-time event processing

- Visualize the data

Module 3: Design Machine Learning solutions

This module explains how to use machine learning models to automate data analysis.

Lessons

- Create workspaces
- Select models and query parameters
- Publish web services
- Review

Lab: Design Machine Learning solutions

- Create workspaces
- Select models and query parameters
- Publish web services

After completing this module, students will be able to:

- Create and share workspaces
- Select models and query parameters
- Access the machine learning models

Module 4: Operationalize end-to-end cloud analytics solutions

This module explains how to use Azure Data Factory to centrally manage data from different sources.

Lessons

- Create a data factory
- Manage and Monitor the data factory
- Deploy end-to-end solutions using PowerShell
- Review

Lab: Operationalize end-to-end cloud analytics solutions

- Create a data factory
- Manage and Monitor the data factory
- Deploy end-to-end solutions using PowerShell

After completing this module, students will be able to:

- Create a data factory
- Manage and Monitor the data factory

- Deploy a data factory using PowerShell