

A top-down view of a person's hands using a laptop. The laptop screen displays a Google Analytics dashboard with various charts and data points. The background is a dark blue overlay with a desk scene including papers, a pen, and a coffee cup.

# Visualize your Marketing KPI with **Google Data Studio**.

An introductory how-to guide on how to create charts and tables using Google's free, cloud-based data visualization tool.



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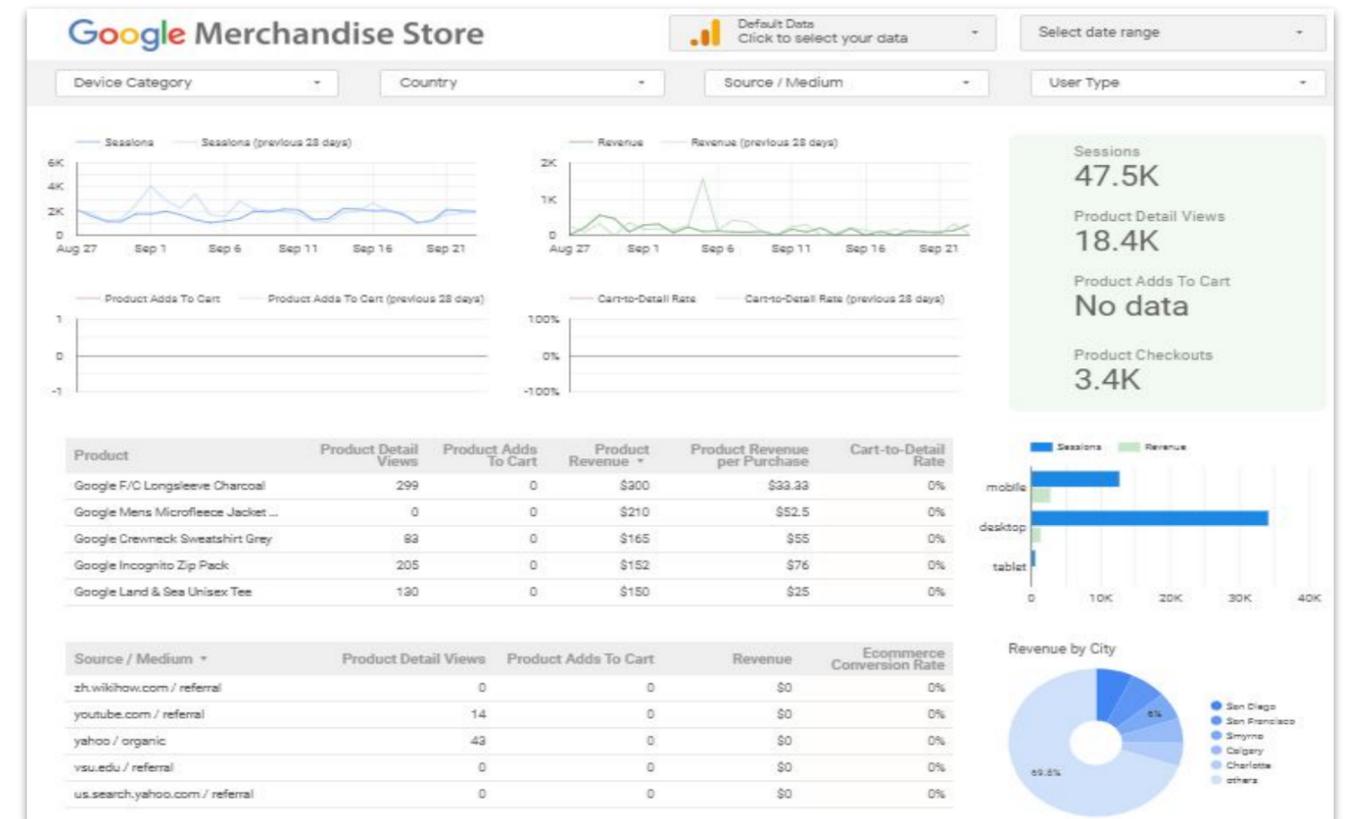
# Overview.

## OVERVIEW

# What is Google Data Studio?

Data Studio is Google's free-to-use offering that allows you to connect to popular marketing, web analytics and CRM platforms. Fully customizable, it allows you to create real-time reports and dashboards that visualize the KPI that matter to you most.

- Visualizations include tables, pivot tables, charts and graphs (bar; pie; line), as well as geo maps and metric call outs.
- You can set standard visualizations using report or page-level filters and data controls, or you can make your dashboards more interactive with customized controls.
- Style your dashboard with various fonts, colours, shapes as well as images or embedded URLs
- Connect to first-party Google data sources or leverage the multitude of brand-safe third-party data sources available



Google Data Studio allows you to combine charts, tables, maps and other visualizations within a fully customizable and shareable layout.

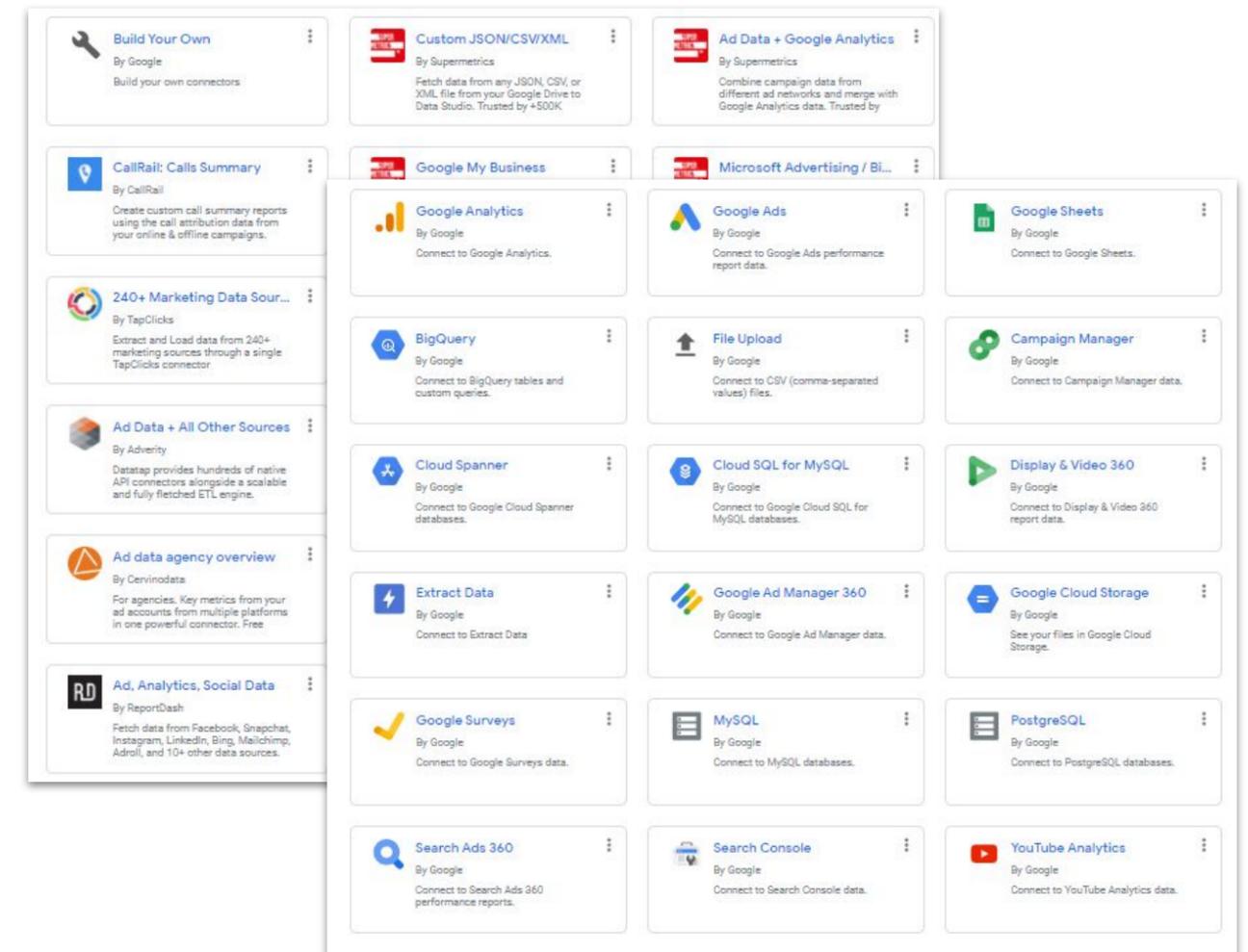
## OVERVIEW

# What are data sources?

The first step to creating your report is selecting a data source. Simply put, a data source represents a connection to the platform whose data you wish to visualize. They can represent marketing platforms like Google Ads, analytics suites or query databases, as well as spreadsheets and other raw data sources.

Google offers a full suite of first-party data sources, as well as the ability to leverage third-party ones as well.

- Data sources are the platform whose metrics and KPI you wish to report on
- Data sources can be blended with other data sources to create aggregated metrics that allow you to see a more holistic view of your goals at a glance
- Control data source access by using your own login/authentication credentials or use the viewer's credentials



*Data Studio allows you to connect Google's core products, but third-party connections are also available for popular products like Facebook, Amazon and more. It's important, however, to only use data sources from credible providers.*

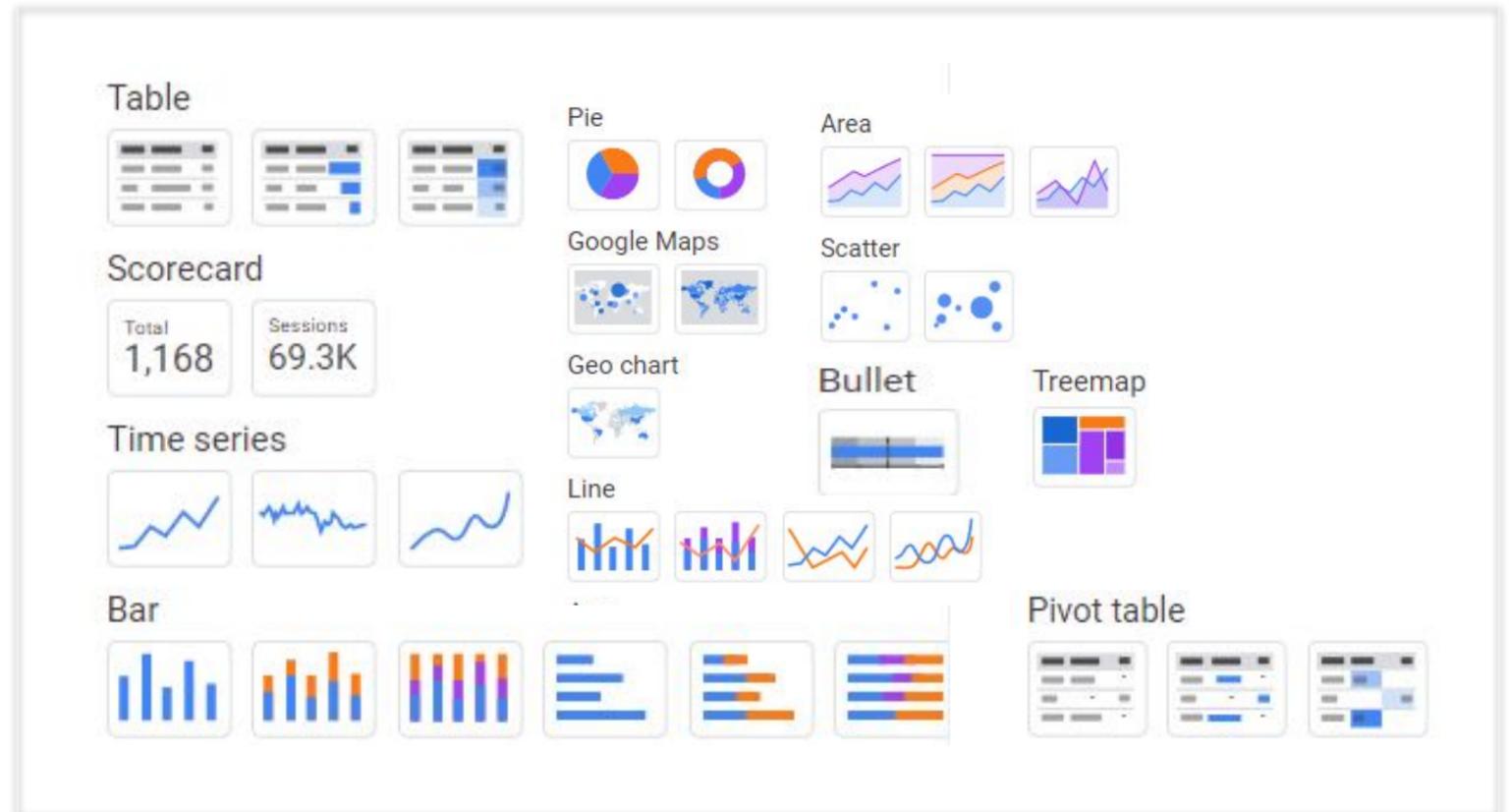
## OVERVIEW

# Displaying your data.

In Data Studio, a chart displays data from one or more fields. These fields are the dimensions and metrics provided by the data source attached to that chart. How the data appears depends on the type of chart and how you've styled it.

The most common chart types include:

- Tables and pivot tables that display column and row headings, and their metrics
- Pie, line and bar charts that display the sum, average or percentage share of your metric
- Time series that show metrics over a specified period of time



# Dimensions vs metrics.

## Dimensions

vs.

## Metrics

Dimensions are attributes of your data. They're the category you're using to group your analysis.

Common dimensions include:

- Location
- Time
- Date
- URL
- Page
- Source
- Medium
- Campaign
- Device

Metrics are quantitative measurements. They're the quantifiable and measurable results you're analyzing. Common metrics include:

- Users
- Sessions
- Avg Time on Site
- Pages / Session
- Bounce Rate
- Clicks
- Spend
- Transactions
- Revenue

Before creating your report, it's important to first think about not only what you wish to visualize, but also how you want to visualize it. We recommend creating an outline or sketch before getting started.

# Creating a Report.

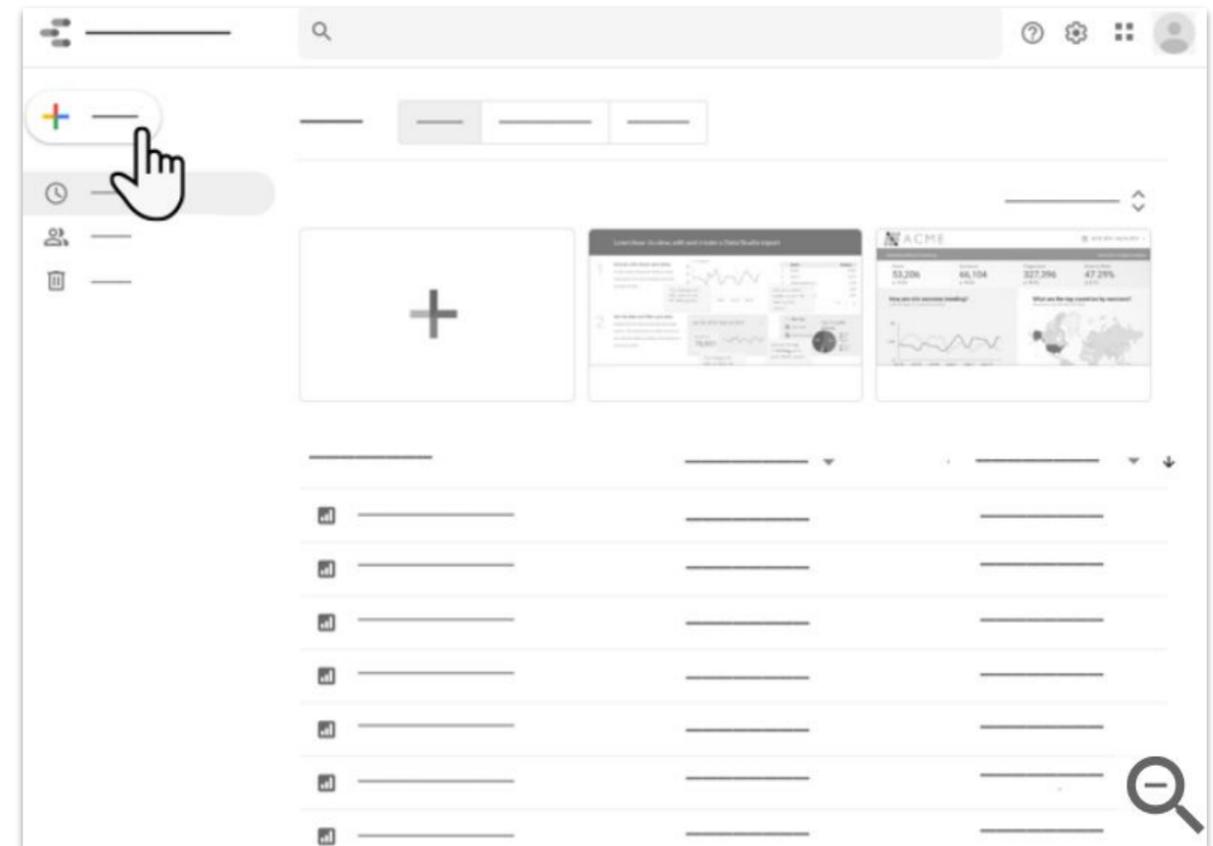
## CREATING A REPORT

# Step 1: Create a New Report.

When you sign in to Data Studio, you'll see the home page with the Reports tab selected. All the reports to which you have access appear in the middle of the screen. The plus buttons let you create a new blank report, or start with a pre-built report template.

### Create a report

1. In the top left, click Create. 
2. You can select 'Blank' report to start from scratch or you can select from the reports you've already created
3. Doing so will take you to the Report Editor mode



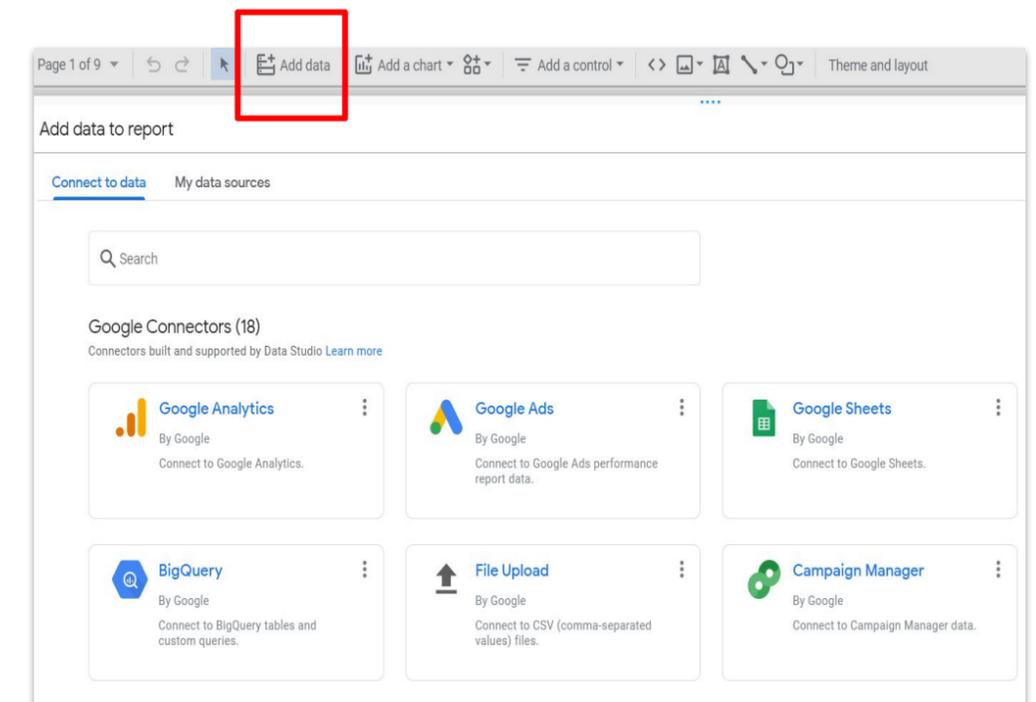
## CREATING A REPORT

# Step 2: Connect Your Data.

When you first create a report or open an existing one, the 'Add Data' to report panel opens. This lets you A) configure an existing data source, or B) create a new data source.

### Add data to a report

1. Click the 'Add Data' button at the top of your report  Add data
2. Choose from one of the many Data Sources available, such as Google Analytics or Google Ads
3. If this is the first time adding this specific data source to your report, you'll be prompted to login and authenticate the connections
4. Depending on the Data Source type, you'll be prompted to select a subset of data. For example, the 'View' in Google Analytics
5. Next, click add.
6. You'll get an overview of which dimensions and metrics will be imported
7. If you wish to change the data or style, you can do so by configuring the properties panel.
8. You can also rename the data source if you do not wish to use the default name

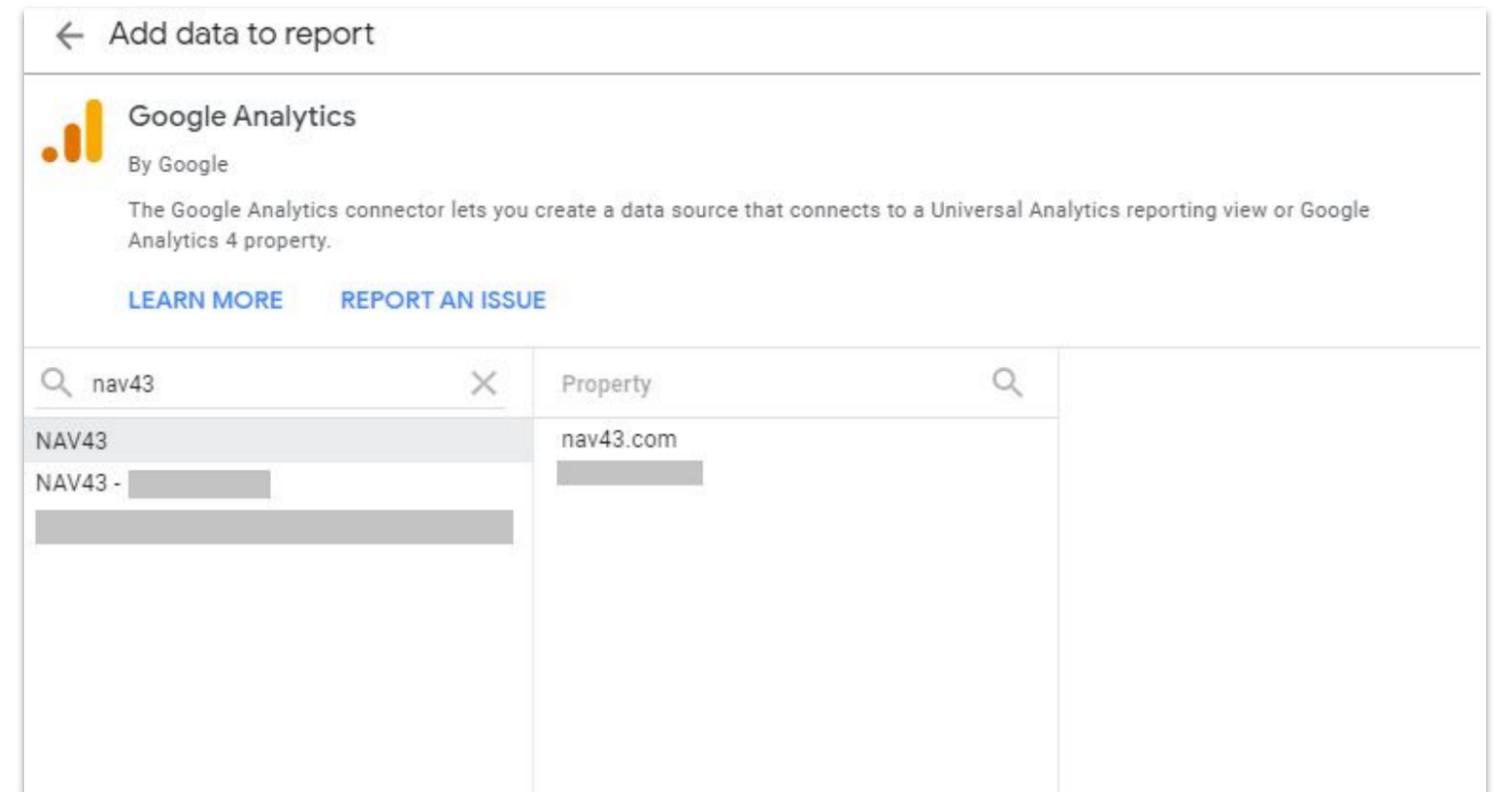


# Step 2A: Connect Google Analytics.

One of the most common visualizations that marketers will need to use is Google Analytics data. You'll be able to add in all standard GA metrics after you've authenticated access with your Google account. Remember: Google Analytics data sources are configured at the View level.

## Add Google Analytics data to a report

1. Click the 'Add Data' button at the top of your report
2. Select Google Analytics
3. We recommend logging in using the same credentials as you are using in Data Studio
4. Select the appropriate view you wish to visualize



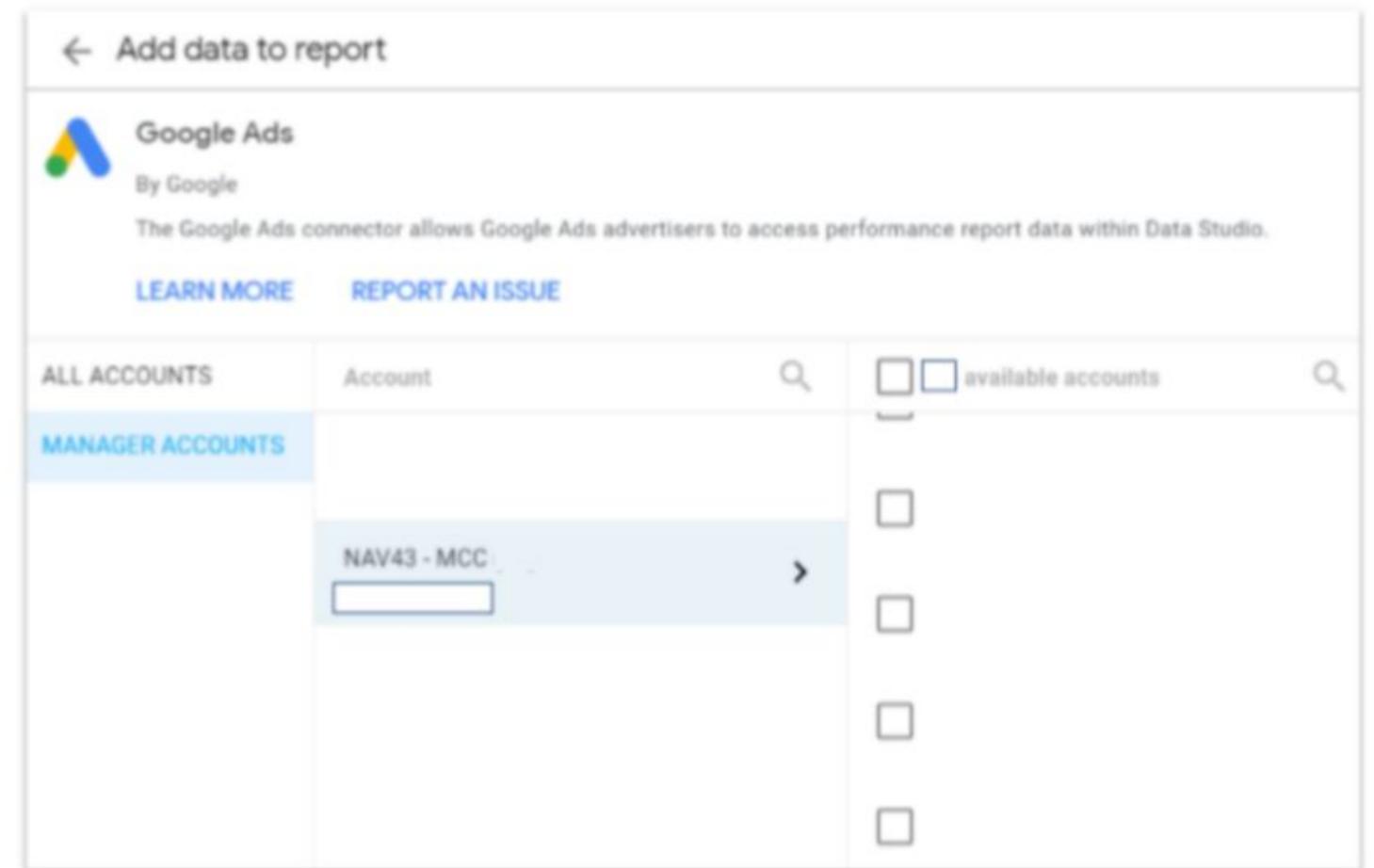
## CREATING A REPORT

# Step 2B: Connect Google Ads.

Adding Google Ads is simple and straightforward. This unlocks advanced charts and visualizations that are not available within the Google Ads platform.

### Add Google Ads data to a report

1. Click the 'Add Data' button at the top of your report
2. Select Google Analytics
3. We recommend logging in using the same credentials as you are using in Data Studio
4. Select the appropriate account you wish to visualize



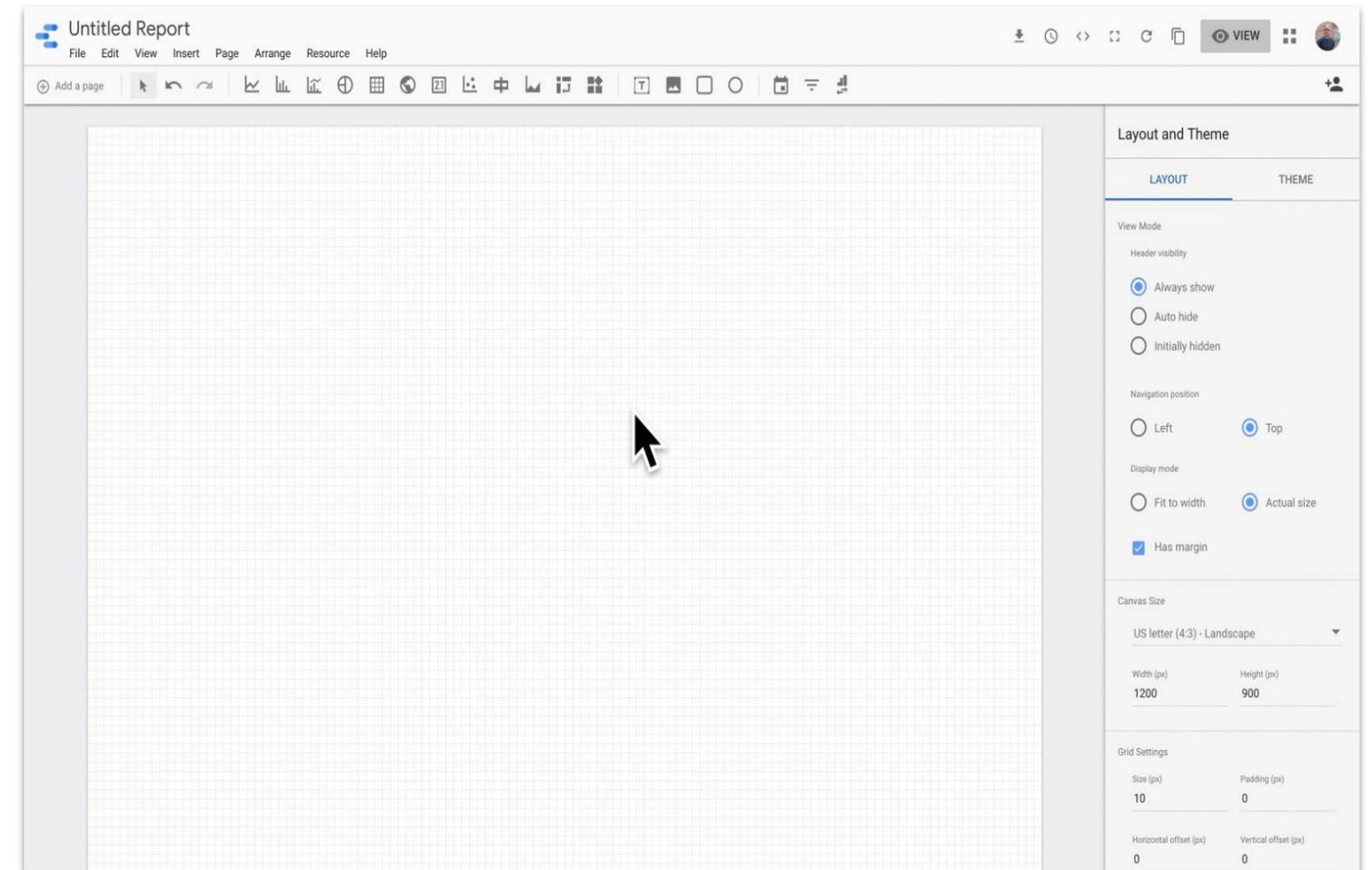
## CREATING A REPORT

# Step 3: Add Your Charts.

Charts represent the various visualizations you can add to your report. Each chart is connected to a specific Data Source. You can edit the properties using the Data tab or customize the appearing using the Style tab.

### Adding charts to a report

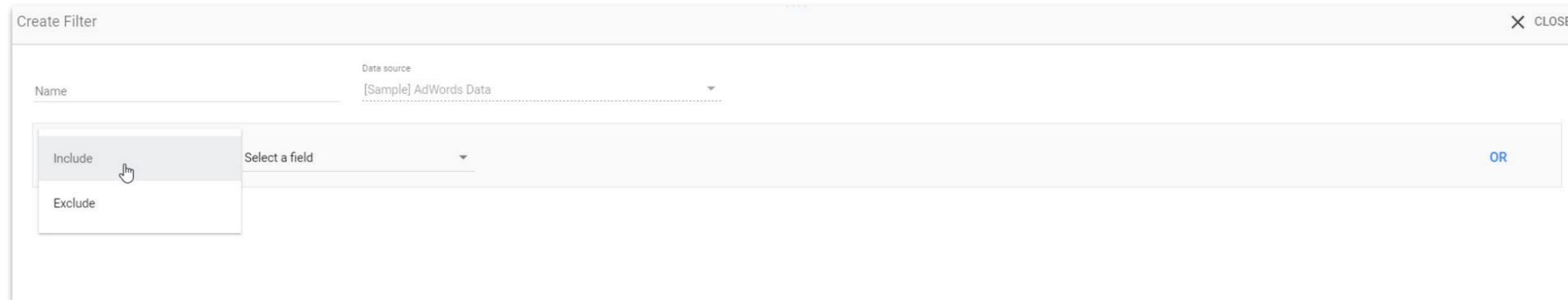
1. Click the 'Add a Chart' button at the top of your report  Add a chart ▾
2. Select from one of the many chart types available
3. Depending on the chart, you'll need to select one or more dimension, as well as the metrics you wish to measure
4. Setup filters as appropriate and style your chart as desired



## CREATING A REPORT

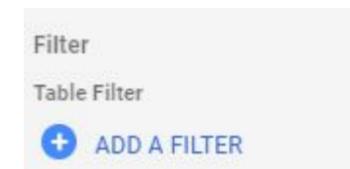
# Step 3A: Filtering Your Charts.

Once you have a Data Source added to your report, you can apply filters to a specific chart or group of charts.



## Filtering your charts

1. Select a chart, and in the Data tab on the right-hand side click the 'Add a filter' button
2. Next choose whether you want to include or exclude specific dimensions or metrics
3. Choose your matching condition
  - Equals - an exact match of the value with no spaces or additional characters (This is case sensitive)
  - Contains - can match values with additional characters (This is still case sensitive)
  - Starts with - can match when values with additional characters to the right-hand side of your input
  - Regexp Contains - matches against the regular expression anywhere in the data. Using `(?i)` ignores case.
  - Regexp Match - The dimension value matches the regular expression.
  - In - Works just like "Equals" but allows for comma-separated values
  - Is Null - returns 'null' (no input) entries
4. Enter inputs and save your filter



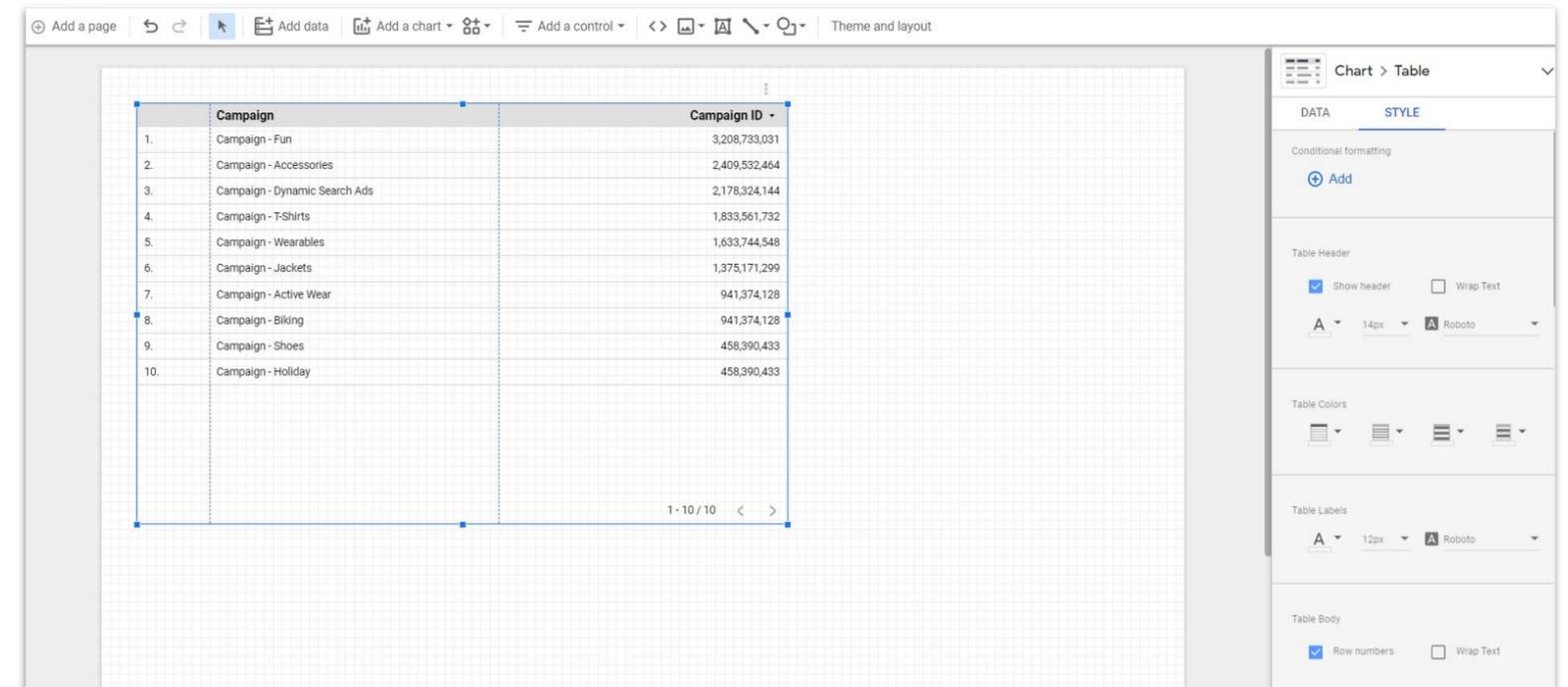
## CREATING A REPORT

# Step 3B: Styling Your Charts.

One of the biggest draws to using Google Data Studio is the ability to customize visualizations to match your brand's aesthetic.

### Styling your charts

1. Select the chart you wish to style and navigate to the 'Style' tab on the right-hand side
2. Here you'll be able to update several fields, depending on the chart type.
3. Edit the font, color, header/ row design, pagination and more



## CREATING A REPORT

# Step 3C: Calculated Fields.

Calculated fields take standard metric outputs and, like the name suggests, apply a calculations. For example, you can create a new field that adds up two or more metrics. You can also add standard calculations like addition, subtraction, multiplication or division. For example, you can create a field that subtracts business costs from your revenue to automatically calculate true profit.

### Creating calculated fields

1. In the 'Edit Data Source' view, click the 'Add a Field' button 
2. This brings up a list of dimensions and metrics



3. You can either drag and drop from the list on the left-hand side, or you can begin typing in the formula box and the appropriate dimension will appear to choose from
4. Use standard operators like "+", "-", "\*", "/" to create your custom formula

# Step 3D: Blending Data Sources.

Blending data sources allows you to view aggregated metrics across different platforms. The **easiest** way to blend data sources is to select charts that visualize the various data sources you wish to blend. (Pro-Tip: It's much easier than clicking the "Blend Data" button!) 

## Blending data

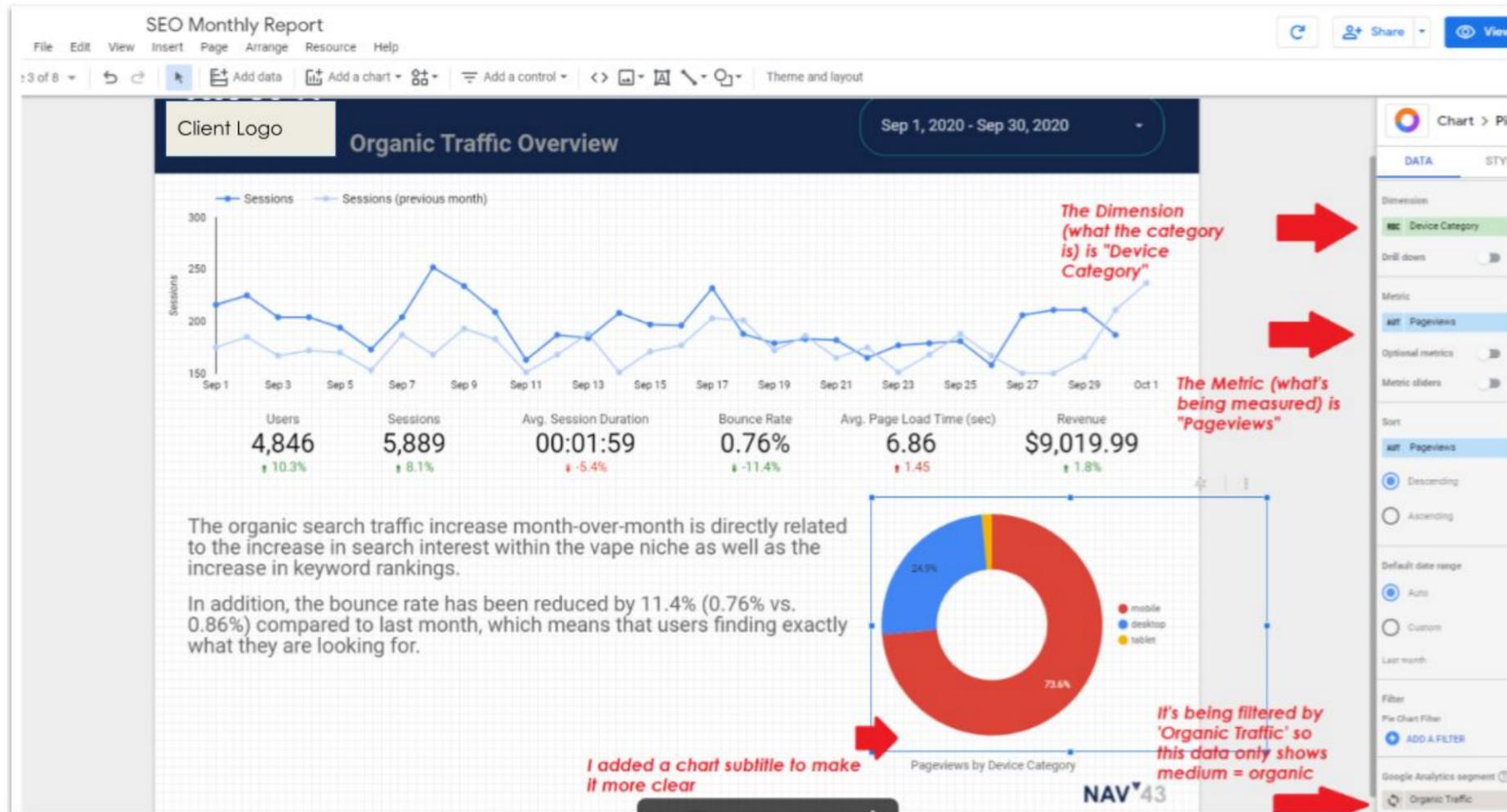
1. While holding down CTRL (Windows) or Command (Mac), click the charts that visualize the two or more data sources you wish to blend. It's easier if you move them to the same page temporarily
2. While still holding down CTRL/ Command, right click to bring up the command menu. The second last option should be 'Blend data' 
3. This will automatically create a new visualization that merges the two data sources. However, you'll need to inspect this new data source by selecting the new visualization and clicking the pencil icon beside the data source name
4. The 'Join Key' represents all the dimensions that are common between the two data sources and represent/ measure the same thing



5. You can then add in the specific dimensions and metrics you wish to visualize.
6. You can [read a more in-depth tutorial from the Google Blog](#)

## CREATING A REPORT

# Step 4: Verify What's Being Measured.



If you wish to verify what data is being visualized within any given widget, simply select it and take a look at the 'Data' tab.

You'll be able to see:

- The **data source** (what platform your data is pulling from)
- Default **data range** (if this differs from the data selector for the rest of the page/report)
- The **dimension** (what the category is)
- The **metric** (what's being measured)
- Its **filter** (what is included and what is excluded in the visualization)

Select the chart/widget and take a look at what's listed under the 'Data' tab

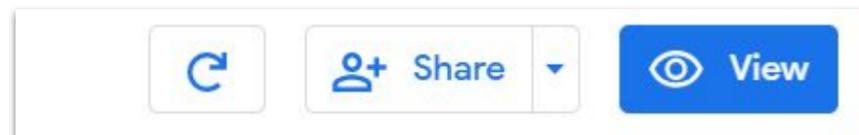
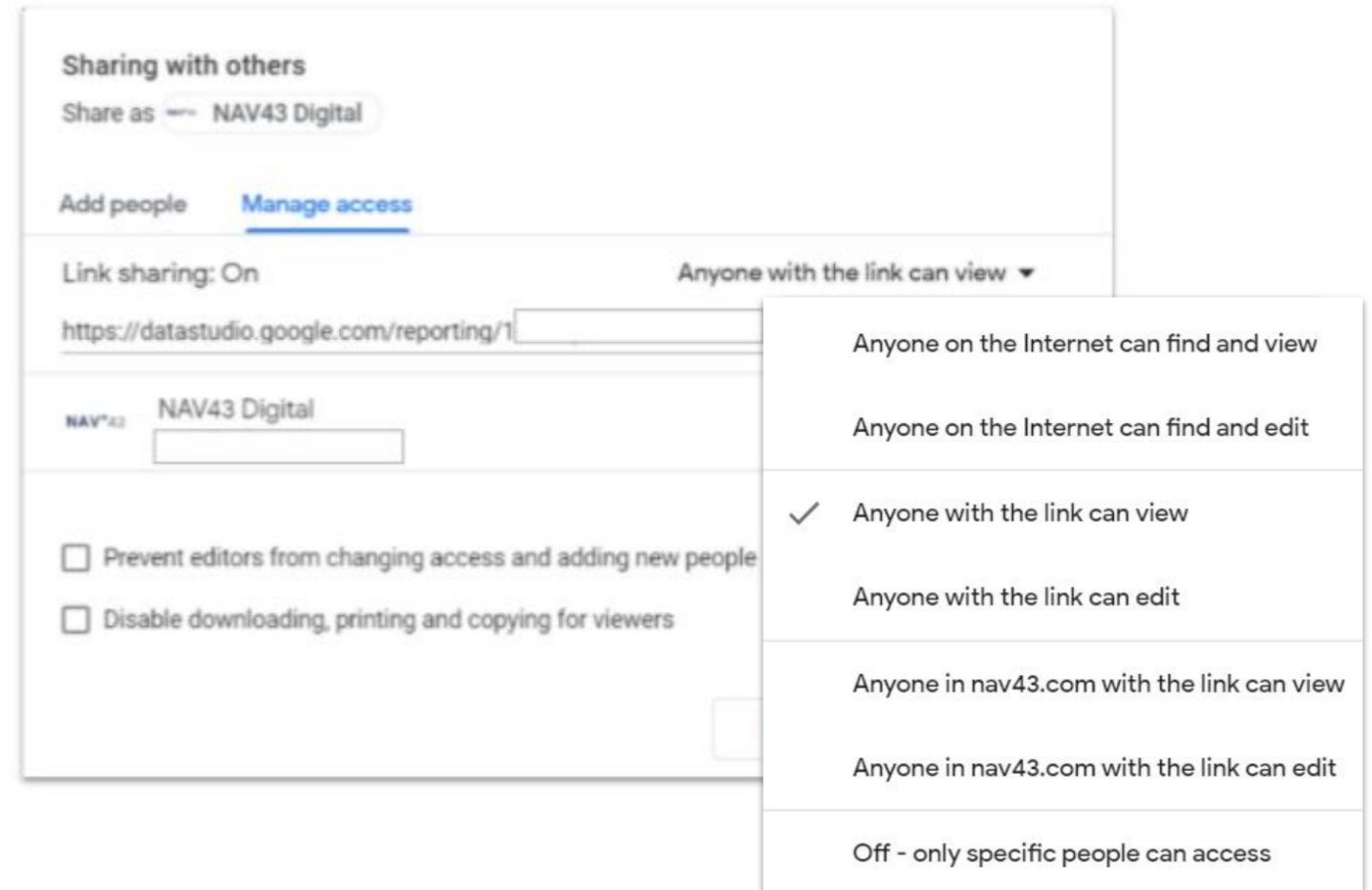
## CREATING A REPORT

# Step 5: View and Share Reports.

Lastly, **View** mode allows you to see your data visualizations in their full glory, including any of the interactive controls you've set such as data source validators and data range selectors. This view shows you the exact layout that will be seen when you share your report with others.

### How to share a report

1. In the upper right, click Share icon. 
2. Specify the people and/or groups with whom you want to share your report.
3. Use the advanced options to change how individual addresses can access the report.



# Resources.

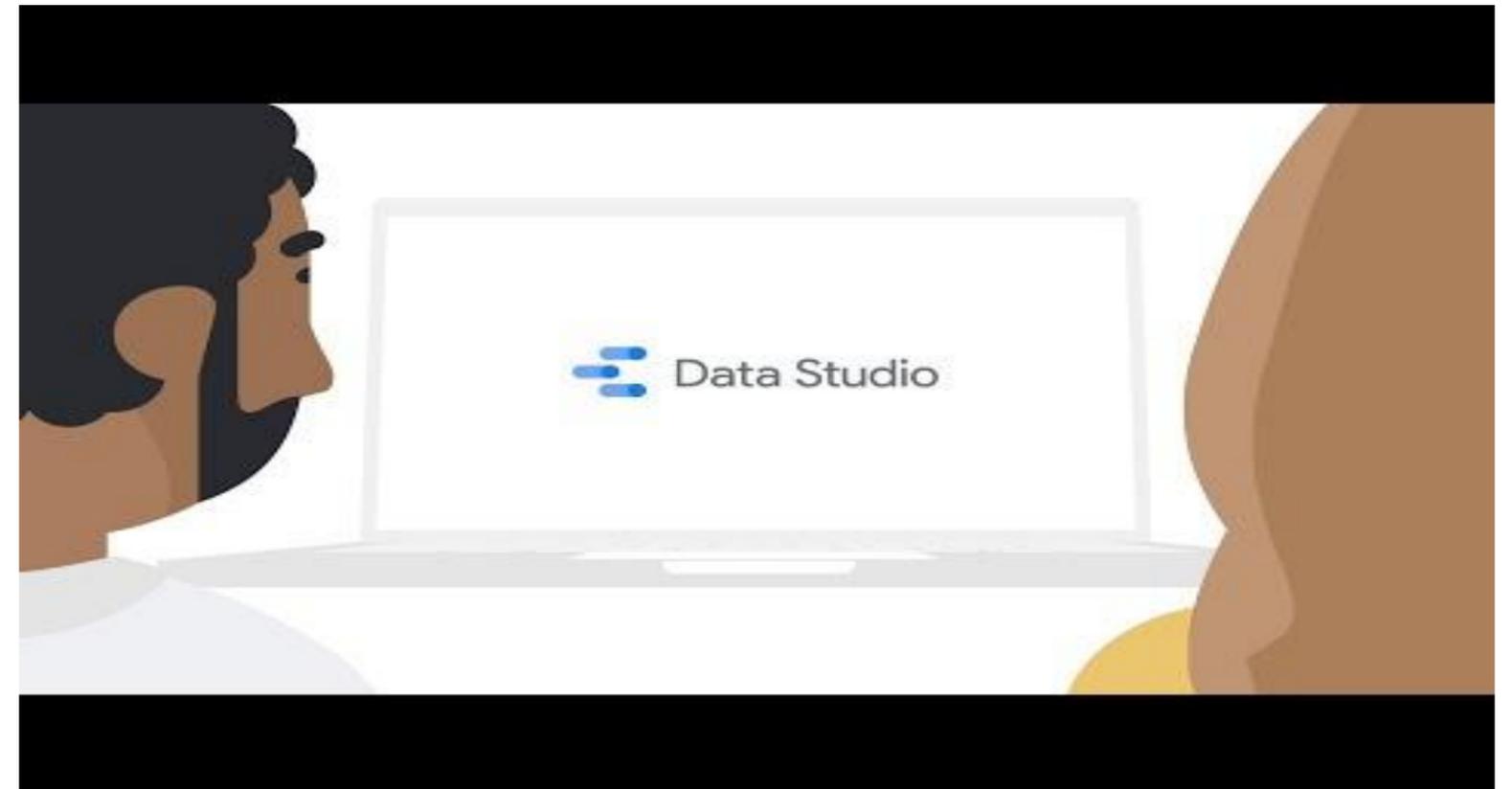
## RESOURCE

# Course: Introduction to Google Data Studio.

Learn better through video?

Luckily, Google has put together an video introductory course that teaches marketers, brand managers and business owners how to visualize and analyze data from their online platforms.

Whether you need to report on your marketing KPI for your clients or stakeholders, or you're a brand owner looking to gain more transparency into your marketing stack, this course is a wonderful place to start.



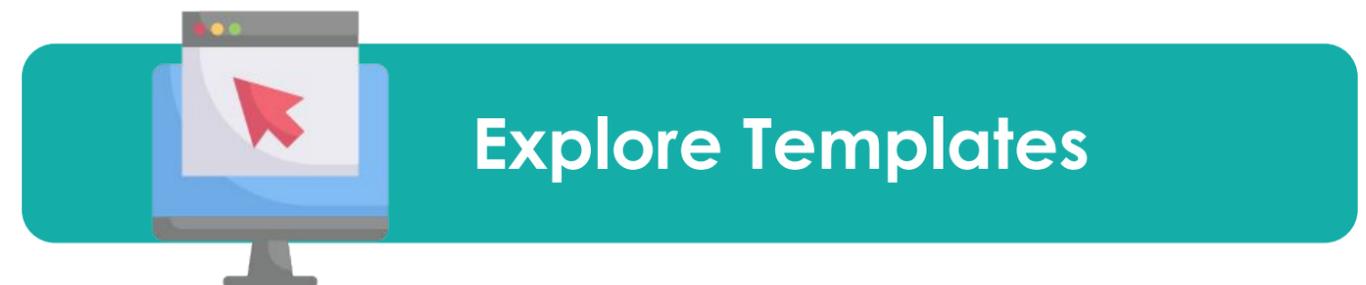
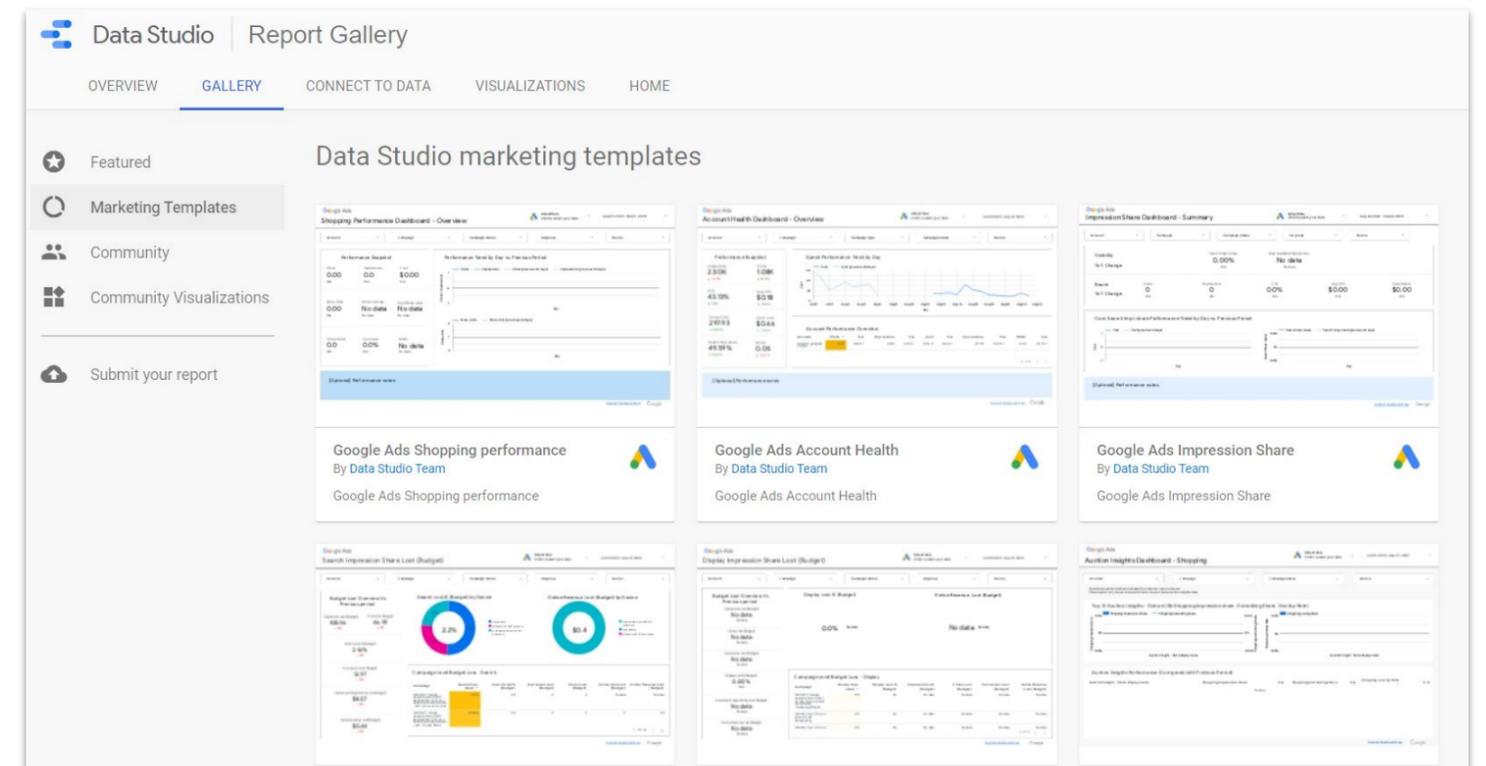
[Take the Course](#)

## RESOURCE

# Data Studio Report Gallery.

It has often been said that “Imitation is the sincerest form of flattery.” The Google Data Studio Report Gallery is an online, user-generated showcase of sample reports.

They’re free to access and are fully editable. If you need inspiration or simply want to report on the same KPI but with your data, be sure to check it out.



**Thank You.**

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