DP-600: Microsoft Fabric Analytics Engineer
Trainer Preparation Guide

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Contents

Purpose

This document is for Microsoft Certified Trainers (MCTs) teaching the DP-600: Microsoft Fabric Analytics Engineer. This document contains general information for preparation and awareness. Information about specific topics is included in the student content and the instructor Microsoft PowerPoint Notes. This course is designed for students who are planning to take the corresponding certification exam, or those who are performing Analytics Engineer tasks in their daily job.

Microsoft Fabric Analytics Engineer Role Definition

Both the certification exam and the courseware are based on the Analytics Engineer role. If students ask why some areas are covered and other areas are not, refer them to this role definition. There are other adjacent roles on a data team, such as Power BI Data Analyst and Data Engineer.

Analytics Engineers should have subject matter expertise in designing, creating, and deploying enterprise-scale data analytics solutions.

The responsibilities for this role include transforming data into reusable analytics assets by using Microsoft Fabric components, such as lakehouses, data warehouses, notebooks, dataflows, data pipelines, semantic models, and reports.

Analytics engineers implement analytics best practices in Fabric, including version control and deployment.

Fabric Analytics Engineers partner with other roles, such as: Solution Architects, Data Engineers, Data Scientists, AI Engineers, Database Administrators, and Power BI data analysts.

In addition to in-depth work with the Fabric platform, Analytics Engineers need experience with: data modeling, data transformation, Git-based source control, exploratory analytics, and languages, including Structured Query Language (SQL), Data Analysis Expressions (DAX), and PySpark.

Audience Profile

The primary audience for this course is data professionals with experience in data modeling, extraction, and analytics. DP-600 is designed for data professionals who want to use Microsoft Fabric to create and deploy enterprise-scale data analytics solutions.

Prerequisites

While there are no required prerequisites for taking this course, it is recommended that students have:

- A foundational knowledge of core data concepts and how they're implemented using Microsoft data services. For more information see Azure Data Fundamentals.
- Experience designing and building scalable data models, cleaning and transforming data, and enabling advanced analytic capabilities that provide meaningful business value using Microsoft Power BI. For more information see Power BI Data Analyst.

Certification Exam

This course maps directly to and is intended to prepare students for the DP-600: Implementing Analytics Solutions Using Microsoft Fabric exam.

Certification exams measure your ability to accomplish certain technical tasks for a job role. Each study area has a percentage indicating the relative weight of the area on the exam. The higher the percentage, the more questions students are likely to see in that area.

Study Areas	Weights
Plan, implement, and manage a solution for data analytics	10-15%
Prepare and serve data	40-45%
Implement and manage semantic models	20-25%
Explore and analyze data	20–25%

This exam is not a prerequisite for any other exam, nor is it a part of any credential offering. It is a standalone exam offering.

Course Design

This course covers methods and practices for implementing and managing enterprise-scale data analytics solutions using Microsoft Fabric. Students will build on existing analytics experience and will learn how to use Microsoft Fabric components, including lakehouses, data warehouses, notebooks, dataflows, data pipelines, and semantic models, to create and deploy analytics assets. The course can be taken as a step in learning about roles in cloud data services and Microsoft Fabric such as Data Engineer or Data Scientist, before taking further Microsoft Fabric courses.

Learning Objectives

In this course students will learn how to:

- Plan, implement, and manage a solution for data analytics
- Prepare and serve data.
- Implement and manage semantic models.
- Explore and analyze data.

Preparing to teach the course

The next sections cover the main course components and how you can use them in class. This includes the Microsoft PowerPoint slides, knowledge check questions, reference links, and practice exercises. There is a lot of flexibility in how you use this content to create a great learning experience for your students.

The content for this course is organized into slide decks that roughly map to learning paths on Learn. There are 8 slide decks that cover the 4 core areas discussed above.

No	Slide Deck	Associated Content on Microsoft Learn
1	Introduction to data analytics on Azure	aka.ms/dp500-1
2	Model, query, and explore data in Azure Synapse	aka.ms/dp500-2
3	Prepare data for tabular models in Power BI	aka.ms/dp500-3
4	Design and build tabular models	aka.ms/dp500-4

5	Implement advanced data visualization techniques using Power BI	aka.ms/dp500-5
6	Implement and manage an analytics environment	aka.ms/dp500-6
7	Manage the analytics development lifecycle	aka.ms/dp500-7
8	Govern data across an enterprise	aka.ms/dp500-8

Hands-on Labs

Labs are provided for many lessons and can be found embedded in the associated Learn modules, as well as on GitHub. Most labs are estimated at 45 minutes. The lab instructions are in the Microsoft Learning Github repository. In addition to the lab instructions, any supplemental files like script and templates are also provided. The Microsoft Official Courseware page provides links to all lab instructions mapped to their associated ILT slide deck. Note that all DP-600 labs can be found in this repo, but not all labs in this repo are associated with DP-600.

In this course there are 15 required lab exercises. To complete the lab the students will need:

- An M365 account with the Fabric trial enabled
- Internet access

We also recommend you take the time to demonstrate topics as you go, and as discussion comes up and evolve around subjects.

Knowledge check questions

Knowledge check questions are provided at the end of each section in the slides. You might wish to supplement with questions of your own.

You can use these review questions in several ways:

- Have the students' pre-test before the course starts, and then at the end to show them what they have learned.
- As a group, go through the questions before moving on to another section.
- Interspace the questions into the content as you cover the applicable material.

Reference links

The course content may include many reference links. This is because the documentation is constantly being updated, and also for the MCT to use as reference, or an opportunity to link into a high-level overview of a certain feature:

- Before you teach the course, use the reference links to validate that the content is still current. Pay attention to capabilities and limits: for example, preview features and virtual machine (VM) sizes.
- Reference links have been added to your PowerPoint slides and instructor notes to make it easy for you to access more detailed information. Use these links to walk through details that are not covered in the content, and lengthy steps that have only been summarized in the content.

Group discussions

Consider initiating group discussion around certain topics. You can use the end-of section questions as conversation starters at any stage during the course delivery.

Course timing

The course content is designed to take four days to complete. While the content should not be particularly challenging, delivering the course on time will most likely be the biggest challenge you have. Remember you have discretion and flexibility to show a feature or area as you go, and this freedom should allow you to quicken or slow the course pace as you need. Also, based on the students' experience, you might be able to skip over or quickly go through certain topics or areas.

The agenda below is a suggested flow of content for each day. This is designed to allow for flexibility as to the depth in which topics are covered and the amount of time spent on each topic. Feel free to adjust as necessary.

Day	Time	PowerPoint	Labs
1	AM	1	no labs
1	PM	2	no labs
2	PM	3	3 labs
2	PM	4	0 labs
3	PM	5	2 labs
3	AM	6	2 labs
4	AM	7	
4	PM	8	

Class Interactivity

Typical comments:

Need more balance between lecture and hands-on, more discussion and question/answer, and lecture was too long.

Discussion:

Our goal in Microsoft Learning is to ensure there is at least a 50/50 mix of lecture/interactive elements. For DP-600 we provide a lot of opportunities to engage the students. For example, labs and review questions. Recently, open-ended discussion questions were added to the MCT Download Center.

Here are how some suggestions from our top trainers on how they incorporate interactivity in their classes.

Persona	Class interactivity approach
Instructor 1	• Frequently stop and ask open-ended questions. • Use Mentimeter or Office to display multiple-choice questions and review the student responses. • Let one of your advanced students share their screen and "drive" during the demonstration. Coach the student through the steps. • Have someone monitor the chat and let you know if there is a question.
Instructor 2	• Use a poll (or other signal) to determine if students are interested in or using a product or feature. • Ask how many students are planning to take the exam. Work that information into your presentation. • Ensure students can annotate your whiteboard. Have them participate by placing resources or linking items.

Summary:

To improve in this area, we ask that you limit the amount of lecture to less than half the class time. Supplement your lecture with demos, questions, and discussion. Try to engage the students in as many ways as possible. This interactivity will take longer, so be sure to account for that.

Resources

The main resource for students during this course is Microsoft Learn. Note that there are short links to each associated learning path located in the slide decks. A summary of the short links is as follows:

- aka.ms/DP600Exam
- aka.ms/DP600Course
- aka.ms/DP600StudyGuide
- aka.ms/DP600Labs
- aka.ms/DP600-1
- aka.ms/DP600-2
- aka.ms/DP600-3
- aka.ms/DP600-4
- aka.ms/DP600-5
- aka.ms/DP600-6
- aka.ms/DP600-7
- aka.ms/DP600-8

There are a lot of additional resources to help you and the student learn about Microsoft Fabric. We recommend you bookmark these pages and offer the list to your students:

- Fabric Community Forums. The Microsoft Fabric Community forums are very active. You can search the threads for a specific area of interest. You can also browse categories such as Power Query, Desktop, Developer topics, and more.
- Microsoft Learning Blog. Get the latest information on the certification tests and exam study groups.
- Microsoft Fabric Blog. Keep current on what's happening in Fabric, including what's in preview, what's generally available, and news and updates.

Connect with others

You also have the ability to connect directly with others preparing to teach the course or to get assistance if need be:

- MCT Lounge – Your one stop for all things MCT. Stay up to date with the latest MCT news, learn about upcoming events, find job opportunities, or connect with other MCTs around the world. You can also ask questions and discuss a variety of topics including courseware and certification with Microsoft through the MCT central forums.
- MOC Courseware Support – If there are problems with a course or you need to log a support ticket, contact the Official Support channel for MOC courses. This channel is monitored by support agents and is the quickest way to log your course support issue. It is the official support channel for courseware.

Feedback

This course differs from the traditional MOC courses that Microsoft has provided in the past. This course has a framework for you to work within. Take time to prepare and think about the value that only an instructor can bring to training. We hope to partner with you to provide an exceptional student experience and we welcome your feedback.

Happy learning!

Courseware Development Team