

Course Syllabus

Microsoft Azure Big Data Analytics Solutions

Course #: 552241A

Number of Days: 2

Format: Instructor-Led

Certification Exams: 70-475

This course syllabus should be used to determine whether the course is appropriate for the students, based on their current skills and technical training needs.

Course content, prices, and availability are subject to change without notice.

Elements of this syllabus are subject to change.

552241A 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 as Azure CLI, Azure PowerShell and Azure Portal.

552241A labs and exercises will cover the first two objectives of exam 70-475 (Designing Big Data batch, interactive & real-time solutions). The other objective (Operationalize end-to-end cloud analytics solutions) is covered in 552242A.

Audience

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

At Course Completion

After completing this course, students will be able to:

- Design big data batch processing and interactive solutions (552241A)
- Design big data real-time processing solutions (552241A)
- Operationalize end-to-end cloud analytics solutions (552242A)

Prerequisites

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.)

Additional Reading

552242A - Operationalize Cloud Analytics Solutions with Microsoft Azure

Module 1: Design big data batch processing and interactive solutions (552241A)

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

Lessons
<ul style="list-style-type: none">▪ Module Objectives▪ Lesson 1: Ingest data for batch processing▪ Lesson 2: Design for batch processing▪ Lesson 3: Design interactive queries▪ Review
Lab 1: Design big data batch processing and interactive solutions
<ul style="list-style-type: none">▪ Exercise 1: Load data into Microsoft Azure▪ Exercise 2: Prepare data for batch processing▪ Exercise 3: Query the data

After completing this module, students will be able to use PowerShell to:

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

Module 2: Design Big Data Real-Time Processing Solutions (552241A)

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

Lessons
<ul style="list-style-type: none">▪ Module Objectives▪ Lesson 1: Ingest data for Real-Time Processing▪ Lesson 2: Designing for Real-Time Processing▪ Lesson 3: Design interactive queries for Big Data▪ Review
Lab 2: Design Big Data Real-Time Processing Solutions
<ul style="list-style-type: none">▪ Exercise 1: Load data into Microsoft Azure▪ Exercise 2: Prepare data for Real-Time Event Processing▪ Exercise 3: Visualize the Data

After completing this module, students will be able to use PowerShell to:

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

Module 3: Operationalize end-to-end cloud analytics solutions (552242A)

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

Lessons
<ul style="list-style-type: none">▪ Module Objectives▪ Lesson 1: Create a data factory▪ Lesson 2: Create a data-driven workflow▪ Lesson 3: Monitor and Manage the data factory▪ Lesson 4: Move, Transform and Analyze Data▪ Lesson 5: Design a deployment strategy for an end-to-end solution▪ Review
Lab 3: Operationalize end-to-end cloud analytics solutions
<ul style="list-style-type: none">▪ Exercise 1: Create a data factory▪ Exercise 2: Create a data-driven workflow▪ Exercise 3: Monitor and Manage the data factory▪ Exercise 4: Move, Transform and Analyze Data▪ Exercise 5: Design a deployment strategy for an end-to-end solution

After completing this module, students will be able to use PowerShell to:

- Create, Manage & Monitor a data factory
- Create a data driven workflow
- Move, Transform and Analyze Data
- Create a deployment strategy using PowerShell

Appendix B: PowerShell for Technology Professionals (552241A Optional)

This module explains how to use PowerShell to administer computer, network, application and Azure resources.

Lessons
<ul style="list-style-type: none">▪ Introduction▪ Compared to Other Scripting Languages▪ Configuring and Using PowerShell▪ Creating and Running Scripts▪ Administering Local Resources▪ Administering Network Resources▪ Resolve PowerShell Scripting Problems.
Lab B: Operationalize end-to-end cloud analytics solutions
<ul style="list-style-type: none">▪ Exercise 1: Use PowerShell to get Computer Information▪ Exercise 2: Use PowerShell documentation to understand and use cmdlets▪ Exercise 3: Create and execute scripts▪ Exercise 4: Configure and test Remote Management▪ Exercise 5: Create and Azure VM with Azure PowerShell

After completing this module, students will be able to use PowerShell to:

- Use PowerShell to get Computer Information
- Use PowerShell documentation to understand and use cmdlets
- Create and execute scripts
- Configure and test Remote Management
- Create and Azure VM with Azure PowerShell