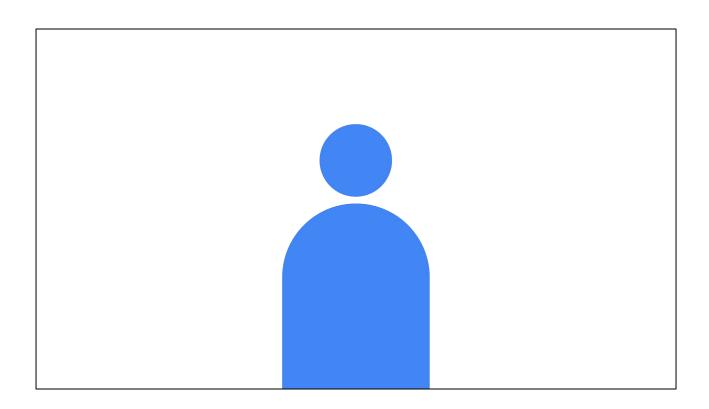


## Agenda 01 What is Looker? 02 Example 1: Looker User Interface

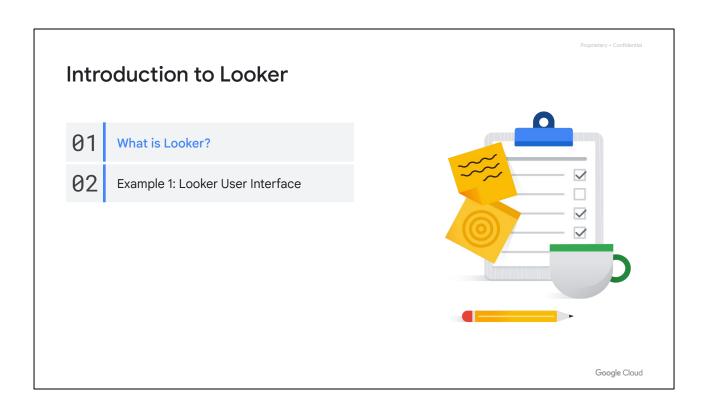
In this module, we'll begin with an introduction to what Looker is and how it can play a key role in your organization's data workflows.

Agenda			
01	What is Looker?		
02	Example 1: Looker User Interface		

Then, we'll end this introductory module with a walkthrough of the Looker user interface to highlight its key features for data explorers.

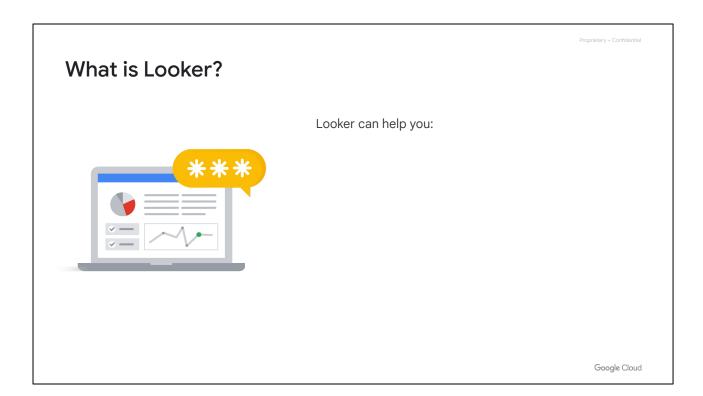


Let's jump right in!

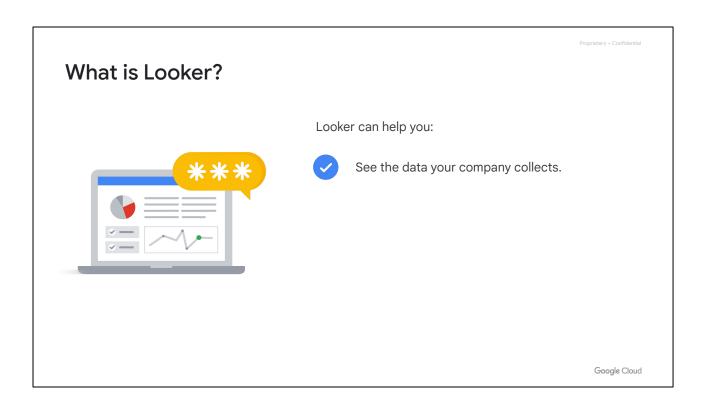


Looker is a business intelligence software and big data analytics platform that helps you explore, analyze and share real-time business analytics easily.

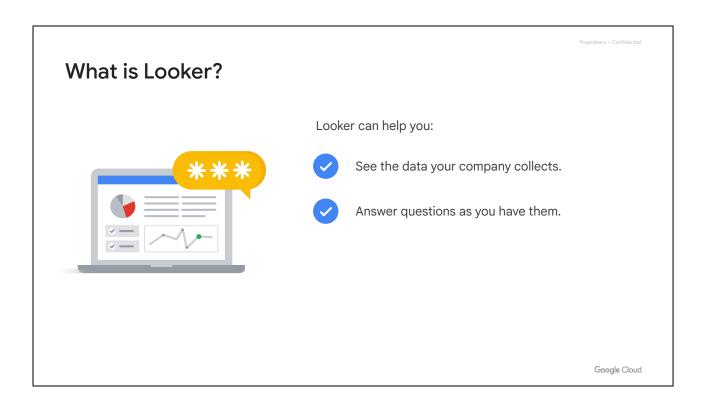
It helps you see the data your company collects and allows you to create custom visualizations and dashboards.



Specifically, Looker is a powerful tool that helps you...



Access and review the data your company collects.



Get your questions answered as you have them.

Proprietary + Confidential

## What is Looker?



Looker can help you:

- See the data your company collects.
- Answer questions as you have them.
- Stay up to date with the status of your business.

Google Cloud

Stay up to date with the status of your business.

Proprietary + Confidential

## What is Looker?

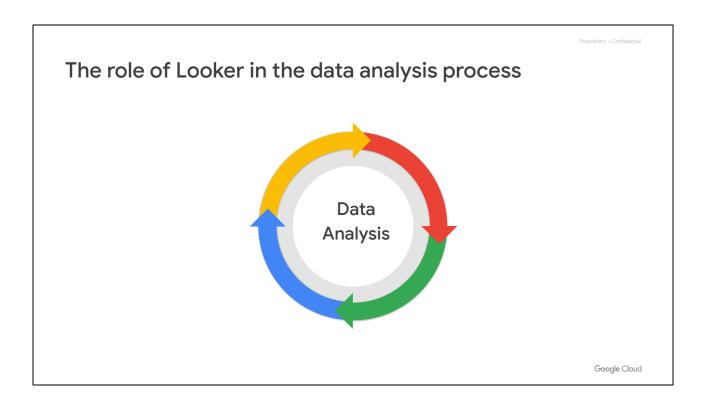


Looker can help you:

- See the data your company collects.
- Answer questions as you have them.
- Stay up to date with the status of your business.
- Use data for daily decisions, instead of waiting for reports.

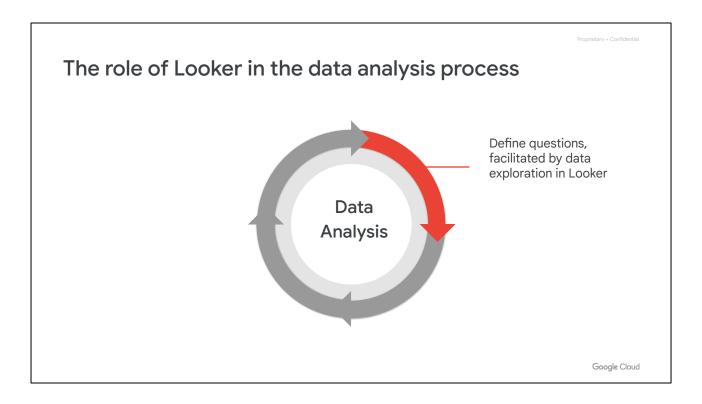
Google Cloud

Use data in your daily decisions instead of waiting to get a new report.

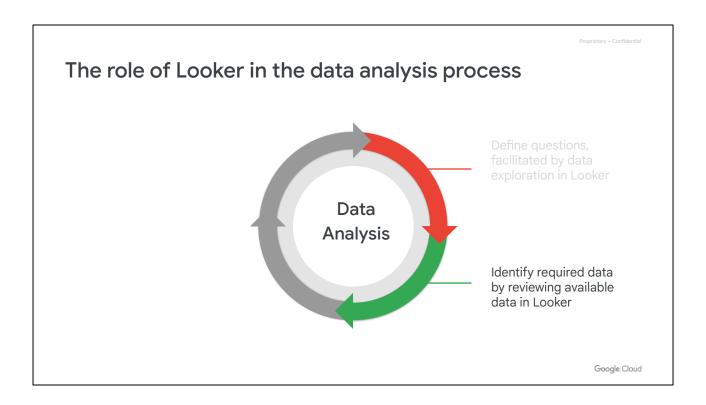


To consider how Looker can support your data workflows, let's examine the overall data analysis process and the role of Looker in this process.

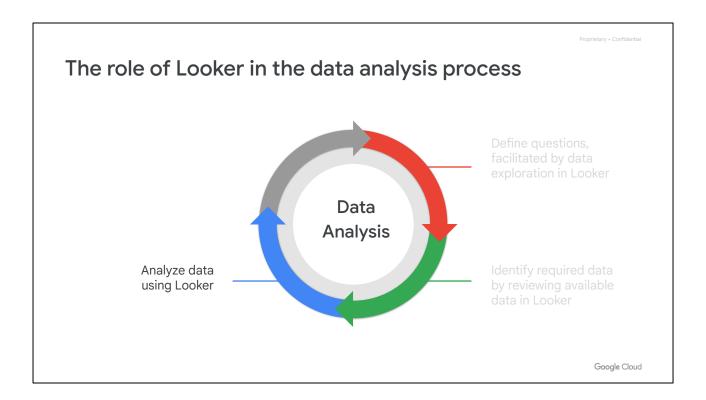
When working with data, it's important to have clear objectives. We suggest a data analysis process that includes the following components.



First, **define questions**. Identify what questions need to be answered using your data.

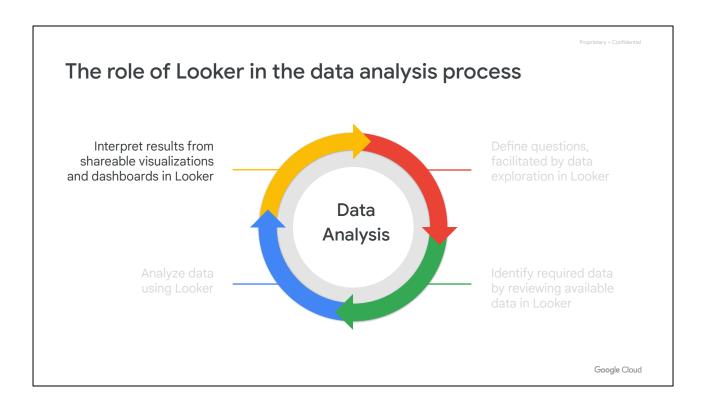


Next, **identify required data**. Determine the specific dimensions and measures you will need to answer those questions.

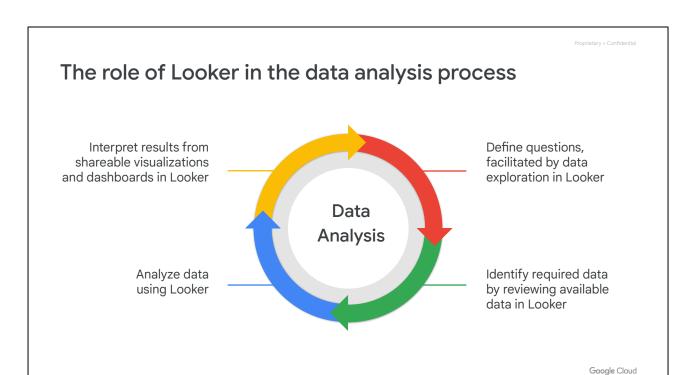


Next, **analyze data**. Explore the dimension and/or measure relationships via tables and visualizations.

This exploration of your data should empower you to take some kind of action or make some kind of decision with regard to your work.



Finally, interpret the results. Glean actionable insights from your analyzed data.

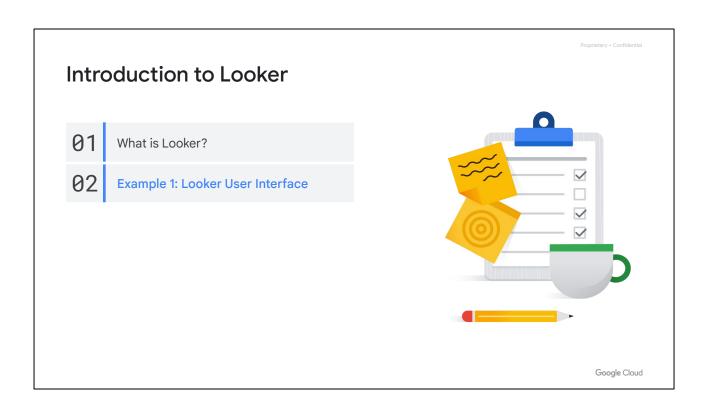


Looker can support you throughout this process. For example, you can explore your data in Looker to help you define questions and identify necessary datasets.

Then, you can use Looker to analyze and visualize data to answer your questions.

Last, you can share visualizations and dashboards with your stakeholders to facilitate discussion on the results and identify next steps.

Independent of the datasets used, this data analysis process is transferable and can provide a useful framework for thinking about how Looker can be integrated into your existing workflows.

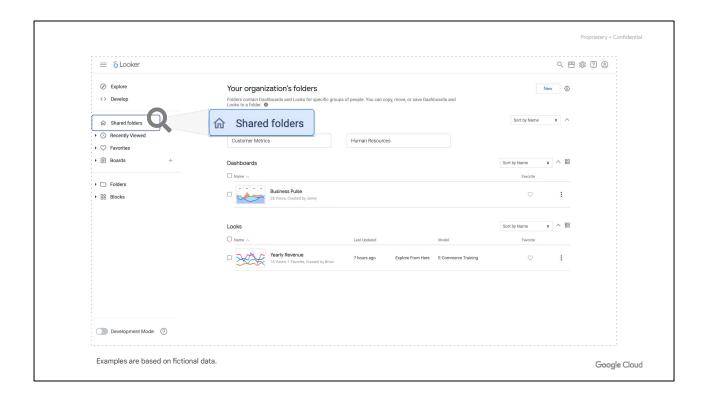


Looker is an enterprise platform for data experiences. Let's review how to navigate the Looker platform and how you can use it to explore your organization's data.

		Proprietary + Confidential
	გ Looker	
	Log In	
Email		
Password		
	LOG IN	
	Stay logged in. This is a trusted computer. You will be logged out automatically after a short while unless you indicate that this is a trusted computer.	
		Google Cloud

Looker is a browser-based cloud application, which means you access it by opening an internet browser like Chrome or Firefox, going to a URL, and logging in. For example, the URL for a company's Looker instance might be companyname.looker.com.

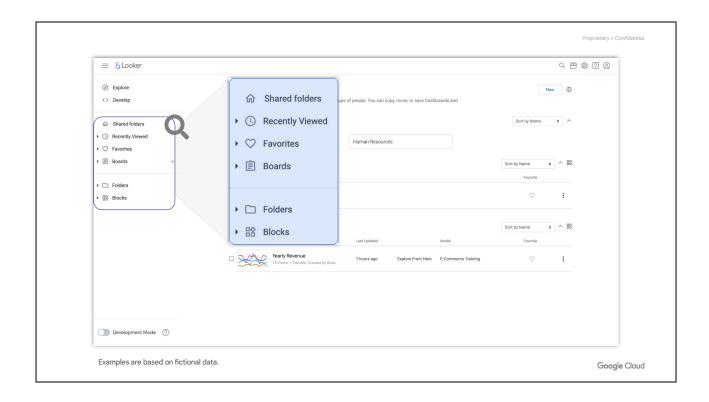
Typically, you can log in to an instance with an email and password combination, though your company might have single sign-on enabled. In that case, you would click on an "Authenticate" button to get in, without the need to remember or store separate credentials.



When you first log in to the Looker platform, your home page may vary depending on what your company's Looker administrator has configured.

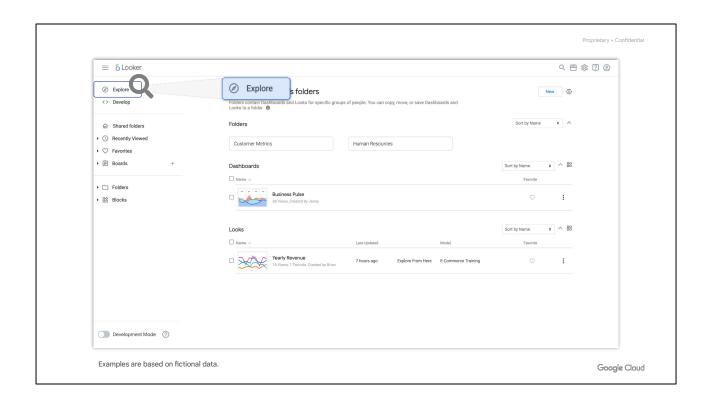
In this example instance, we are seeing the **Shared** folders. Folders in Looker are where content lives, just as files in your computer or Google Drive are stored in folders.

"Content" in Looker terminology refers to Looks and dashboards. Looks are standalone reports or visualizations, while dashboards contain more than one visualization. We'll dive deeper into all this as we explore this example Looker instance.

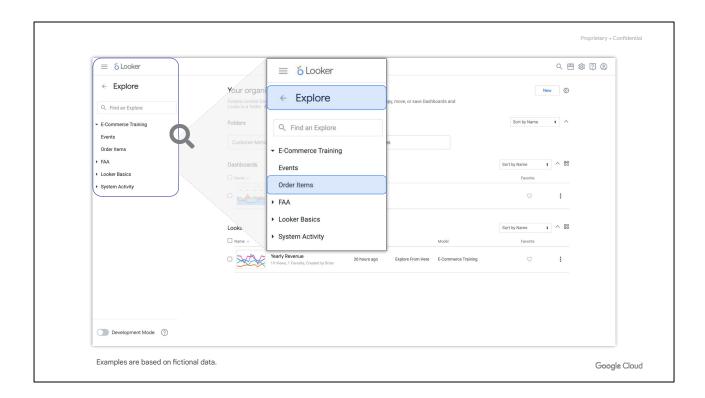


Let's review the navigation options available to different types of users in Looker.

First, the left-side panel provides the content navigation options for users that have been added to the Looker instance as data viewers, which are users who need to find existing information quickly and easily. Data viewers do not create their own reports and visualizations.



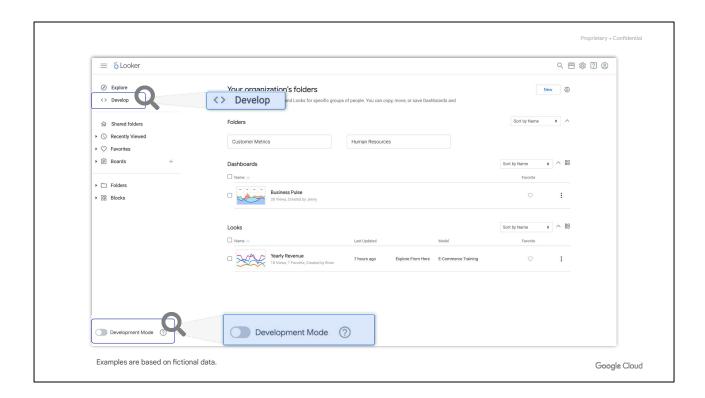
Now, if you have been added as a data explorer to a Looker instance, you will also see the **Explore tab** in the left-side navigation panel of the Looker UI.



As a data explorer, you use Explores to ask questions of your data and create visualizations and reports that can be shared with others such as data viewers. For example, if you wanted to know something about orders, you'd choose something like an **Order Items** Explore.

Explores are curated by Looker developers in a proprietary templating language called LookML. The Explores that you have been given access to will be listed under this **Explore** tab.

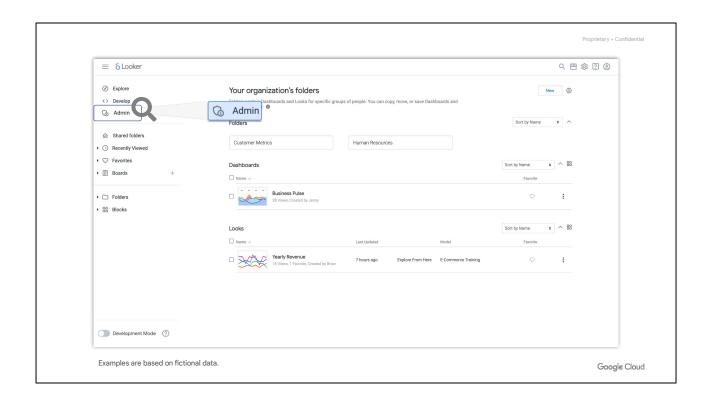
The **Explore** section of Looker is where we'll be spending the majority of our time in this walkthrough.



Next, the **Develop** menu is used by LookML developers to curate the Explores that are accessible to data explorers via the **Explore** tab.

Within the **Develop** environment, developers can specify which fields are available in each Explore, how each field appears, and the logic or behavior for each field. Developers can use the toggle button at the bottom left-side of the UI to enter **Development Mode** to make and test changes to LookML code before sending the changes to production.

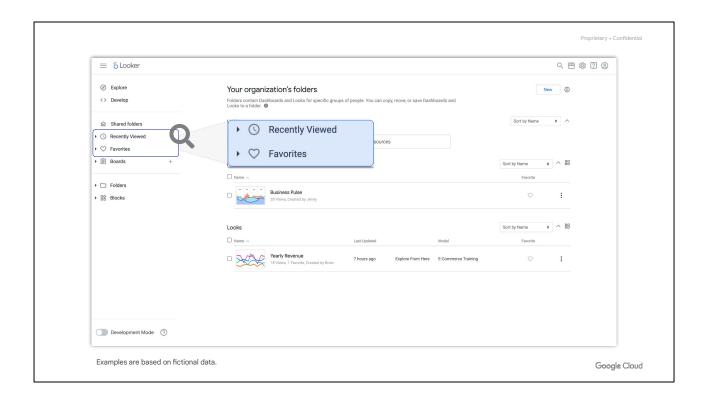
At your organization, you may not see a **Develop** menu if that is not part of your role. We will not review the options in the **Develop** environment in this walkthrough, as we will work with Explores that have already been created by LookML developers.



Finally, Looker administrators use the **Admin** menu to configure the users, permissions, and other settings for the Looker instance such as database connections.

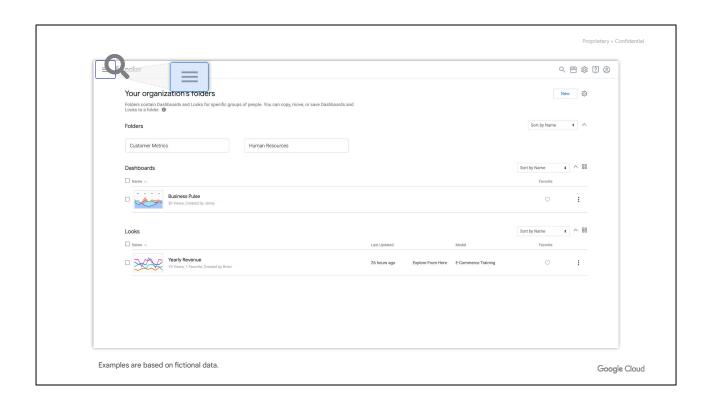
Again, in your organization's Looker instance, you may not see an **Admin** menu if that is not part of your role. We will not be using the options in the **Admin** menu in this walkthrough either.

In this walkthrough, we will focus on resources available through the **Browse** and **Explore** menus, which provide the key options for data explorers to access, analyze, visualize, and share data.

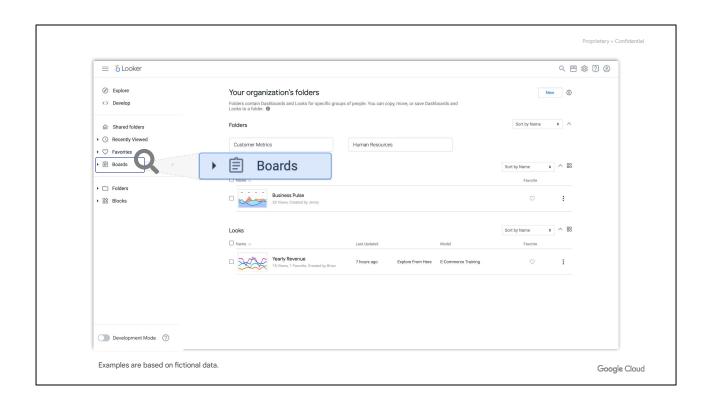


From the left-side navigation panel of the Looker UI, you can access your recent Looker content browsing history in **Recently viewed**. This might be useful if you need to access a report from a day or two ago, but can't remember what it's called or aren't sure where to look for it.

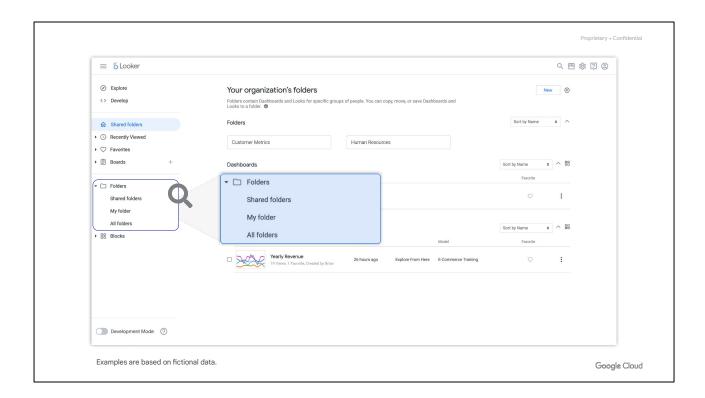
When you do find something that you want to save for future reference, you can add it as a favorite—and then access your list of **Favorites** from here. This section will contain all of your bookmarked dashboards and Looks.



A useful feature that you can use is the **menu** icon in the top left corner of the page to collapse or expand the left-side navigation panel anytime.



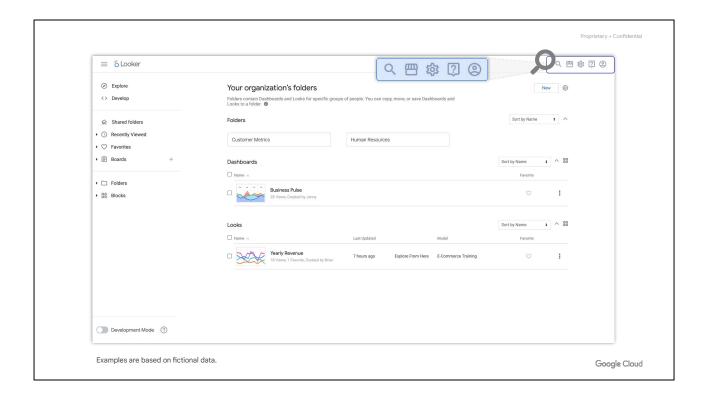
Moving on, **Boards** serve as a useful way of organizing content, such as saving multiple Looks and dashboards onto one board that you can share with others.



Finally, if your Looker administrator has installed any **tools** or **Blocks** (which are pre-built data models from the Looker Marketplace), they would also show up in the left-side navigation panel. Applications are not in the scope of this walkthrough.

Each user has a personal folder with their name on it; in the current view, it is labeled as **My folder**. For you as a Looker user, this is your own scratch space for works in progress, as well as a storage space for content that is only meaningful to you or your role.

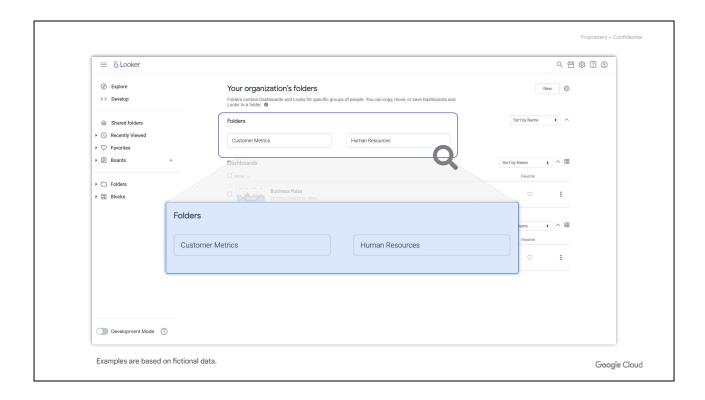
Finally, expanding the **Folders** menu allows you to see additional folders beyond the **Shared folders**. For example, you can go to the **People** folder under **All folders** to see other users' personal folders.



Now, in the top right corner, you'll see four icons:

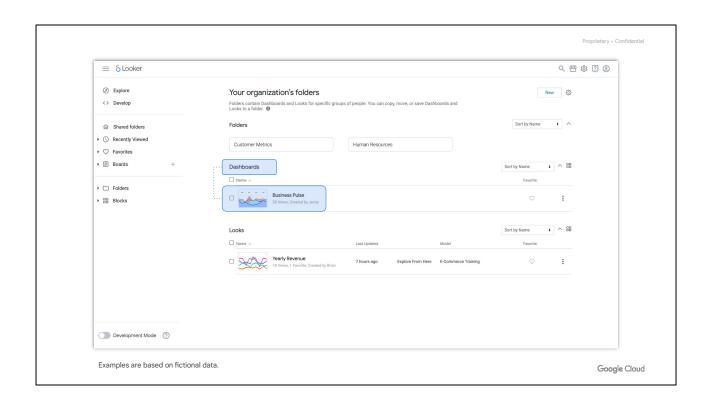
- The magnifying glass allows you to search across the Looker instance by keyword and also links you back to Looker Connect for learning assistance.
- 2. The **Looker Marketplace** is where you can find applications and tools to get more out of your data.
- 3. The **help** icon provides links to chat support, docs, a user guide, and more.
- 4. And the **user** icon is where you'll find access to information associated with your Looker account.

Additionally, if you have admin access, a fifth **gear** icon will appear between the **Looker Marketplace** and **help** icons that allows access to the admin settings page.



Let's shift our focus to the **Shared folders** page, and explore folders and content.

**Folders** contain Looks and dashboards for specific groups of people. You can copy, move, or save Looks and dashboards to a folder. Folders can also contain sub-folders.



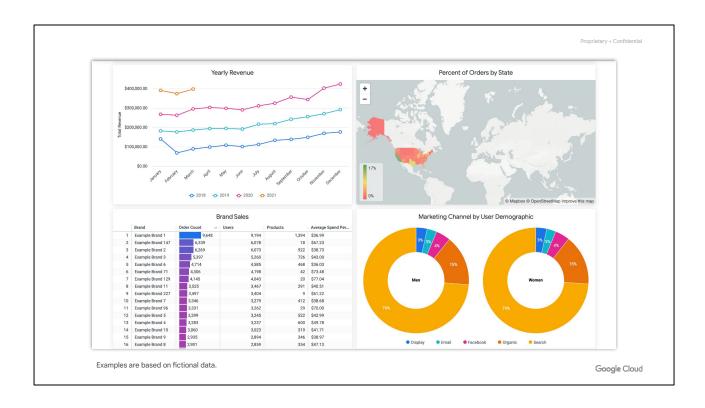
The **Dashboards** section shows various pieces of data in one location, like the Business Pulse dashboard, for example. Each section of a dashboard is referred to as a single visualization or tile.



Okay, let's examine a dashboard. In our ecommerce company, we want to see how business is going at our company, so we can click on the "Business Pulse" dashboard.

Dashboards in business intelligence show you various pieces of information about some overall topic or domain, similar to how a dashboard on a car shows you various aspects of your car's performance: how quickly you are going, how much gas you have left in the tank, whether your headlights are on, and so on.

So in "Business Pulse" you can see some key metrics that a typical ecommerce company would care about: the number of users, average amount they spend per order, average amount each spends in their lifetime, number of orders so far this year, and how that compares to the same point in time last year. We call these single-value visualizations.

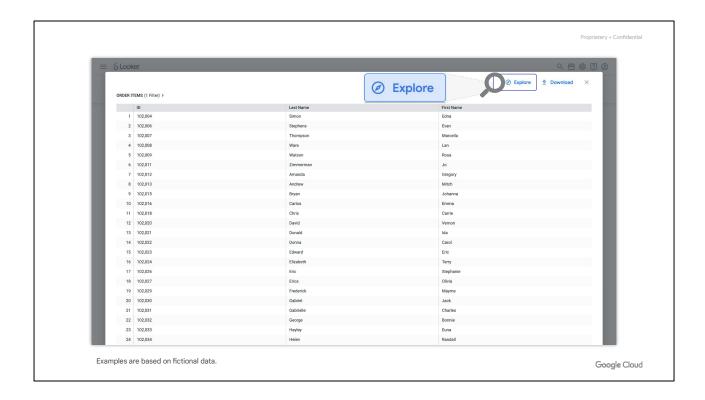


Scrolling down the dashboard, you can see some other visualization types Looker supports out of the box including area and line charts, maps, tables, donut multiples, and column charts.



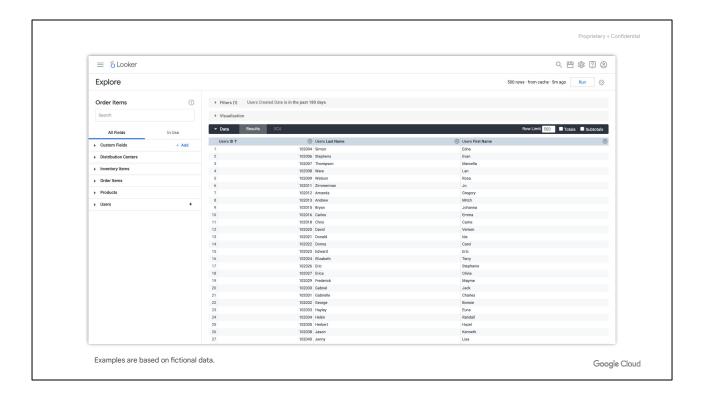
Now let's say you work in Marketing, and you want to see some more information about new users, maybe because you want to send them a promotional code to thank them for registering on our ecommerce platform.

In Looker, you can click on a visualization to "drill down," meaning you can see a more detailed breakdown of the data.



Clicking on the number for New Users Acquired shows you details about these new users: their ID, First Name, and Last Name.

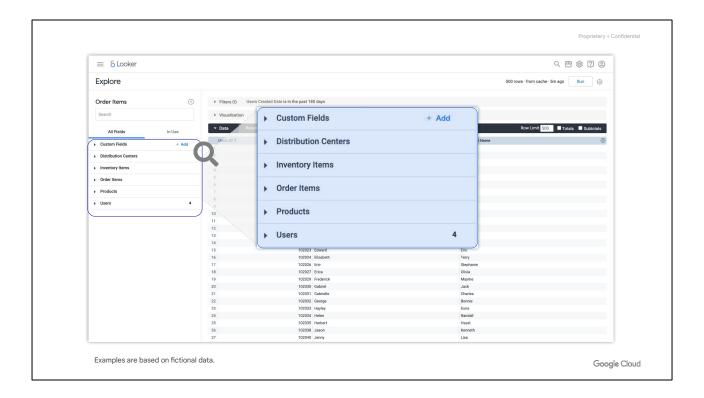
But, what if you want to know more about them, like their ages and locations? If you have permission to access the underlying data, you will usually find an option to **Explore** or **Explore from Here** to drill down into additional information.



Clicking on this option takes you out of the dashboard and into a separate interface called the Explore.

Yes, this is a different part of Looker. From this point on, you can work with the underlying data through the Explore without affecting the "Business Pulse" dashboard that you were just viewing.

We've mentioned Explores a few times, so you may be wondering what exactly is an Explore? Well, an Explore is a report-builder interface as well as a portal to ask questions of your data.

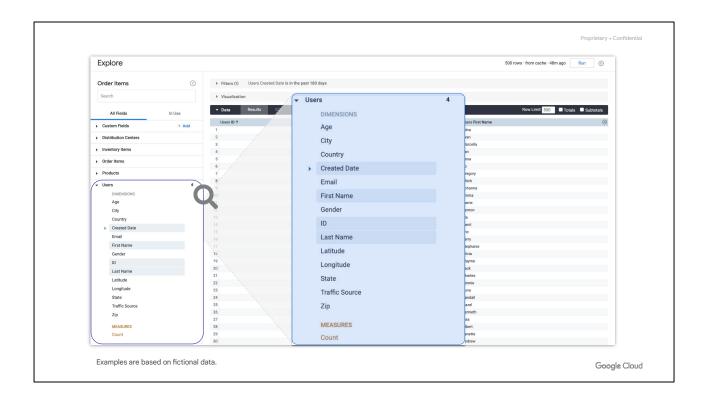


To the left of the screen is the field picker. Fields are bundled in these expand-collapse menus called views. Each view is a related concept.

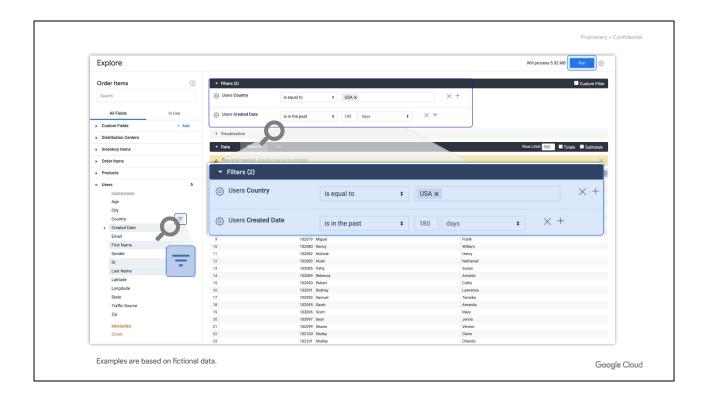
Since you are in the **Order Items** Explore, you have a view for order information, such as when an order was created, its ID, its status, and so on.

However, orders do not exist in a vacuum. They are ordered by people, or *users*. The goods come from *inventories*. The goods have *product* information such as brand and category. And they come from *distribution centers*.

As you explore order data or assemble a report about orders, you may need to include fields from some or all of these other views. That is why they are all offered together in this **Order Items** Explore.



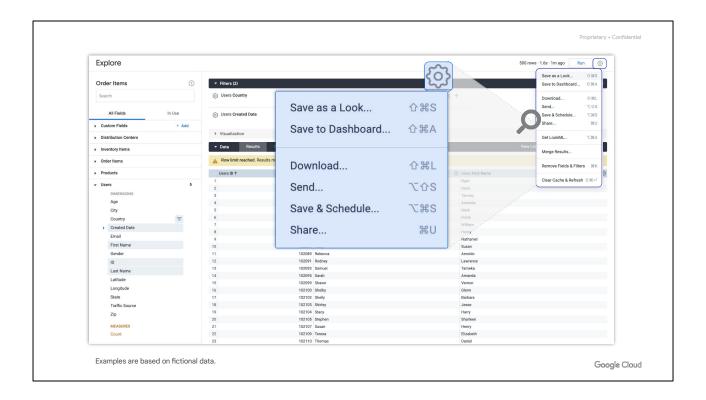
Let's expand the **Users** view. Each view has dimensions at the top, which are attributes of the data, and measures at the bottom, which are aggregations of the data attributes.



For now, let's continue our narrative as a marketer trying to send these new users a promotional code to thank them for registering on our ecommerce platform.

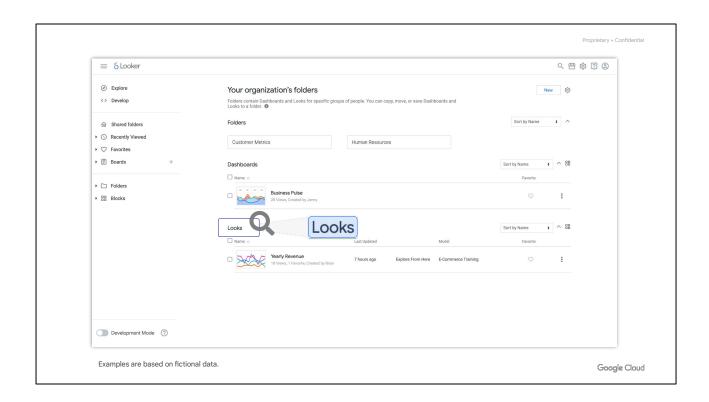
Maybe your promotion is only applicable to users in the United States; you could filter on **Country** and make it "is equal to USA". After adding, removing, or modifying fields in the Explore, you always need to click the **Run** button in the top right corner.

Just like that, you have asked a question of the data—Who are the people who joined our website in the past 180 days and live in the USA?—and received your results.

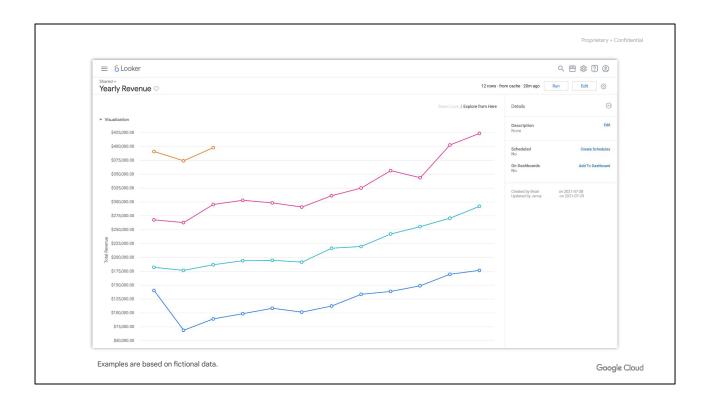


Now, from here, you could click on the gear icon to:

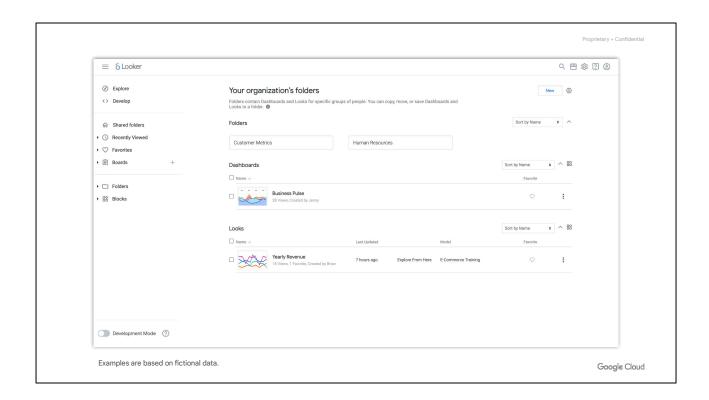
- save this as a Look for future reuse.
- save it to a dashboard, if you plan to gather more related, but separate, information.
- download it to your computer in a format such as CSV or spreadsheet.
- or send it to a colleague for review and next steps.



Back on the **Browse** page, you can also see a list of available **Looks**. Unlike a dashboard, a Look is a single report.



For example, a Look called **Yearly Revenue** is a standalone report of yearly revenue for 2018 to 2021 displayed in a single visualization.



Now, after this brief overview of the Looker User Interface, we hope that you are excited to explore Looker some more to analyze and visualize your data.

## Summary

What Looker is and what is its role in the data analysis process.

Walkthrough of the Looker user interface and its key features.

In this module, we started with introduction to Looker, including a review of its role in the data analysis process.

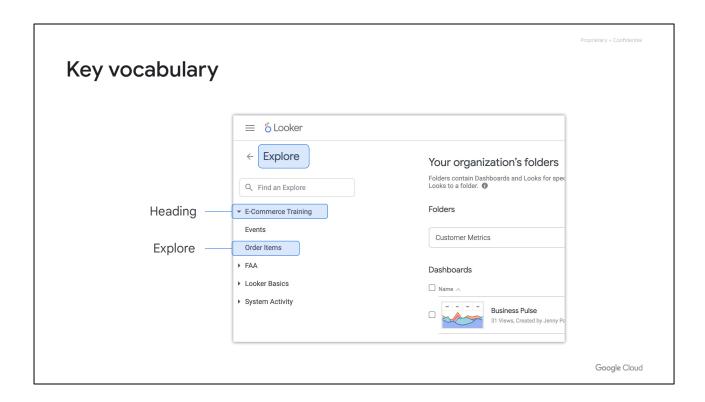


What Looker is and what is its role in the data analysis process.

Walkthrough of the Looker user interface and its key features.

Then, we completed a walkthrough of the Looker user interface and its key features.

To wrap up this module, let's review a few key points about the Looker user interface.

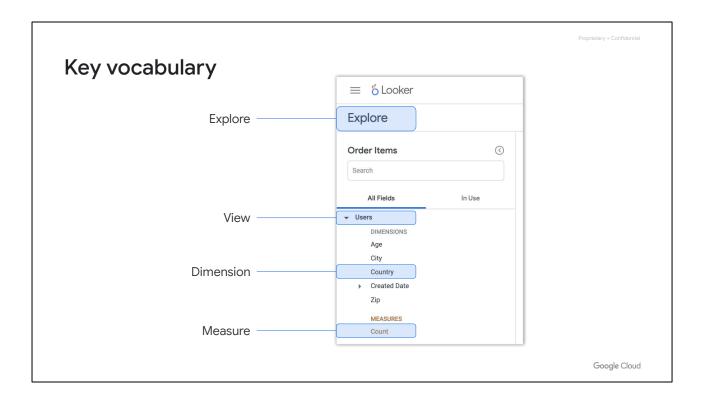


Explores are the central component of Looker that allow business and data analysts to conduct self-serve data exploration, analysis, and visualization.

Explores are curated by Looker developers using LookML (a proprietary templating language) and are typically composed of a single dataset, such **Order Items** which contains information related to items that have been ordered.

Explores are organized under headings, such as **E-Commerce Training**, so that users can easily access related data.

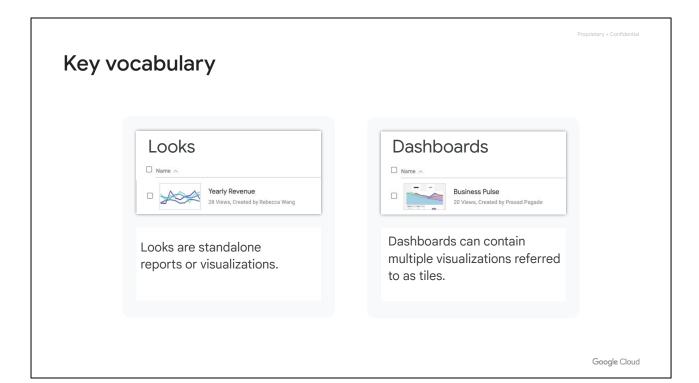
In the Looker User Interface, you can see all of the Explores that you have access to under the **Explore** options on the left-side navigation panel.



Within an Explore, the data are organized into views, which typically represent a single table in a database, such as a table containing information about **Users**.

Views contain dimensions, which are data attributes such as the **Country** where a user lives, and measures, which are aggregates of dimensions such as **Count.** 

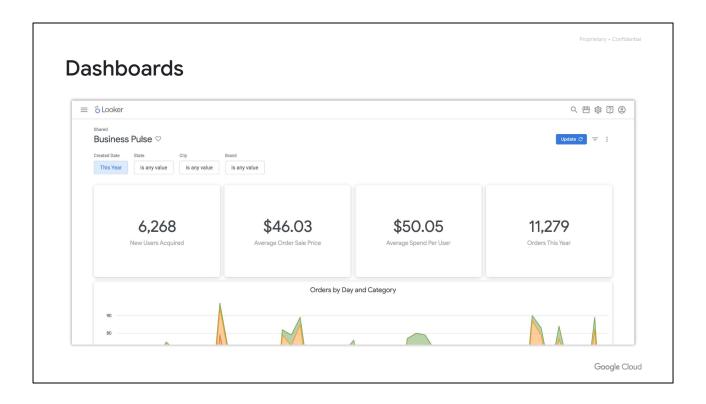
You can use Explores to combine dimensions and measures to answer questions and create visualizations of the results, such as a bar chart of the number of users per country.



Once you have obtained the desired results and created a visualization in an Explore, you can save the results as a Look, which is a standalone report or visualization. You can also save your results to a dashboard, which can contain more than one visualization.

Each visualization in the dashboard is referred to as a tile. For example, recall that the New Users Acquired visualization is a tile in the Business Pulse dashboard.

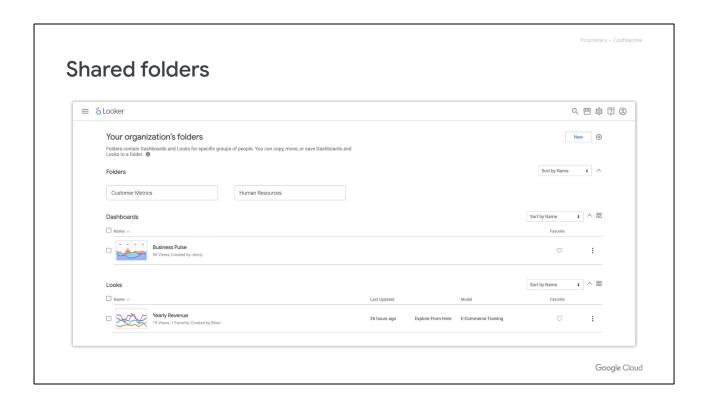
Both Looks and dashboards can be saved to multiple boards, which can contain links to multiple Looks and Explores and can be easily shared with others. This means that when the underlying dashboards and Looks are updated, the board shows the latest version.



As Dashboards contain multiple visualizations, they show you various pieces of information about some overall topic or domain, similar to how a dashboard on a car shows you various aspects of your car's performance.

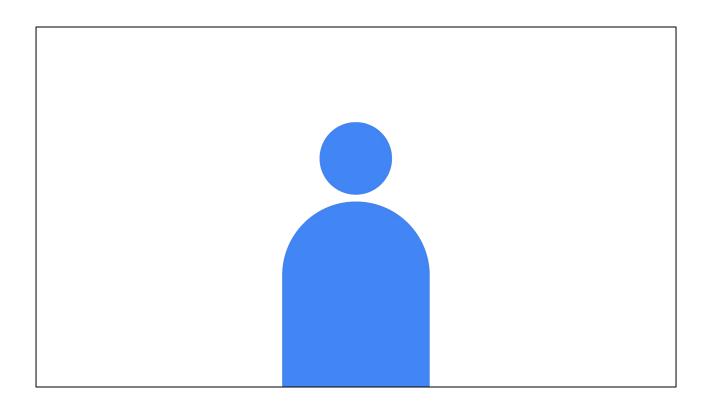
For example, the Business Pulse dashboard shows the number of new users acquired, average amount they spend per order, average amount each spends in their lifetime, number of orders, and so on.

Looker supports many kinds of visualizations out of the box, and you'll try some of them in the hands-on labs.



In Looker, Looks and dashboards are all stored in folders, just as files on your computer or Google Drive are stored in folders. Folders can contain any number of subfolders.

**Shared folders** is the home or root folder for the entire Looker instance.



Now that we have a basic understanding of Looker and its key features, we can dive into the core analytics concepts of Looker in the next module to start analyzing and visualizing data.