## COURSE 5 - ANALYZE DATA TO ANSWER QUESTIONS

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## MODULE 1

Organizing data makes the data easier to use in your analysis. In this part of the course, you’ll learn the importance of organizing your data through sorting and filtering. You’ll explore these processes in both spreadsheets and SQL as you continue to prepare your data.

### **LEARNING OBJECTIVES**

* Describe what is involved in the data analysis process with reference to goals and key tasks
* Discuss the importance of organizing data before analysis with references to sorts and filters
* Describe sorting as it relates to data in a spreadsheet or database with reference to functionality and benefits
* Recall the steps involved in sorting and filtering data through the use of SQL queries

## LET’S GET ORGANIZED

### [INTRODUCTION TO GETTING ORGANIZED](https://www.coursera.org/learn/analyze-data/lecture/6chA9/introduction-to-getting-organized)

Hey there, future data analysts!

You've made a lot of progress so far. It's not an easy journey, but you're doing great. Before you started this program, something inside of you convinced you to get your Google Data Analytics Certificate.

You had an idea, did some research, and made the time to get started. Then you made the decision to commit to your goal. Now look where you are! That is something to be proud of.

Early on, we jumped right into the world of data analytics and saw how data played a part in your everyday life. You learned how to navigate spreadsheets and why structured thinking was key to solving problems. You also explored the best ways to collect and store your data. From there, you gained an understanding of clean data and data integrity. You've identified how to ask the right questions and learned to clean data.

Now we'll take your skills to the next level. Next up, you'll learn how to come up with clear and objective answers to any data question you encounter. Earlier, we learned about the data analysis process.

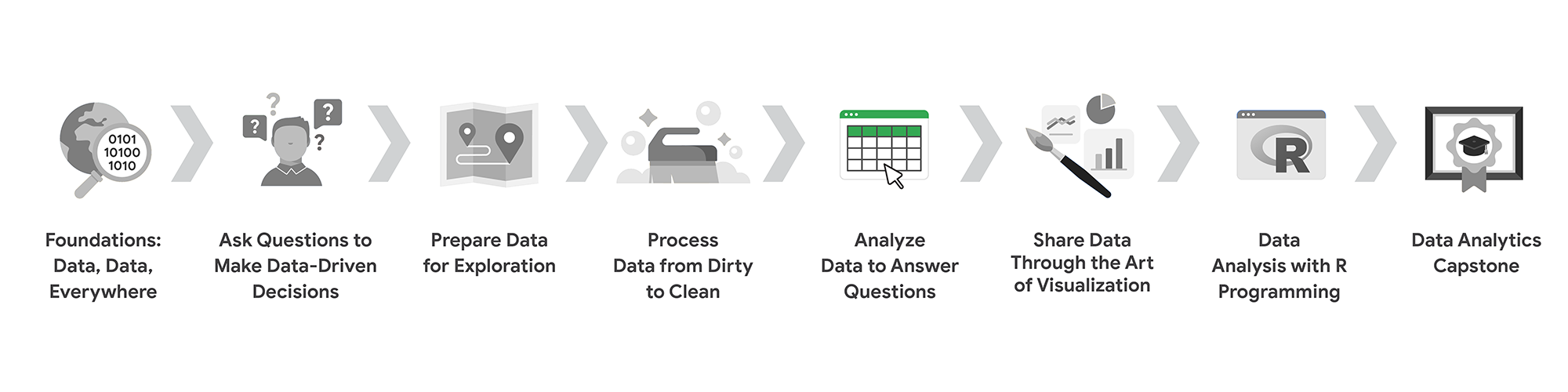
As a quick reminder, **the phases of that process are Ask, Prepare, Process, Analyze, Share, and Act**. We'll explore the Analyze phase more here, focusing on how to organize and format the data you have so that you can do all sorts of calculations.

Knowing how to analyze the data you've collected and cleaned is essential to your work as an analyst.

Before we get started, I'd like to introduce myself. My name is Ayanna, and I'm excited to be your instructor for this course. I'm a global insights manager at Google, and I've also taught at the Google Analytics Academy, which is a training resource for Google Analysts. In my job, I help advertisers determine the value of investing in Google products. When you search for something online, you'll often see an ad on the page. That's an investment an advertiser has made. I use data analysis to show advertisers the value they could gain from investing in those ads. That's what I love about being a data analyst: figuring out how to create value anytime I enter a situation. **The best way to know if you're creating value is if you have evidence.** **For me, that evidence is data**. Now that you know a little bit about my love for data, let's talk about what you'll learn here.

You'll start by covering best practices for organizing your data and the different ways you can sort through that data using spreadsheets and SQL. We'll also spend time learning three important ways to work with data that will boost your analytical skills. Then we'll talk about saving time. You'll discover tips and tricks that can help you analyze data more efficiently. Last but not least, we'll work together to identify techniques to help you be as fair and unbiased as possible. Coming up, we'll break down the basics of data analysis and bring **you one step closer to a future in data.**

### [COURSE 5 OVERVIEW: SET YOUR EXPECTATIONS](https://www.coursera.org/learn/analyze-data/supplement/Bbxbl/course-5-overview-set-your-expectations)



1. [Foundations: Data, Data, Everywhere](https://www.coursera.org/learn/foundations-data/home/welcome)
2. [Ask Questions to Make Data-Driven Decisions](https://www.coursera.org/learn/ask-questions-make-decisions/home/welcome)
3. [Prepare Data for Exploration](https://www.coursera.org/learn/data-preparation/home/welcome)
4. [Process Data from Dirty to Clean](https://www.coursera.org/learn/process-data/home/welcome)
5. **Analyze Data to Answer Questions** *(this course)*
6. [Share Data Through the Art of Visualization](https://www.coursera.org/learn/visualize-data/home/welcome)
7. [Data Analysis with R Programming](https://coursera.org/learn/data-analysis-r/home/welcome)
8. [Google Data Analytics Capstone: Complete a Case Study](https://coursera.org/learn/google-data-analytics-capstone/home/welcome)

Welcome to the fifth course in the series for the Google Data Analytics Certificate! The goal of data analysis is to make sense out of the data you collect and receive. Up until now, your focus has been on the preparations a data analyst goes through before entering the analysis phase. Specifically, in the last course, you learned about checking data for completeness and cleaning it for accuracy and reliability.

If you feel like a hiker who has climbed a great distance to get to higher ground, we are excited to tell you that you have arrived! You have reached a stage where you are ready to work directly with data. You will organize and format data. This will help you think about data in different ways. Similar to how the view from a hiker’s lookout is amazing, your view of data from this point on will be spectacular.

You will have hands-on practice organizing, sorting, filtering, formatting, converting, and combining data in spreadsheets. These are tasks you would complete in a real data analysis project. You will also learn how to sort and filter your data using SQL queries. You will be using functions and writing queries frequently as you continue your learning.

Course content

**Course 5 – Analyze Data to Answer Questions**

1. **Organize data to begin analysis.** Organizing data makes the data easier to use in an analysis. In this part of the course, you will learn the importance of organizing your data with sorting and filtering. You will explore organizing data in both spreadsheets and with SQL queries and temporary tables.
2. **Format and adjust data.** As you move closer to analyzing your data, you will want to have the data formatted and ready to go. In this part of the course, you will learn all about converting and formatting data, including how to use SQL queries to combine data. You will also discover the value of feedback and support from your colleagues and how it can lead to new insights that you can apply to your work.
3. **Aggregate data for analysis.** During an analysis, you might need to combine data to gain insights and complete business objectives. In this part of the course, you will explore the functions, procedures, and syntax to combine, or aggregate data. You will learn how to combine data within multiple cells in spreadsheets, and within multiple database tables using SQL queries.
4. **Perform data calculations.** Calculations are one of the more common tasks that data analysts perform during an analysis. In this part of the course, you will explore formulas, functions, and pivot tables in spreadsheets and SQL queries. All of these are used in data calculations. You will also learn about the benefits of using SQL to manage temporary database tables.

**What to expect**

You can expect to finish this course in about five weeks when you have completed all of the prescribed activities, which include:

* **Videos** of instructors teaching new concepts and demonstrating the use of tools
* **In-video questions** that pop up during or at the end of a video to check your learning
* **Readings** to introduce new ideas and build on the concepts from the videos
* [**Discussion forums**](https://www.coursera.org/learn/analyze-data/discussions) to discuss, explore, and reinforce new ideas for better learning
* **Discussion prompts** to promote thinking and engagement in the discussion forums
* **Hands-on activities** to introduce real-world, on-the-job situations, and the tools and tasks to complete assignments
* **Practice quizzes** to prepare you for graded quizzes
* **Hands-on activities** toreinforce learned skills for the graded quizzes
* **Graded quizzes** to measure your progress and give you valuable feedback

Hands-on activities promote additional opportunities to build your skills. Try to get as much out of them as possible. Assessments are based on the approach taken by the course to offer a wide variety of learning materials and activities that reinforce important skills. Graded and ungraded quizzes will help the content sink in. Ungraded practice quizzes are a chance for you to prepare for the graded quizzes. Both types of quizzes can be taken multiple times.

As a quick reminder, this course is designed for all types of learners, with no degree or prior experience required. Everyone learns differently, so the Google Data Analytics Certificate has been designed with that in mind. Personalized deadlines are just a guide, so feel free to work at your own pace. There is no penalty for late assignments. You'll see a **Reset deadlines** option on the Grades and Overview pages. Click it to switch to a new schedule for the course with updated deadlines.  [Contact Coursera](https://www.coursera.support/s/article/360036160591-How-to-contact-Coursera?) if you need additional assistance.

If you would like to review previous content or get a sneak peek of upcoming content, you can use the navigation links at the top of this page to go to another course in the program. When you pass all required assignments, you will be on track to earn your certificate.

Tips

* Try to complete all items in order. All new information builds on previous lessons.
* Treat every task as if it is real-world experience. Have a mindset that you are working at a company or in an organization as a data analyst. This will help you apply what you learn to the real world.
* Repeat demonstrated tasks on your own for extra practice and speed.
* Even though they aren’t graded, it is important to complete all practice items. They will help you build a strong foundation as a data analyst and prepare you for the graded assessments.
* Take advantage of all additional resources provided, including discussion forums and links to external articles for more information.
* When you encounter useful links in the course, remember to bookmark them so you can refer to the information later for study or review.
* Additional resources are free, but some sites place limits on how many articles you can access for free each month. Sometimes you can register on the site for full access, but you can always bookmark a resource and come back to view it later.
* Use a notebook or electronic journal to keep track of new formulas, functions, and syntax that you learn. That way, you will be able to refer back to any notes as needed.

Data analysts use spreadsheets and SQL queries a lot. If you perform all of the assigned activities in the application environments that are recommended, you will get a good idea of what you could be doing on the job as a data analyst.

**Updates to the course**

As you complete this course, you may notice updates to the content, like new practice materials and additional examples. These updates ensure the program provides up-to-date skills and guidance that will help you in your data analytics career. If you previously completed a graded activity, you *may* need to repeat the assessment in order to complete this course. For more information, check out [the course discussion forum.](https://www.coursera.org/learn/analyze-data/discussions)

## ORGANIZE DATA FOR ANALYSIS

### [THE ANALYSIS PROCESS](https://www.coursera.org/learn/analyze-data/lecture/olTet/the-analysis-process)

Welcome back. It's great to see you again. So let's talk about analysis. We've learned how to ask the right questions, prepare data for exploration, and then process that data to make sure it's squeaky clean.

Now it's time for the heart of the process: the actual analysis! Finally, right? **But what is analysis?** Basically, analysis is the process used to make sense of the data collected. It means taking the right steps to proceed and think about your data in different ways.

**The goal of analysis is to identify trends and relationships within the data so that you can accurately answer the question you're asking.**

To do this, you should **stick to the *4 phases of analysis***: **organize data, format and adjust data, get input from others, and transform data by observing relationships between data points and making calculations**.

Let's apply the ***4 phases of analysis*** to a real-world scenario.

**OFA - Organize, format and adjust data   
GIFO - Get Input from Others  
TD - Transform data**

Imagine you want to buy a gift for your friend Zara's wedding. The problem is you're not sure what to get her. Fortunately, you have a ton of data from her wedding website. But instead of reading all the data on her website and scrolling through a photo album of her and her partner, you go straight to the online registry, a wish list of gifts they'd enjoy.

The registry is like a dataset that you can analyze to make a decision. Now that you're checking out **organized data** in the registry, you want to make sure that the list of data, or gifts in this case, is formatted in a way that's easy to reference. **Formatting data streamlines things and saves you time**. Scrolling through hundreds of gifts can be time-consuming. Instead, you can **adjust the data** in a way that makes it easy to digest by filtering and sorting your data. You have a budget you want to stick to, so you sort the gift prices from low to high. You then filter prices to include gifts that are within your budget of $60.

You're working with a newly formatted list of data. At this point, it's good to remember that input from other people can also be really helpful when analyzing information and making decisions. You can check the list of gifts to figure out if anyone else has already bought any of the items. You realize a few of the items in the list have been purchased, and this informs your decision. When analyzing data, **gaining input from others** is important because it gives you a viewpoint you might not understand or have access to. On top of gaining input from other people, **it's also important to seek out others' perspectives early**. That way, if they predict any obstacles or challenges, you'll know beforehand. The people you'll look to for input don't have to be experts to be helpful. Sometimes all you need is for someone who's familiar with a topic or data you're considering. In our example, that would be Zara's wedding guests who are purchasing gifts from the same online registry. They probably aren't wedding gift experts, but their collaborative effort to mark off the item they purchase can help you figure out what not to buy, which will prevent Zara from getting the same gift twice. **In the end, getting input is valuable to your analysis**. This brings us to the last step of the analysis: **transforming data**.

**Transforming data** means identifying relationships and patterns between the data, and making calculations based on the data you have. Going back to our example, you were able to find a gift that you knew Zara would like, and one that fits your budget. You were also able to choose a gift that wasn't already purchased by someone else. By finding the relationship between these data points, you chose, purchased, and sent a gift that would answer the problem you wanted to solve. The beauty of the analysis process is that you probably already analyze situations in your everyday life. Whether you're analyzing data in your personal life or in your career, these four tasks can help you make better decisions. The more you do it, the more comfortable you'll feel with the process. I hope this gives you a better understanding of the basics of analysis. As we move forward, we'll check out how to locate data for analysis, both in a spreadsheet and using SQL. When you're ready, you can go ahead. See you soon!

### 

### [AYANNA: STICKING WITH IT](https://www.coursera.org/learn/analyze-data/lecture/EzE9X/ayanna-sticking-with-it)

I think one of the coolest things about working with data at Google is that we have one of the world's most valuable datasets. People refer to **Google data as really a lens into human curiosity**.

We often look at **Google as really a proxy for what's happening in the world**. And so for many of our advertisers, they really, really value the data and the insights that we're able to give them from Google because they believe it's a proxy or a reflection of what's happening in their business or within their industry.

And so I think the value of the data that we're able to work with at Google really keeps me interested and excited about the work that I do. So I came to Google about three years ago after spending a few years in consulting. And so I was really interested in switching into a role that was really focused on sales and marketing. But at the same time, I still wanted to be able to leverage the analytical skill set that I had gained prior. This role was a great complement to the skill sets that I already had and the interest that I had in moving into the sales and marketing function. **I think one important thing for all students to realize is that no one learns this material overnight**. Many of your colleagues you may look at as experts, but most likely they've been able to gain that level of expertise through their years within the field.

**I think one of the biggest attributes that students should keep in mind is that the most important thing that they need to have throughout this learning journey is grit**.

**Grit to understand that it may be a struggle, it may be a challenge, but if you put in the work, you put in the time, these concepts will eventually click, and you'll be well on your way to becoming a data analyst**.

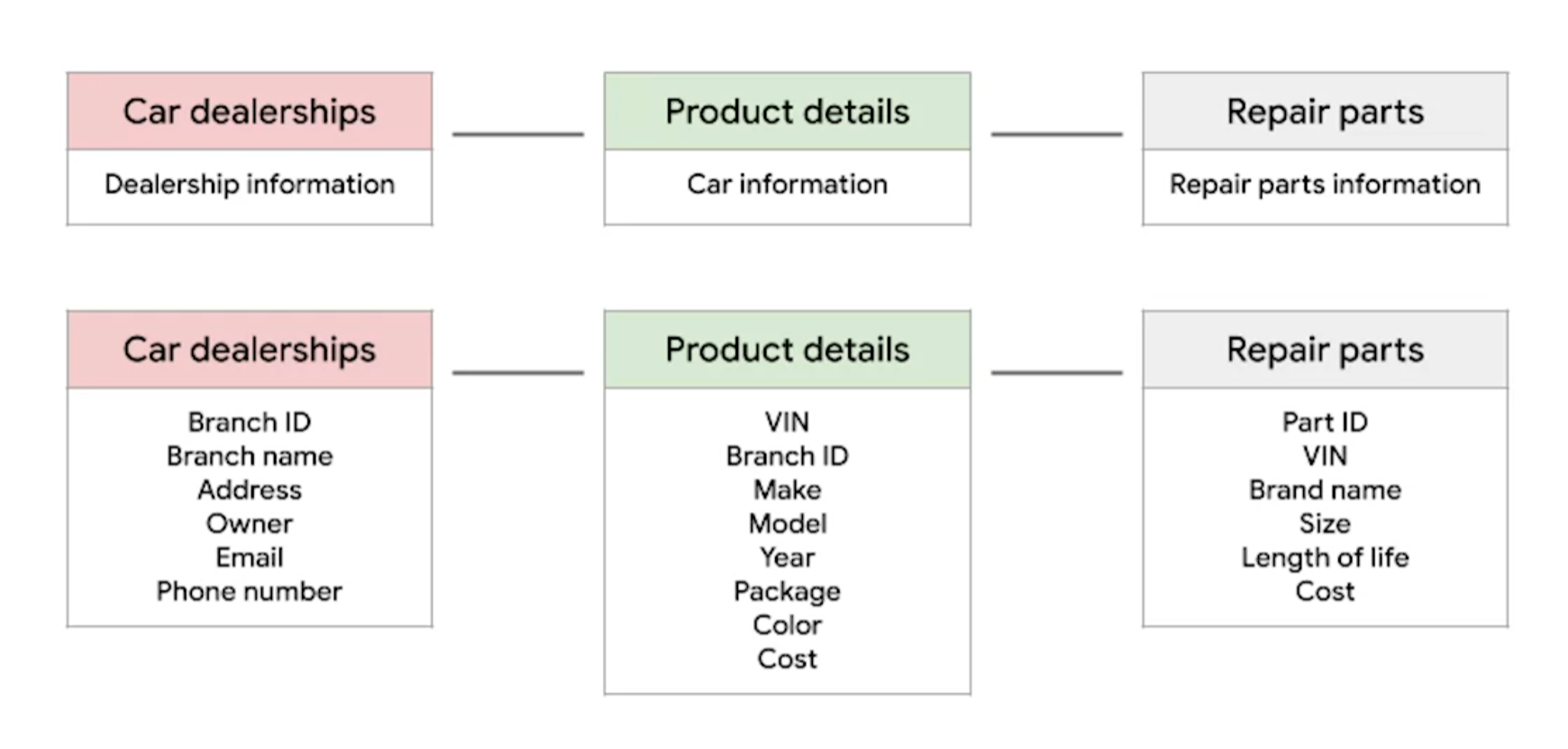
Hi, my name is Ayanna and I'm a global insights manager here at Google.

### [ALWAYS A NEED TO ORGANIZE](https://www.coursera.org/learn/analyze-data/lecture/4o37v/always-a-need-to-organize)

Hi again. Let's jump back in. Right now we're in the **Analyze phase of the data analysis process.** And even though each phase is unique, data analysts make decisions about organization throughout all of them.

That's what we're talking about here: **organization**. It's super important that you keep your data organized throughout your analysis.

How your data is classified and structured will impact your findings, whether you're working in a spreadsheet or a database. And once you know how your data is organized, you'll be able to capture or collect the information you need. Most of the data you'll use in your analysis will be organized in tables. Tables help you organize similar kinds of data into categories and subject areas that you can focus on as you analyze. For example, this basic database has tables for car dealerships, product details, and repair parts.

Each table then has several fields of data, like branch owner and the cost of repair parts. 

You can use these tables and fields to help you decide how to move forward with your analysis. The structure of this database can help you decide which data you need to pull to meet your objectives. For example, the total number of a particular brand of car sold, or a repair part for a specific make and model of a car at a certain branch.

Tables allow you to make decisions about data types. They help you to figure out what variables you need and the data type those variables should have. So if you have a database where you need to convert a data type during your analysis, you can do that by using the CAST command in SQL or any other method that you learn on the job or from your own research.

Like this example where we converted a purchase price column to be a FLOAT instead of a STRING so that it was in a numerical form we could use for calculations. **If you're performing your analysis in a spreadsheet, you want to make sure that the columns and rows are effectively organized**. You can even hide columns that you won't need for analysis or that show duplicate information. Once you have the data organized and formatted, you'll be ready to sort and filter it to find the data you need.

We'll cover sorting and filtering soon. **But for now, just know that both filters and sorts are affected by the type of data we're working with**. The bottom line is that **it's important to have your data in the right format**.

So always be prepared to adjust, no matter how far into your analysis you are. That's all for now. Coming up, we'll show you what filters are all about. Bye!

### [SORT AND FILTER DATA TO KEEP IT ORGANIZED](https://www.coursera.org/learn/analyze-data/supplement/RSNx9/sort-and-filter-data-to-keep-it-organized)

The first two phases of data analysis, **Organize data** and **Format and adjust data**, are important for data analysts because they can use these phases to manipulate their data in ways that make important patterns and trends more obvious. Most of the datasets you’ll use as a data analyst will be organized as tables. Tables are helpful because they let you manipulate and categorize your data. Having distinct categories and classifications lets you focus on, and differentiate between, the groups in your data quickly and easily.

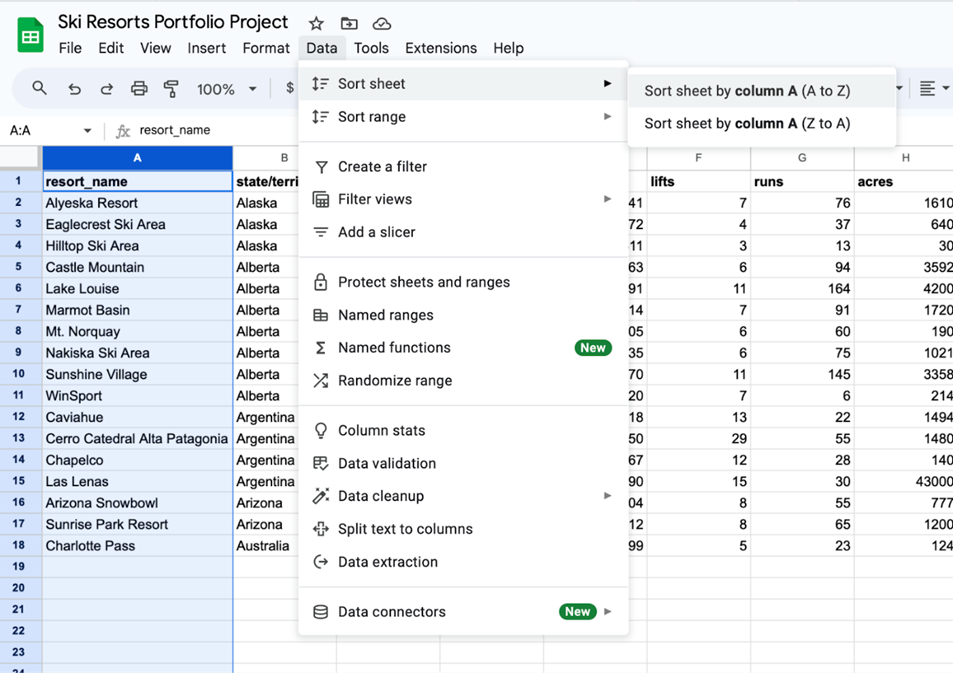
Sorting and filtering are two methods you can use to organize, format, and adjust data. For example, a filter can help you find errors or outliers so you can fix or flag them before your analysis. Outliers are data points that are very different from similarly collected data and might not be reliable values. The benefit of filtering the data is that after you fix errors or identify outliers, you can remove the filter and return the data to its original organization.

In this reading, you’ll review sorting and filtering and consider how they can be used together. You’ll also be introduced to how a particular form of sorting is done in a pivot table.

Sort data

Sorting is the process of arranging data into a meaningful order to make it easier to understand, analyze, and visualize. It ranks your data based on a specific metric you choose. You can sort data in spreadsheets, SQL databases (when your dataset is too large for spreadsheets), and tables in documents.

To rank items or create chronological lists, you can sort by ascending or descending order. Sorting arranges the data in a meaningful way and gives you immediate insights. Sorting also helps you to group similar data together by a classification. For example, if a ski resort design company wants to evaluate the resorts designed by a competitor, a data analyst can sort competitive resorts by locations, runs, acreage, and other factors. This way, the firm’s designers can visit the types of resorts they also design and gather information that could be used in its own future designs.

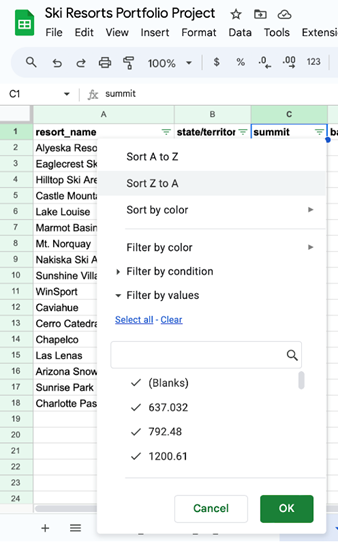
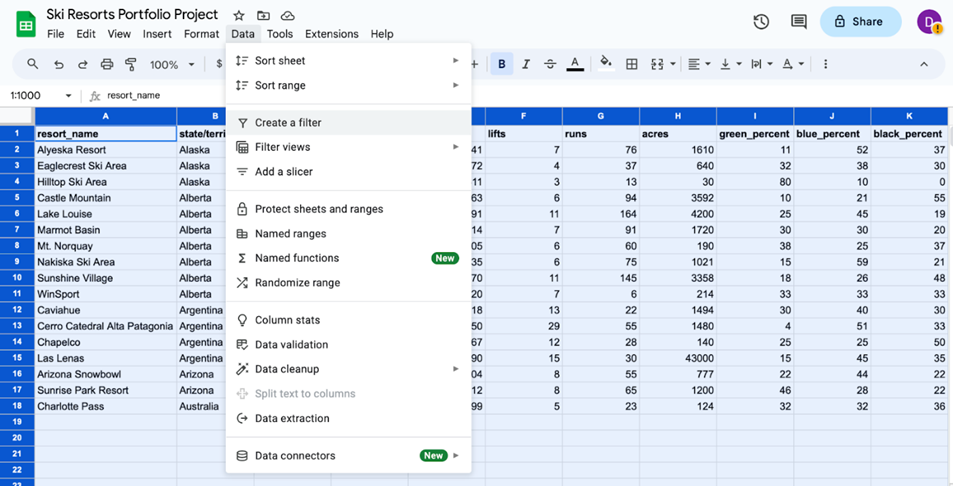


An example of sorting a spreadsheet of ski resorts, including information about resort name, state/territory/country, lifts, runs, and acres. The image taker has clicked into the Data menu option, selected Sort sheet, and is hovering over Sort sheet by column A (A to Z).

**Filter data**

Sometimes, an analysis may require only a subset of the data in your dataset. You can use a filter to show only the data that meets a specified criteria while hiding the rest. Filtering is useful when you have lots of data. You can save time by zeroing in on the data that’s important for your current analysis or the data that contains errors. Most spreadsheets and SQL databases allow you to filter your data in a variety of ways. Filtering gives you the ability to find what you are looking for without too much effort.

For example, if the ski resort design company wants to inspect specific criteria for the competitive ski resorts they intend to visit and evaluate, a data analyst can filter the competitive resort database to extract information about the number of runs compared to acreage to identify design trends or other insights.



An example of filtering data in a spreadsheet of ski resort information by specific evaluation criteria such as location, acreage, or number of runs

Sort a pivot table

A pivot table is a data summarization tool used to sort, reorganize, group, count, total, or average data. Items in the row and column areas of a pivot table are sorted in ascending order by any custom list first. If the items aren’t in a custom list, they will be sorted in ascending order by default. But, if you sort in descending order, you are setting up a rule that controls how the field is sorted even after new data points are added. For example, in the ski resort dataset, the pivot table allows locations to be sorted alphabetically by state, territory, or country.

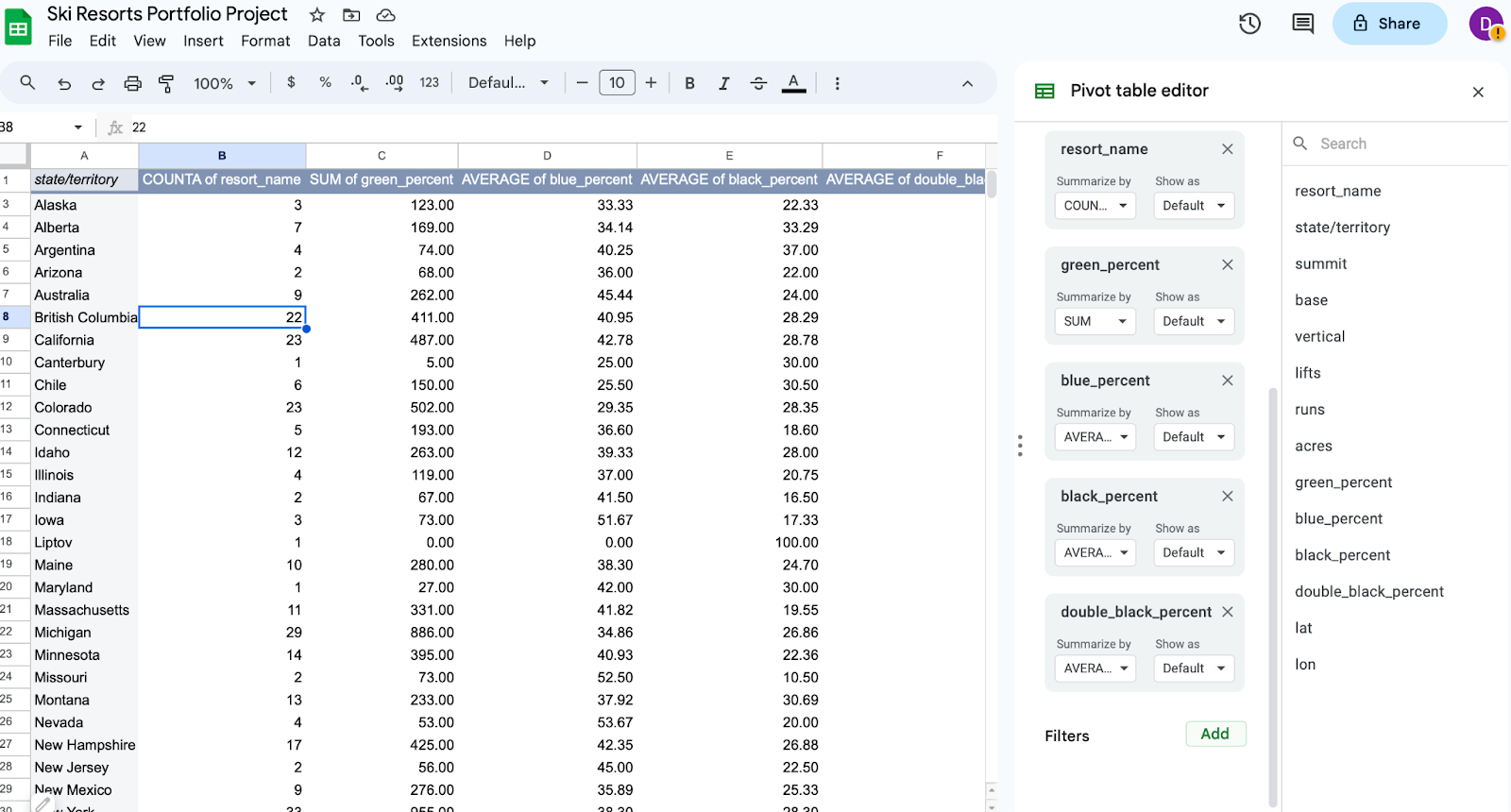


Image of a pivot table of the ski resort data, with the pivot table editor open and ready for parameters to be entered. The data is grouped by state, territory, or country.

**Key takeaways**

Data analysts filter and sort data to organize it for better understanding, analysis, and visualization. Sorting arranges data in a meaningful order, while filtering displays only data that meets specific criteria. Combining filtering and sorting allows for organizing only relevant data for analysis. Both spreadsheets and SQL databases allow for data filtering and sorting data.

### [UPLOAD THE MOVIE DATASET TO BIGQUERY](https://www.coursera.org/learn/analyze-data/supplement/sBFZn/upload-the-movie-dataset-to-bigquery)

### [STEP-BY-STEP: FILTER DATA WITH SQL](https://www.coursera.org/learn/analyze-data/supplement/CizF2/step-by-step-filter-data-with-sql)

This reading outlines the steps the instructor performs in the following video, [Filter data with SQL](https://www.coursera.org/learn/analyze-data/lecture/Y5Nmb/more-on-sorting-and-filtering). In the video, the instructor demonstrates filtering data with SQL using **WHERE** clauses.

Keep this step-by-step guide open as you watch the video. It can serve as a helpful reference tool 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 instructor, you will need to log in to your BigQuery account and upload the Movies dataset. To do this, follow the instructions in the reading [**Upload the movie dataset to BigQuery**](https://www.coursera.org/learn/analyze-data/supplement/sBFZn/optional-upload-the-movie-dataset-to-bigquery).

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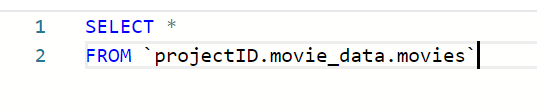
## **Example 1: Filter data in SQL**

Complete the following steps to use the **WHERE** clause to filter the database and narrow down the list to movies in the comedy genre.

1. In the BigQuery **Explorer pane**, select the **movie** dataset then the **movies** table.

2. Select the **Preview** tab from the **Details pane**.

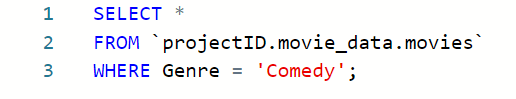
3. Select **Query** then **In new tab** and enter the following code into the query editor:



**Note:** If you’re completing this code in BigQuery, replace **projectID** in the code block to your own projectID.

4. Use the **WHERE** clause to filter the data. Enter **WHERE Genre = 'Comedy';** to filter for and select rows with 'Comedy' in the Genre column.

5. Your code should now match this code block:



6. Select **RUN** to run the query. The results display a shorter list of movies, all in the comedy genre.

Mark as completed

### [FILTER DATA WITH SQL](https://www.coursera.org/learn/analyze-data/lecture/Y5Nmb/filter-data-with-sql)

Hey, great to see you again. Earlier we talked about why you should organize your data, no matter what part of the lifecycle it's in. **Just like any collection, it's easier to manage and care for a group of things when there's structure around them.**

Now we should keep in mind that organization isn't just about making things look orderly. It's also about **making it easier to search and locate the data you need in a quick and easy way**.

As a data analyst, you'll find yourself rearranging and sifting through databases pretty often. **Two of the most common ways of doing this are with sorting and filtering**. We've briefly discussed sorting and filtering before, and it's important you know exactly what each one does.

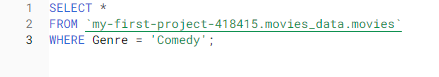
**Sorting** is when you arrange data into a meaningful order to make it easier to understand, analyze, and visualize. Sorting ranks your data based on a specific metric that you can choose. You can sort data in spreadsheets and databases that use SQL. A common way to sort items when you're shopping on a website is from lowest to highest price, but you can also sort by alphabetical order, like books in a library. Or you can sort from newest to oldest, like the order of text messages in a phone. Or nearest to furthest away, like when you're searching for restaurants online. Another way to organize information is with a filter.

**Filtering** is showing only the data that meets a specific criteria while hiding the rest. Typically you can use filters when you want to narrow down the amount of data you want to sift through. Say you're searching for green sneakers online. To save time, you filter for green shoes only. Using a filter slims down larger data sets to smaller subsets that are relevant to what you need. Sorting and filtering are two actions you probably perform a lot online. Whether you're sorting movie showtimes from earliest to latest, or filtering your search results to just images, you're probably already familiar with how helpful they can be for making sense of data.

Now let's take that knowledge and apply it. When it comes to sifting through large, disorganized piles of data, filters are your friend. You might remember from a previous video that **you can use filters and spreadsheet programs, like Excel and Sheets, to only display data from rows that match the range or condition you've set. You can also filter data in SQL using the WHERE clause. The WHERE clause works similarly to filtering in a spreadsheet because it returns rows based on a condition you name**.

Let's learn how you can use a WHERE clause in a database. We'll use BigQuery to access the database and run our query. If you're joining us, open up your tool of choice for using SQL and reference the earlier resource on how to access the dataset. Otherwise, watch as the WHERE clause does its thing. Here's the database.

You might recognize it from past videos. Basically, it's a long list of movies. Each row includes an entry for the columns named Movie\_Title, Release\_Date, Genre, Director, Cast\_Members, Budget, and Total\_Revenue. It also includes a link to the film's Wikipedia page. If you scroll down the list, the list goes on for a long time. Of course, we won't need to go through everything to find the data we want. That's the beauty of a filter! In this case, we'll use the WHERE clause to filter the database and narrow down the list to movies in the comedy genre. To start, we'll use the SELECT command followed by an asterisk. In SQL, an asterisk selects all of the data. On a new line, we'll type FROM and the name of the database: movie\_data.movies. To filter the movies by comedy, we're going to type WHERE, then list the condition, which is Genre.



Genre is a column in the dataset, and we only want to select rows where the cell in the Genre column exactly matches "Comedy." Next we'll type the equals sign and write the specific genre we're filtering for, which is comedy. Since the data in the Genre column is a string format, we have to use single or double quotations when writing it. And keep in mind that capitalization matters here, so we have to make sure that the letter casing matches the column name exactly. And now we can click Run to check out the results. What we're left with is a shorter list of comedy movies. Pretty cool, right? Here's something else you should know. You can apply multiple filters to a database. You can even sort and filter data at the same time for even more precise results. As a data analyst, knowing how to sort and filter data will make you a superstar. That's all for now. Coming up, we'll get down to the nitty-gritty of sorting functions in spreadsheets. See you there!

### [TEST YOUR KNOWLEDGE ON ORGANIZING DATA FOR ANALYSIS](https://www.coursera.org/learn/analyze-data/quiz/ED6hz/test-your-knowledge-on-organizing-data-for-analysis)

## SORT DATA IN SPREADSHEETS

### [STEP-BY-STEP: SORT DATASETS IN SPREADSHEETS](https://www.coursera.org/learn/analyze-data/supplement/oafPC/step-by-step-sort-datasets-in-spreadsheets)

### [SORT DATA IN SPREADSHEETS](https://www.coursera.org/learn/analyze-data/lecture/6f6R0/sort-data-in-spreadsheets)

### [STEP-BY-STEP: USE THE SORT FUNCTION IN SPREADSHEETS](https://www.coursera.org/learn/analyze-data/supplement/fyqMb/step-by-step-use-the-sort-function-in-spreadsheets)

### [USE THE SORT FUNCTION IN SPREADSHEETS](https://www.coursera.org/learn/analyze-data/lecture/K6WB8/use-the-sort-function-in-spreadsheets)

### [SORT AND FILTER IN SHEETS AND EXCEL](https://www.coursera.org/learn/analyze-data/supplement/6xPhu/sort-and-filter-in-sheets-and-excel)

### [EMMA: JOURNEY TO A MEANINGFUL CAREER](https://www.coursera.org/learn/analyze-data/lecture/mt6RP/emma-journey-to-a-meaningful-career)

### [TEST YOUR KNOWLEDGE ON SORTING DATA IN SPREADSHEETS](https://www.coursera.org/learn/analyze-data/quiz/XI0Vz/test-your-knowledge-on-sorting-data-in-spreadsheets)

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## SORT DATA USING SQL

### [AP](https://www.coursera.org/learn/analyze-data/ungradedWidget/qLsKq/refresher-your-google-data-analytics-certificate-roadmap)

### [STEP-BY-STEP: SORT DATA WITH SQL](https://www.coursera.org/learn/analyze-data/supplement/wq3GZ/step-by-step-sort-data-with-sql)

### [SORT DATA WITH SQL](https://www.coursera.org/learn/analyze-data/lecture/P6Yu3/sort-data-with-sql)

### [HANDS-ON ACTIVITY: SQL SORTING QUERIES](https://www.coursera.org/learn/analyze-data/quiz/iAg3O/hands-on-activity-sql-sorting-queries)

### [HANDS-ON ACTIVITY: ANALYZE WEATHER DATA IN BIGQUERY](https://www.coursera.org/learn/analyze-data/quiz/yRIIz/hands-on-activity-analyze-weather-data-in-bigquery)

### [TEST YOUR KNOWLEDGE ON SORTING DATA WITH SQL](https://www.coursera.org/learn/analyze-data/quiz/XAmut/test-your-knowledge-on-sorting-data-with-sql)

## MODULE 1 CHALLENGE

### [GLOSSARY TERMS FROM MODULE 1](https://www.coursera.org/learn/analyze-data/supplement/8eOci/glossary-terms-from-module-1)

### [MODULE 1 CHALLENGE](https://www.coursera.org/learn/analyze-data/exam/xkntO/module-1-challenge)