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Module Overview

Samstag, 28. Juni 2025 09:51

Start

Program overview

The program is composed of eight courses



1. Foundations: Data, Data, Everywhere (this course)

- 2. Ask Questions to Make Data-Driven Decisions
- 3. Prepare Data for Exploration
- 4. Process Data from Dirty to Clean
- 5. Analyze Data to Answer Questions
- 6. Share Data Through the Art of Visualization
- 7. Data Analysis with R Programming
- Google Data Analytics Capstone: Complete a Case
 Study
- 9. Accelerate Your Job Search with Al

Course 1 content

Each course is broken into modules. Here's a quick overview of the skills you'll gain in each of the four Course 1 modules.

Module 1: Introducing data analytics and analytical thinking

Data helps us make decisions in both everyday life and in business. In this part of the course, you'll learn how data analysts use a variety of tools and skills to inform those decisions. You'll also get to know more about this course and the overall program expectations.

Module 2: The wonderful world of data

In this part of the course, you'll learn about the data life cycle and data analysis process. They are both relevant to your work in this program and on the job. You'll also be introduced to applications that help guide data through the data analysis process.

Module 3: Set up your data analytics toolbox

Spreadsheets, query languages, and data visualization tools are all a big part of a data analyst's job. In this part of the course, you'll learn the basic concepts to use them for data analysis. You'll also understand how they work through interesting examples.

Module 4: Become a fair and impactful data professional

In this part of the course, you'll examine different types of businesses and the jobs and tasks that analysts do for them. You'll also learn how a Google Data Analytics Certificate will help you meet many of the requirements for an analyst position with these organizations.

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6 Data Analytics Cycle

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"Ask, prepare, process, analyse, share, act."

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5 Data Analytics Skills

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As you've been learning, data analysts have inherent analytical skills, whether they know it or not. In other words, the interests that have led you to pursue a career as a data analyst create a foundation that you will build on throughout your career. To review, these skills are:

Five Essential Analytical Skills

- Curiosity
- · Understanding of context
- · Technical mindset
- · Data design
- Data strategy

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5 Analytical Thinking

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5 Aspects of analytical thinking

- + visualisation
- + strategy
- + problem-orientation
- + correlation
- + using big-picture
- + detail-orientated thinking

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Analytical Strategies

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Strategy to reveal Root Cause - Five Why's

- + Asking why 5 times
- + sometimes more why's needed
- + sometimes fewer

Gap Analysis

- + Where you are know
- + And where you want to be
- + identify gaps and how to bridge them

Considering Before

+ What did we not consider before?

Concept Data-Driven Decision Making

- + using facts
- + simply thinking this way
- + gut feelings are there, but use a more technical approach
- + doing analysis

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Glossary

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Terms and definitions for Course 1, Module 1

Analytical skills: Qualities and characteristics associated with using facts to solve problems

Analytical thinking: The process of identifying and defining a problem, then solving it by using data in an organized, step-by-step manner

Context: The condition in which something exists or happens

Data: A collection of facts

Data analysis: The collection, transformation, and organization of data in order to draw conclusions, make predictions, and drive informed decision-making

Data analyst: Someone who collects, transforms, and organizes data in order to draw conclusions, make predictions, and drive informed decision-making

Data analytics: The science of data

Data design: How information is organized

Data-driven decision-making: Using facts to guide business strategy

Data ecosystem: The various elements that interact with one another in order to produce, manage, store, organize, analyse, and share data

Data science: A field of study that uses raw data to create new ways of modelling and understanding the unknown

Data strategy: The management of the people, processes, and tools used in data analysis

Data visualization: The graphical representation of data

Dataset: A collection of data that can be manipulated or analysed as one unit

Gap analysis: A method for examining and evaluating the current state of a process in order to identify opportunities for improvement in the future

Root cause: The reason why a problem occurs

Technical mindset: The ability to break things down into smaller steps or pieces and work with them in an orderly and logical way

Visualization: (Refer to data visualization)