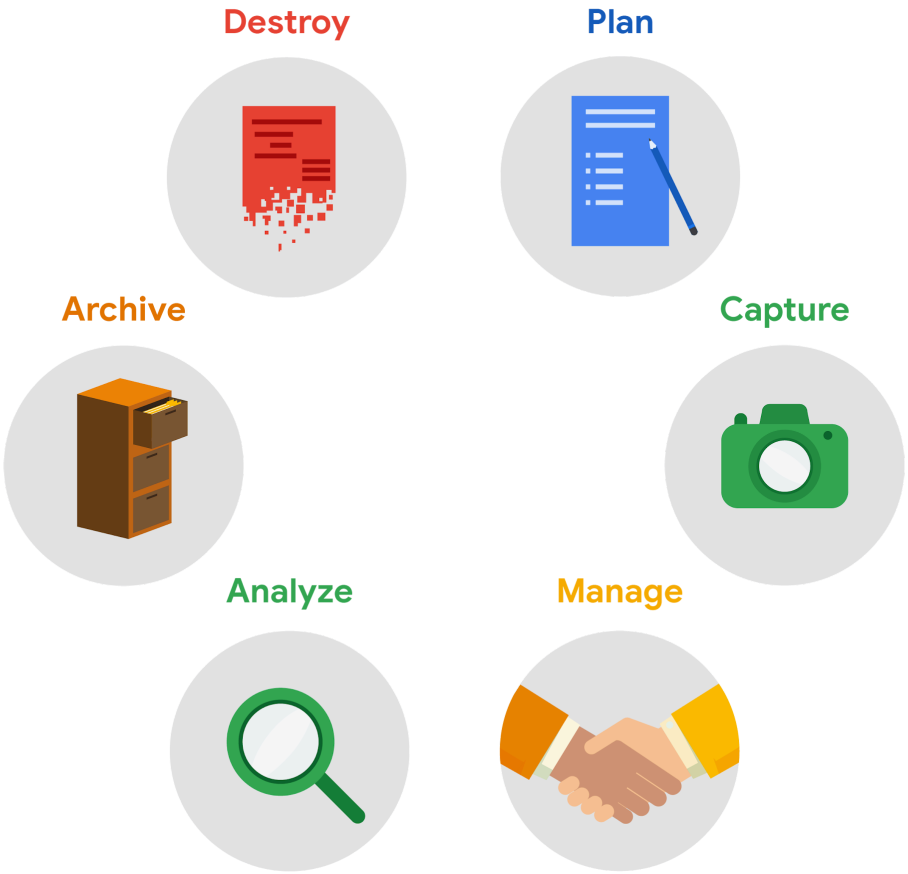
Spreadsheets and the data life cycle

To better understand the benefits of using spreadsheets in data analytics, let's explore how they relate to each phase of the data life cycle: **plan, capture, manage, analyze, archive,** and **destroy**.



- **Plan** for the users who will work within a spreadsheet by developing organizational standards. This can mean formatting your cells, the headings you choose to highlight, the color scheme, and the way you order your data points. When you take the time to set these standards, you will improve communication, ensure consistency, and help people be more efficient with their time.
- **Capture** data by the source by connecting spreadsheets to other data sources, such as an online survey application or a database. This data will automatically be updated in the spreadsheet. That way, the information is always as current and accurate as possible.
- **Manage** different kinds of data with a spreadsheet. This can involve storing, organizing, filtering, and updating information. Spreadsheets also let you decide who can access the data, how the information is shared, and how to keep your data safe and secure.
- **Analyze** data in a spreadsheet to help make better decisions. Some of the most common spreadsheet analysis tools include formulas to aggregate data or create reports, and pivot tables for clear, easy-to-understand visuals.

- **Archive** any spreadsheet that you don't use often, but might need to reference later with built-in tools. This is especially useful if you want to store historical data before it gets updated.
- **Destroy** your spreadsheet when you are certain that you will never need it again, if you have better backup copies, or for legal or security reasons. Keep in mind, lots of businesses are required to follow certain rules or have measures in place to make sure data is destroyed properly.

Resources for more information

Spreadsheet shortcuts can help you become more efficient with spreadsheets. If you'd like to learn more, you can explore the collection of Google Sheets shortcuts, or visit the Microsoft Excel shortcuts page if you are using Excel. Both of these resources contain a list of spreadsheet shortcuts you can save and reference as you work more with spreadsheets on your own.

Step-by-Step: Basic spreadsheet tasks

This reading outlines the steps the instructor performs in the next video, Basic spreadsheet tasks. In the video, the instructor explains how to organize a spreadsheet and demonstrates how organizing data helps you understand it more fully.

Keep this step-by-step guide open as you watch the video. It can serve as a helpful reference if you need additional context or clarification while following the video steps. This is not a graded activity, but you can complete these steps to practice the skills demonstrated in the video.

What you'll need

If you'd like to follow along with the first two examples in this video, choose a spreadsheet tool and open a blank sheet.

If you would like to access the other spreadsheet the instructor uses in this video, click the link to the dataset to create a copy. If you don't have a Google account, you may download the data directly from the attachments below.

Link to population data: Population of Latin and Caribbean Countries

OR

Population-Latin-and-Caribbean-Countries-2010-2019

XLSX File

Example 1: Open a new spreadsheet

1. Open a new blank spreadsheet.
2. In the title bar, name it: Population, Latin and Caribbean Countries, 2010-2019.

Example 2: Create a new folder

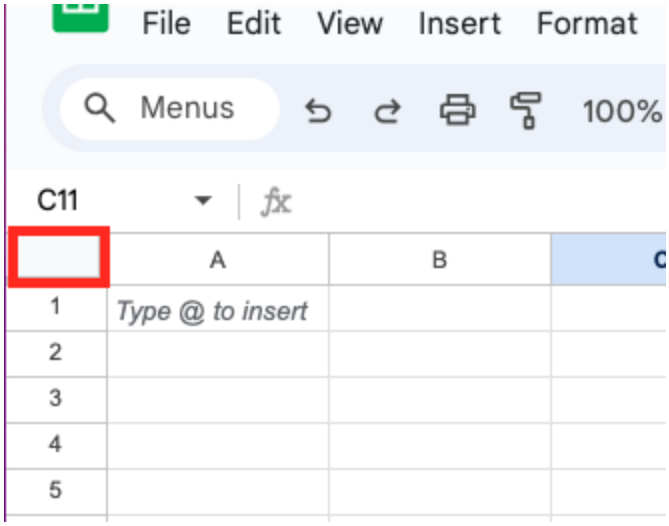
Organizing files in folders helps you locate the correct file more easily.

1. Select **File**, then select **Move**.
2. Select the **New Folder** icon.
3. Name the new folder **Population Data**.
4. Select the **checkmark** icon to move the spreadsheet to its new folder.

Example 3: Change cell size

Change the format of your spreadsheet to make it easier to understand.

1. Open the **Population of Latin and Caribbean Countries** spreadsheet and select Use Template.
2. Select the cell where the column and row headers intersect.



3. Widen all columns by clicking and dragging the boundary between **Columns D** and **E**.

Example 4: Make attributes stand out

Adding formatting to cells that contain attribute labels help the attributes stand out.

1. Select cell **1** to select the entire first row.
2. Select the paint can icon called **Fill color** and choose a color. This will fill the cells in the row with your selected color, making the attributes stand out.
3. Select the **B** icon from the menu bar to bold the labels.

Example 5: Add a column

If you need to add a new attribute to your spreadsheet, add a new column.

1. Select cell **I1**.
2. From the **Insert** menu, select **Column right** from the menu bar. This inserts a column to the right of **Column I**.

Example 6: Delete a column

Organize your data by deleting an attribute.

1. Right click cell **J1**.
2. Select **Delete column**. This deletes the column and causes all the other columns to shift to the left.

Example 7: Add a border

Adding borders helps distinguish cells from one another.

1. Select the cell in the top-left corner of the image, above **1** and to the left of **A**.
2. Select the **Borders** icon from the menu.
3. Select **All borders**.

Learn more about spreadsheet basics

Below, you will find a list that covers two types of spreadsheet programs: **Microsoft Excel** and **Google Sheets**. The list includes quick-start guides, tutorials, and more. The examples in this course use Google Sheets, but you can follow along using Excel or any other spreadsheet application. The user interface might be a little different, but it should look and work similarly.

Microsoft Excel

- Office Quick Starts: Scroll down to the **Downloadable guides** section to download the **Excel Quick Start Guide**: This PDF guide begins with a labeled map of Excel that can guide you through the basic tasks you can accomplish in Excel. For tips on starting and opening Excel, this Microsoft Support page will show you how to begin a new workbook.
- Excel video training: This is a collection of step-by-step videos to use all sorts of Excel features, including adding and working within rows, columns, and cells; formatting; using formulas and functions; and adding charts and pivot tables.
- Sort data in a range or table: This page guides you through all of the steps you will need to sort data by number, text, and color. You'll also have the option to sort by custom list so that you can customize exactly what you want to sort.
- Filter data in a range or table: This article has step-by-step instructions on how to filter an Excel spreadsheet to show only the data you want to see. You can also use built-in comparison operators, such as "greater than" and "top 10" to reveal only the most relevant data.
- Format a worksheet: The guide will help you select and format your Excel spreadsheet, then change the borders, shading, colors, and text. This can help improve your spreadsheet's readability.

Pro tip: If you're searching for information about using customizable options, check out Microsoft's Guidelines for organizing and formatting data on a worksheet. This article provides clear methods for creating easy-to-read spreadsheets.

Google Sheets

- Google Sheets cheat sheet: The cheat sheet puts all the basics of Sheets on a single page for easy reference. Here, you can learn about customizing your spreadsheet and the data inside; working with rows, columns, and cells; sharing your spreadsheet with others; creating different versions and copies of a spreadsheet; and more.

- Get started with Sheets: Create and import files: This guide is a step-by-step guide for working with Sheets. You start by learning how to open a spreadsheet, then move on to adding data.
- Sort and filter your data: This resource can help you organize data in Sheets. Use this guide to sort part or all of a spreadsheet. You can sort by text, number, and color. Then, learn how to create filters to show only certain data while hiding the rest. Finally, the article includes information on creating, saving, and removing a filter view.
- Edit and format a spreadsheet: This will help you make easy-to-read spreadsheets. You will learn how to assign a color, customize borders around cells, and change the appearance of text. If you'd like to give your spreadsheet a theme, you can scroll to the bottom of the page and find how to apply it to parts of your spreadsheet.

Tip: Microsoft Excel and Google Sheets are very similar in terms of calculations, formulas, functions, and many other features. But there are some differences, which can make it tricky to switch from one to the other. If you are moving between Excel and Google Sheets, find a quick list of the differences between the two kinds of spreadsheet applications in Overview: Differences between Sheets and Excel.