

Follow the data life cycle

Outlining the data analysis process

▶ **Video:** Six phases of data analysis  
6 min

📖 **Reading:** The data analysis process and this program  
10 min

▶ **Video:** Molly: Example of the data process  
6 min

📖 **Reading:** Learning Log: Organize your data in a table  
20 min

🗣️ **Discussion Prompt:** Important stages in the process  
10 min

📝 **Practice Quiz:** Test your knowledge on the data analysis process  
5 questions

The data analysis toolbox

\*Weekly challenge 3\*

# Learning Log: Organize your data in a table



## Overview

By now, you have started to think about data in your daily life and how you use this data to make decisions. Earlier in this course, you completed a [learning log](#) where you recorded some data from your daily life. Next, you will consider how to organize this data. In this activity, you'll write an entry in your learning log to track your thinking and reflections about how to organize data. By the time you complete your entry, you will understand how to create and format a table to store the data that you collect. Tables are one of the most common ways data is organized for analysis. This foundational skill will help you more easily analyze data, and will serve as a go-to tool in your data analyst's toolkit.

## Structuring your data

To get started, consider the data you have collected in your learning log entries so far in this course. Now, take a moment and prepare to organize this data. One of the simplest ways to add structure to your data is to put it in a table.

To record your data in a table, you need to understand how a table is structured:

- A table consists of rows and columns
- Each row is a different observation
- Each column is a different attribute of that observation

For example, here is a collection of observations in a learning log about how many cups of coffee are consumed each day:

1. 10/19, 2.5 cups of coffee
2. 10/20, 2 cups of coffee
3. 10/21, 1 cup of coffee
4. 10/22, 1.5 cups of coffee
5. 10/23, 1.5 cups of coffee

There are five data points. Each piece of data consists of a date and the number of cups of coffee consumed that day. You can structure this as a table with six rows and two columns. This includes five rows of data and one header row with titles:

Date	Cups of Coffee / Day
10/19	2.5
10/20	2
10/21	1
10/22	1.5
10/23	1.5

You can also create a table with more detailed data. For instance, if your data also contained information about whether there was cream and sugar in the coffee, it might appear like this:

1. 10/19, 2.5 cups, cream, sugar
2. 10/20, 2 cups, no cream, no sugar
3. 10/21, 1 cup, cream, sugar
4. 10/22, 1.5 cups, cream, no sugar
5. 10/23 1.5 cups, cream, sugar

You can represent this by adding two more columns to your table, one titled "Cream" and one titled "Sugar."

Date	Cups Coffee/Day	Cream	Sugar
10/19	2.5	yes	yes
10/20	2	no	no
10/21	1	yes	yes
10/22	1.5	yes	no
10/23	1.5	yes	yes

## Now it's your turn!

You have been collecting data from the beginning of the course. Take a moment to consider the data you have gathered in your learning log. Now, determine how you could organize your data in a table.

Before you begin, you should decide what software you'd like to use to create your table. We suggest using Google Docs or Microsoft Word for this example; you will have a chance to use tables in spreadsheets later on. You will find detailed instructions on how to create tables when you access your learning log, below.

### Access your learning log

To use the template for this course item, click the link below and select "Use Template."

Link to learning log template: [Organize your data in a table](#)

OR

If you don't have a Google account, you can download the template directly from the attachment below.



**Learning Log Template\_ Organize your data in a table**  
DOCX File

## Reflection

In a new learning log entry, follow the instructions in the template, and add a table to organize your data. Then, write 3-5 sentences (60-100 words) on opportunities in your personal life or current job to organize data into tables.

When you've finished your entry in the learning log template, make sure to save the document so your response is somewhere accessible. This will help you continue applying data analysis to your everyday life. You will also be able to track your progress and growth as a data analyst.

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