

Microsoft Azure Certified Data & AI Track

DP-900 : Microsoft Azure Data Fundamentals

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Introduction to the DP-900

Here you will learn more about the DP-900 and why it is an important topic to learn.

Introduction to the DP-900

The sky is the limit with the DP-900 Microsoft Azure Data Fundamentals to teach you everything you need to start working with and on the Cloud. The DP-900 certification is a great starting point for anyone interested in learning about data on Azure. The certification covers a range of topics, including data concepts, relational data, non-relational data, analytics workloads, and Azure services. You will also make first contact with important tools such as SQL, Python, and Power BI.

During the DP-900 course, you will learn about the core concepts of data and how data is used in organizations. You will also learn about the benefits of cloud computing, including scalability, agility, and cost savings. The course covers various Azure services that are used for data processing and storage, including various Azure SQL services, [Azure Cosmos DB](#), and [Azure Synapse Analytics](#).

If you want to venture into the world of data, but you're still feeling unsure about concepts such as "Cloud", "database", or "pipeline", the DP-900 is the course for you. This also means it is a great certification to pursue if you're still debating between being a data analyst or data engineer, or if you simply want to check what all the hype is about.

Why Azure?

Microsoft provides many tools to support your data engineering needs. Such tools are constantly adapted to the ever-changing world of data, all while making it very easy to combine them for the best possible solution. Some of our favorite solutions are Azure Cosmos DB and Azure Databricks. [Azure Cosmos DB](#) is a fully managed NoSQL database for modern app development. Working with it, you will learn to create highly responsive apps that are always online, with low latency and high availability. [Azure Databricks](#) is a data analytics platform. Both services are used to process, store, clean, share, analyze, and model data. Because Microsoft has a variety of technologies to offer, you can easily build efficient data models. You can then amplify them by integrating artificial intelligence and big data.

Why Complete DP-900 and Get into SQL and Power BI?

In today's world, data is everywhere, and businesses of all sizes are collecting vast amounts of data every day. The ability to store, process, and analyze this data is crucial to gain insights into business operations, customers, and markets.

The Cloud has revolutionized how we store, access, and share data. This network of remote servers allows individuals and organizations to store and access their data and applications over the internet. The cloud offers a more flexible, cost-effective, and scalable solution for data storage and management, in contrast to the costly, complex, and limited in their scalability of on-premise data storage. Knowing how to work with the cloud is important because it has become the de facto standard for data storage and processing in today's digital landscape. By mastering cloud technologies, you can unlock new opportunities for innovation and growth, and help their organizations stay competitive in a rapidly changing world.

Helpful Definitions

Structured vs. Unstructured

Structured data is specific and is stored in a predefined format. On the other hand, unstructured data can come in many formats: videos, sensor data, audio files, etc. Structured data relies on a hierarchy while unstructured data does not.

Pipeline

A series of data processing steps. The input of a step is the output of the previous one.

After becoming DP-900 certified, you can pursue various roles in the data industry, such as Data Analyst, Data Engineer, Business Intelligence Developer, and Cloud Solutions Architect. DP-900 certification demonstrates proficiency in the fundamentals of data and the Cloud, which is increasingly in demand in today's job market. If you want to pursue a tech career, DP-900 is a very strong start.

One tool you will encounter is **SQL**, or Structured Query Language, a very useful programming language. SQL is used to manage relational databases and perform operations on their data. For database administrators, SQL is the main way to create a database, and it keeps up-to-date. As a data engineer, you will follow the work of the administrators and use SQL to find insights in your database, as well as to perform the **ETL** (Extract – Transform – Load) process. Techionista has an [SQL guide](#) as well.

You will also dive into Power BI, which is a business analytics tool that allows individuals and organizations to create interactive visualizations and reports with their data. This cloud-based platform provides a suite of data connectors, visualization options, and collaboration features. With Power BI, users can connect to various data sources, clean and transform data, create compelling visualizations, and share their insights with others. And you've guessed it! Techionista has a [guide on Power BI](#) as well.

Why is Obtaining this Certification Important?

This certification guides you through everything that is involved in **data on the Cloud**. After you obtain this certification, you will know the 101s of data, but also how to work with relational and non-relational data, all the way to analytical pipelines. Azure is a very rapidly growing cloud computing platform, giving you an edge if you want to work more with data. The DP-900 is an entry-level certification, so it should help you decide whether cloud computing is something you're interested in.

Helpful Definitions

Relational and non-relational

Relational data refers to data that is structured in tables. These have predefined relationships between them, with each table representing a specific entity or concept, and columns representing attributes or characteristics of that entity.

Non-relational data refers to data that is not structured in tables with predefined relationships between them. Non-relational databases are often used for storing and processing unstructured or semi-structured data, such as social media posts or videos. They can also provide more flexibility and scalability than traditional relational databases.

Learning materials for the DP- 900

Here you will learn more about learning materials for the DP-900.

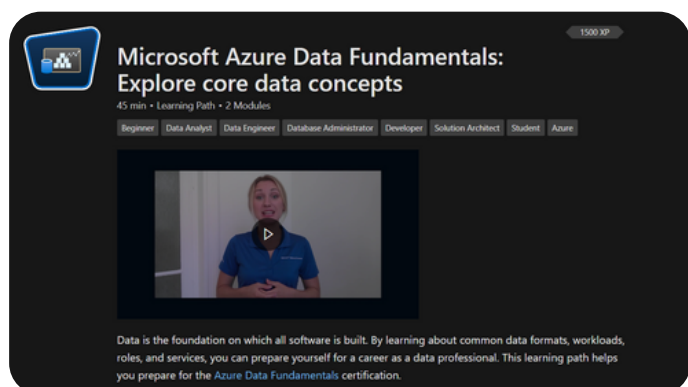
What to Learn

In this section, we'll cover the mandatory learning materials that prepare you for the DP-900 exam. In a later section, we will also share some recommendations for additional resources that you can use to expand your knowledge.

Mandatory Learning Materials

To help you learn the hard skills needed as a Microsoft data professional, we will use the tools listed below. For more information about these tools, check out our Starter Guide which can be found in the file folder of the general channel.

Microsoft Learn



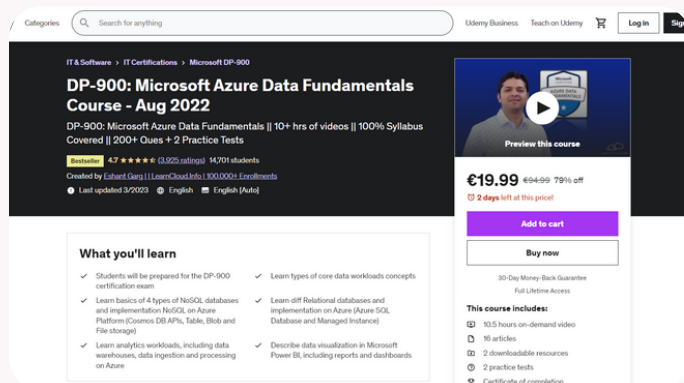
Microsoft Learn provides free interactive, hands-on training content continuously updated by Microsoft. This is especially useful when preparing for Microsoft Certifications, as you can be confident that you are always learning the latest updated content. With over 1000+ courses available on the platform, you can learn a variety of topics. Microsoft Learn offers single modules and learning paths that combine single modules, allowing you to follow a step-by-step learning journey.

The learning path that you will complete for the DP-900 is:

- [Microsoft Azure Data Fundamentals: Explore core data concepts](#)
- [Microsoft Azure Data Fundamentals: Explore relational data in Azure](#)

- [Microsoft Azure Data Fundamentals: Explore non-relational data in Azure](#)
- [Microsoft Azure Data Fundamentals: Explore data analytics in Azure](#)

Udemy



Udemy offers online on-demand courses in video format for many topics, including the Microsoft certification exams. The course that we've selected for the DP-900 is the: [DP-900: Microsoft Azure Data Fundamentals Course – Aug 2022](#) by Eshant Garg. This course includes practice tests and demo resources and will help you

- Prepare for the DP-900 certification exam;
- Learn the basics of NoSQL databases;
- Learn analytics workloads on Azure;
- Learn types of core data workloads concepts;
- Learn about relational databases and how to implement them on Azure;
- And more!

Additional Learning Materials

Below you will find some additional information resources that will help you with your Data Fundamentals exam.

- The article gives a few tips and tricks on the DP-900 exam. – [Medium](#)
- Check out [this website](#) for a brief explanation of the exam and the possible job descriptions that you could pursue after it. They even have a 4-hour video covering the certification!
- [This website](#) also has a very depth explanation about why you should take the DP-900. As this is an entrance certification, it never hurts to be clear about the path in front of you!
- [Here](#) is a brief introduction to data, with links to more in-depth articles as well! [Here](#) is a very similar piece for cloud computing.

How to prepare for the DP-900

Here you will learn more about how to study and prepare for the DP-900 exam.

What Will the Exam Test?

This exam measures your ability to accomplish the following technical tasks: describing core data concepts, working with relational data, non-relational data, and analytical pipelines on Azure. For a detailed description of what the exam tests, have a look at “skills measured” in the [DP-900 Exam Study Guide \(microsoft.com\)](#).

Scheduling your Exam

When to schedule your exam?

It's good to follow the DP-900 content if you want to get foundational knowledge in the world of data. If you want to go one step further and earn a certification to add to your portfolio, here are a few tips on how to tackle the DP-900 exam.

Firstly, it is good to keep in mind that you should only schedule the exam when you are ready to take it, as this will increase your chances of passing. Registering for the exam gives you one chance to pass it, so it is a good idea to prepare thoroughly beforehand. Every resit will require you to pay the exam fee again.

How to schedule your exam?

You can schedule your exam quite far in the future, so you can make use of this if you do not feel quite ready yet. If you unexpectedly won't be able to take the exam on this date, you can then reschedule (have a look at the Microsoft website for the specific rules as these do change from time to time). You can schedule your exam yourself with Pearson VUE, a provider of global computer-based tests. Pearson VUE provides licensure and certification exams for companies such as Microsoft, Oracle, HP and many more. You will find step-by-step instructions on how to schedule your exam using Pearson VUE in the [Pearson VUE guide](#). You will need to be logged into your Techionista account to view this guide.

Preparing for the Exam

Once you have committed to a date and scheduled your exam, it is time to start preparing for it! Our best advice? Practice, practice, practice! We would recommend that you practice with as many exam questions as you can. Start with reviewing sample questions that can help you prepare for the types of questions you can expect to see on the exam. You can find sample questions on the Microsoft website.

What to Expect During the Exam?

Where will you take the exam?

You can take the online version of the exam from your home/office. Alternatively, you can arrange to take the exam in an official Microsoft exam center when registering for the exam.

What will the exam look like?

You can expect around 40 to 60 multiple-choice questions. You have 45 minutes to complete the exam. Seat duration is 65 minutes which refers to the amount of time that you should allocate for the exam. It includes the time needed to review the instructions, read and accept the NDA, complete the exam questions, and provide comments after completing it (if you choose to do so).

When do you pass the exam?

You are required to score a minimum of 700 to pass the exam. Anyone scoring less than this mark will be considered a fail. Just on submission of the paper, your result will be declared within a few minutes. Your scorecard will contain details including overall performance in the exam, PASS/FAIL status, a bar chart demonstrating your performance in key areas of the exam, together with the instructions on exam results interpretation.

To learn more about:

- [Microsoft exam scores](#)
- [Exam duration, breaks, and question types](#)
- [Register and schedule an exam](#)
- [Testing your computer's specifications](#)
- [Exam policies and FAQs](#)

Questions?

Here you will find more information about where to ask questions and find help.

Where to go with questions?

A part of becoming a data analyst, data engineer, or data scientist is having good problem-solving skills. Throughout the track, you may run into situations where you feel stumped and need help finding an answer. In order to practice great problem-solving skills there are a few avenues of support we recommend trying before using the Question Form provided by Techionista. Here are the avenues available to you that can help you find answers to many problems:

Your favorite search engine

Google (or your favorite search engine) will be your best friend during this track! If you find yourself stuck, the possibility of finding your answer online is high and we always recommend starting there. You would also be surprised by how many data experts use the internet to search for answers on a daily basis!

Your fellow Techionistas

If you still can't find the answer you are looking for on the internet or via one of the learning materials provided check with your study group or the other members of your cohort! Chances are someone may have the answer to your question or there are other people in the group who also are wondering the same thing! You can work together to share knowledge and find answers, which are also important skills to have: teamwork and collaboration!

Live training days

Come prepared for live training days with your hard skills questions! The best time and place to get your questions answered is by our great instructors. During live training days, there is always enough time to answer your remaining questions!

Question Form

If you cannot find an answer to your question, please don't hesitate to ask the Techionista Team! Whether it be about hard skills, career skills, schedule, or a personal issue, please reach out via the [Question Form](#). The Question Form is then routed to the rest team member for your question, and you will receive a response via a MS Teams message within two working days.