

Google Analytics



Project 6: Navigating, Reports, & Dashboards



Part One: Primary Views & Filters





1. Best Practice Check: Three Primary Views

By using the *Google Merchandise Store Demo Account* and checking the Top level aspects, some things become apparent:

1. The account is called "Demo Account".
 2. In the account, there is a Property called "Google Merchandise Store".
 3. In the Property, there are three views, "Master View", "Test View" and "Raw Data View".
- The Master View is going to be where the final implementations of the tests that we did in the Test View are going to be placed.
 - The Raw Data View is going to serve the purpose of backing up our data, in case anything goes wrong, such as in a filter, that could potentially cause data loss.

Analytics Accounts	Properties & Apps	Views
Demo Account 54516992	Google Merchandise Store UA-54516992-1	1 Master View 92320289 ✓
	Attribution Projects	2 Test View 92324711
	Google Merchandise Store: Attribution project 1839269076	3 Raw Data View 90822334
	Google Merchandise Store: Attribution project 1864999626	

2. Best Practice Check: Filtering Internal Traffic

There are three filters in the account, which are:

1. **Exclude Product** (not implemented in any view).
2. **Include Hostname** (includes hostname
“.googlemerchandise.com”), implemented in three views.
3. **Rename AdWords Campaigns** (Replaces Campaign Name
strings using the Regex “^(.*?)(~|-)”), a Replace String is not yet
provided, this filter was applied to the three views.

Filter Name	Filter Type	Views
Exclude Product	Exclude	0
Include Hostname	Include	3
Rename AdWords Campaigns	Search and Replace	3

Access to add a filter was not provided, but to do so we would Click on Filter and then Add filter.

As explained in the lessons, by making sure that the filter is set to exclude we would have to add a regular expression, such as “244\.90\.156\.(1-9|1[0-5]\$”, which filter out the rage from “244.90.156.1” until “244.90.156.15”.



Part Two: Data Exploration

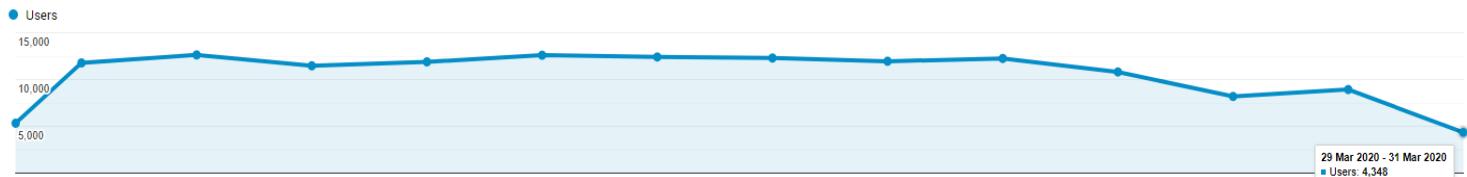


Standard Display - Audience

From the Audience Overview Report, by selecting a period between 1 Jan 2020 and 31 Mar 2020, we can see that the week with lowest users was the last one.

The complete week with least amount of users was from 15 Mar 2020 to 21 Mar 2020.

The biggest amount of users week is the 12 Jan 2020 to 18 Jan 2020.

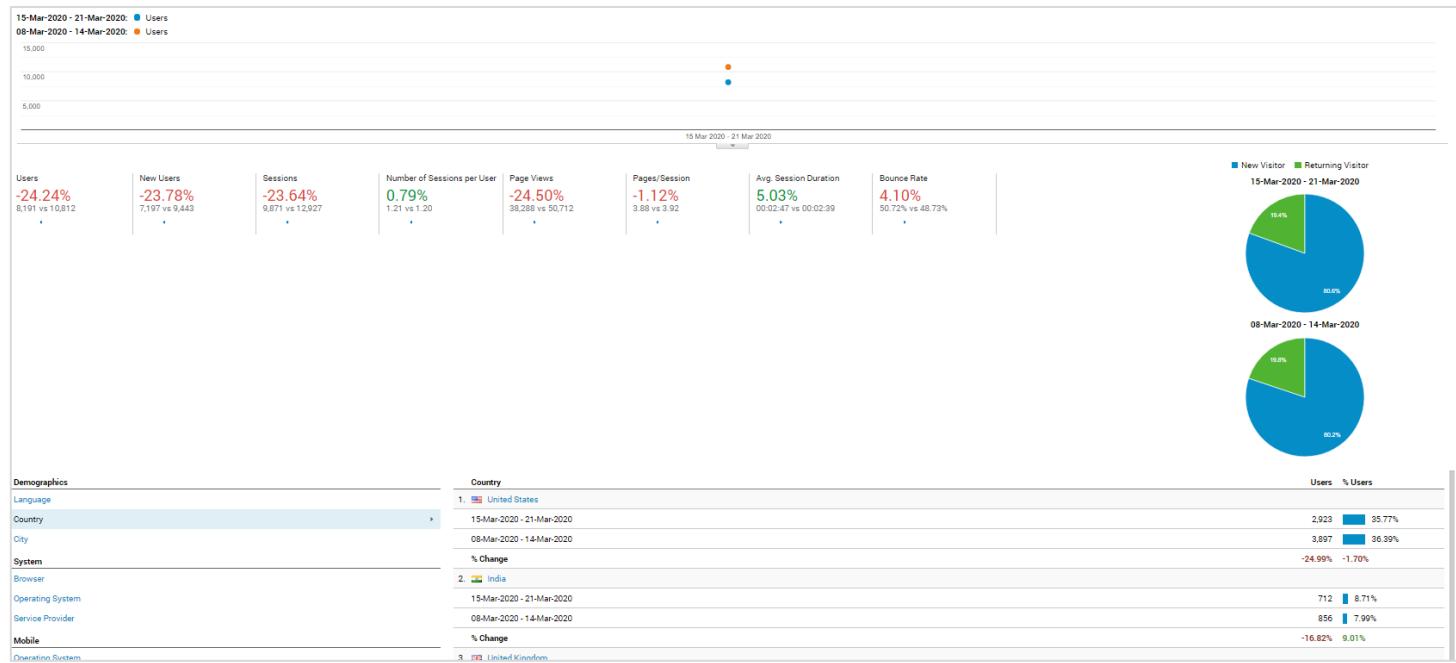


Standard Display - Audience

Do you have any ideas why certain trends are associated with these specific weeks?

Although the smallest week was the one from 29 Mar 2020 to 31 Mar 2020, this was due to it only showing two days.
The first week is also incomplete.

While I'm not certain of why this decrease happened, something that can be seen when comparing 15 Mar 2020 – 21 Mar 2020 to the previous, is that the U.S users dropped by 25% and although there were countries with bigger percentage drops or increases, the United States is the biggest contributor in terms of absolute values.





Standard Display: Acquisition

By creating a creating a regex filter to exclude “Direct|Other”, it can be clearly seen that the biggest Bounce Rate was on Display (76.54%) and the lowest was Paid Search (30.86%).

The highest E-commerce Conversion Rate was on Paid Search, while the lowest was on Display and Affiliates.

		Acquisition			Behaviour			Conversions		
		Users	New Users	Sessions	Bounce Rate	Pages/Session	Avg. Session Duration	E-commerce	Transactions	Revenue
	Default Channel Grouping	109,655 % of Total: 81.63% (154,229)	103,249 % of Total: 80.17% (128,794)	142,787 % of Total: 80.94% (176,409)	49.90% Avg for Viewer: 47.18% (5.76%)	4.02 Avg for Viewer: 4.17 (-3.73%)	00:02:38 Avg for View: 00:02:48 (-4.55%)	0.10% Avg for Viewer: 0.12% (-4.51%)	146 % of Total: 69.19% (211)	US\$8,152.49 % of Total: 67.85% (US\$12,014.79)
1.	Display	2,099 (1.83%)	1,871 (1.81%)	2,359 (1.65%)	76.64%	2.13	00:00:43	0.00%	0 (0.00%)	US\$0.00 (0.00%)
2.	Affiliates	4,463 (3.88%)	4,071 (3.94%)	5,190 (3.62%)	60.33%	2.38	00:02:12	0.00%	0 (0.00%)	US\$0.00 (0.00%)
3.	Social	5,091 (4.43%)	4,840 (4.69%)	5,459 (3.82%)	58.20%	3.42	00:01:25	0.05%	3 (2.05%)	US\$291.40 (3.87%)
4.	Organic Search	83,027 (73.19%)	76,644 (74.23%)	100,845 (70.93%)	53.43%	3.59	00:02:22	0.13%	133 (91.10%)	US\$7,329.59 (89.91%)
5.	Referral	18,041 (15.69%)	14,133 (13.69%)	23,885 (18.13%)	32.10%	6.06	00:04:03	<0.01%	1 (0.68%)	US\$41.80 (0.81%)
6.	Paid Search	2,283 (1.99%)	1,690 (1.64%)	3,049 (2.14%)	30.86%	6.03	00:03:40	0.30%	9 (5.16%)	US\$489.70 (5.01%)

Standard Display: Acquisition

Bounce Rate corresponds to a percentage of sessions in which there wasn't any interaction with any other page after the landing page.

Since the user doesn't click in any page, or leaves the page, it is considered a bounce.

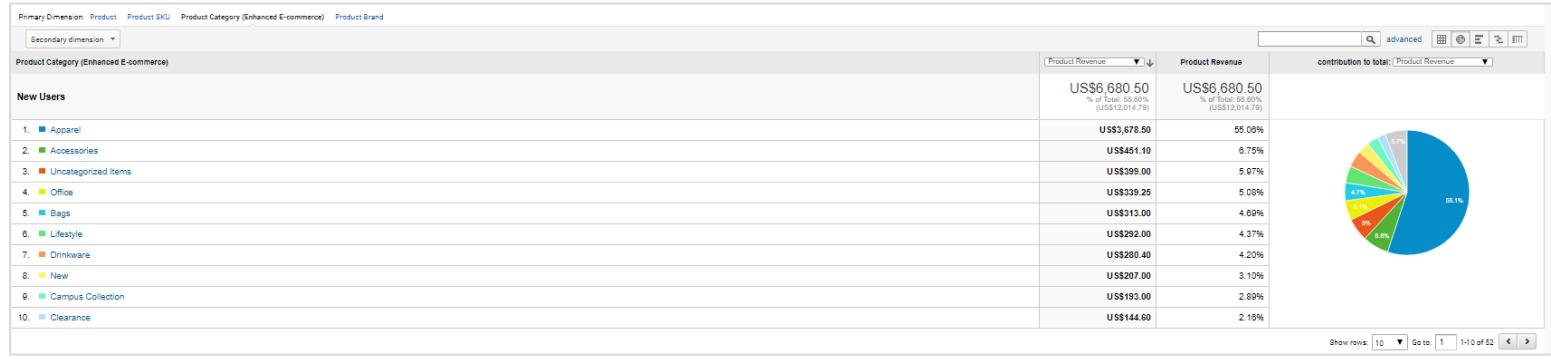
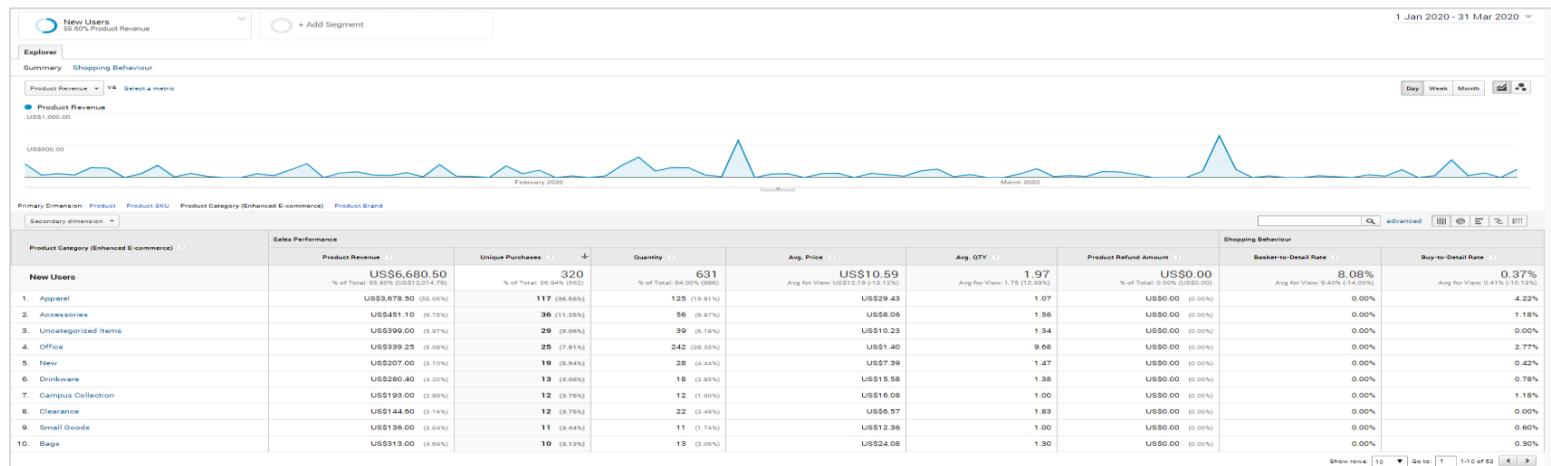
The E-commerce Conversion rate compares the Transactions with the Sessions, can be derived using the formula
"Sessions/Transactions"

Percentage Display: Conversion

To be able to answer this question, the segment was changed to the system segment “New Users”.

The product Category which contributed the most to the Unique Purchases was “Apparel”.

The product Category responsible for the largest percentage of revenue for New Users was also Apparel, with 55.1%.

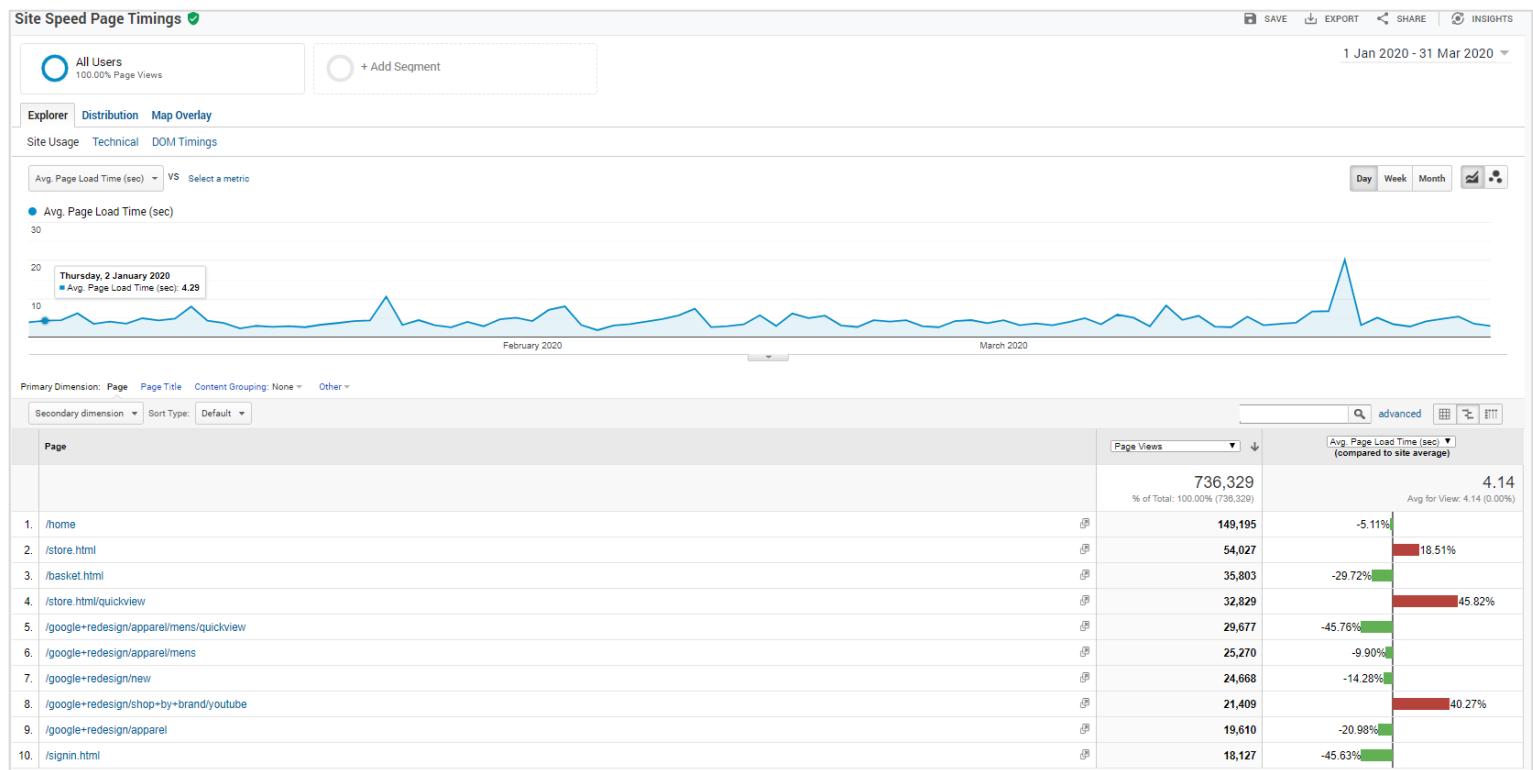


Comparison Display: Behavior

For the all users segment, there are three poorly performing pages in terms of Page Load Time, when compared to the total average load time.

The three pages are “/store.html”, “/store.html/quickview” and “/google+redesign/shop+by+brand/youtube”.

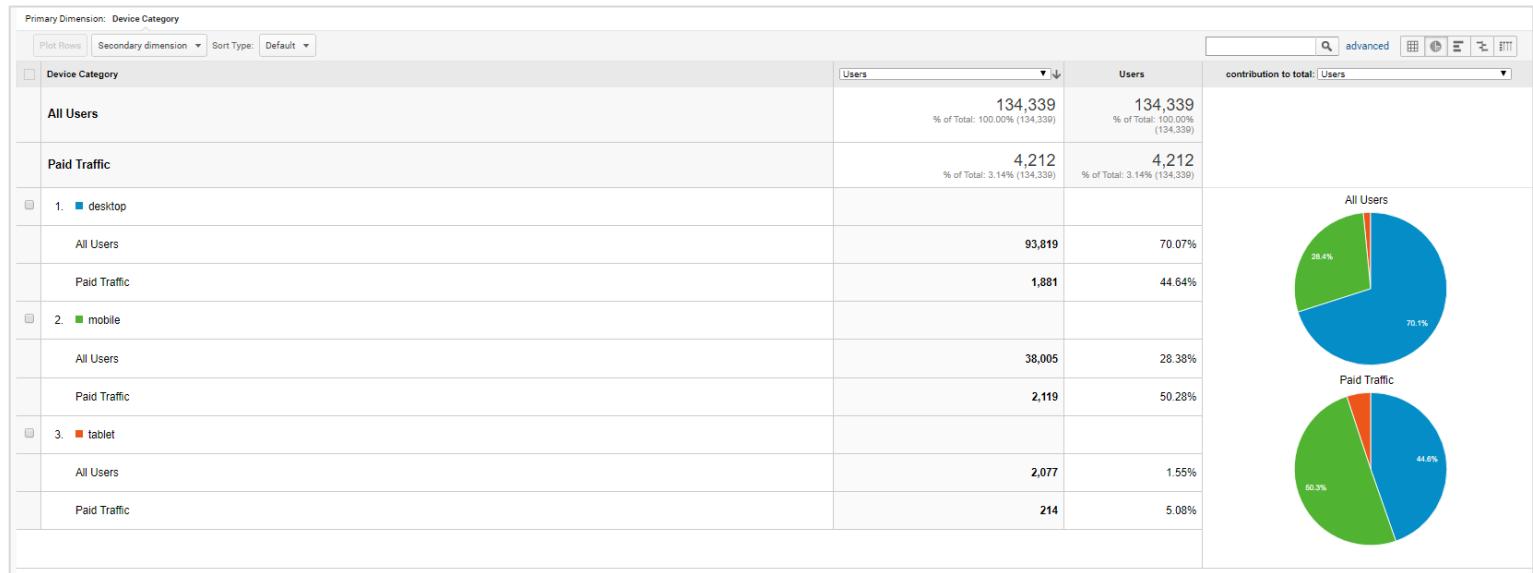
The latter two are more than 40% below average.



Percentage Display: Audience

For this comparison, a new segment was added for Paid Traffic, going into Audience → Mobile Overview.

In there, the breakdown by the device category and both segments is created automatically, which can be seen and understood at a glance by looking at the pie charts.



Part Three: Segmentation

Segmentation: Instructions

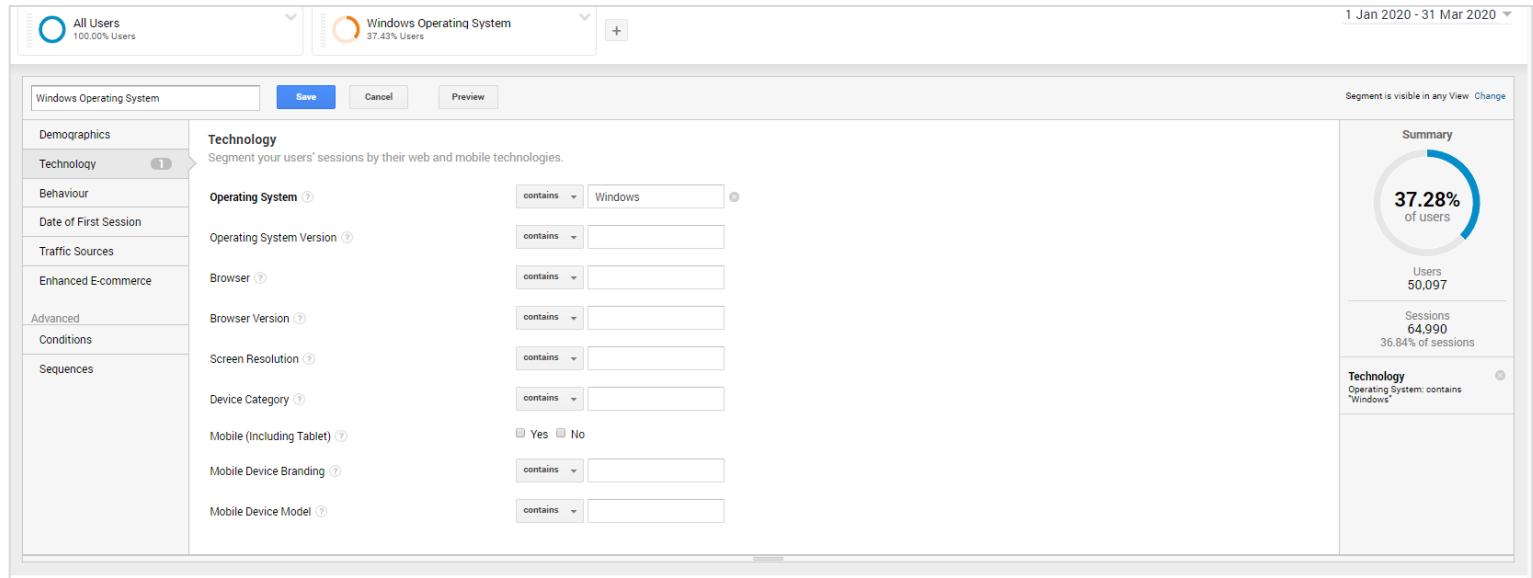
Segmentation helps provide clarity, insight, and confidence in data by making it more specific and actionable.

To demonstrate your knowledge:

- Identify and create three different audience segments and apply them to your data:
 - one based on audience characteristic (such as technology or demographics)
 - one based on geography
 - one based on user behaviors
- Change the scope for the behavior segment between *Sessions* and *Users* to see how this impacts metrics such as goal conversion rate.
- **Take screenshots showing each of your segments applied to the data and explain the segment and the results in the notes section. Place these items on the slides that follow.**

Remove this slide

Audience Segment: Characteristic



By selecting a segment of users that use the Windows Operating System, we can see that it pertains to 37.28% of users (50.097 users) and 36.84% of sessions (64.990 sessions).

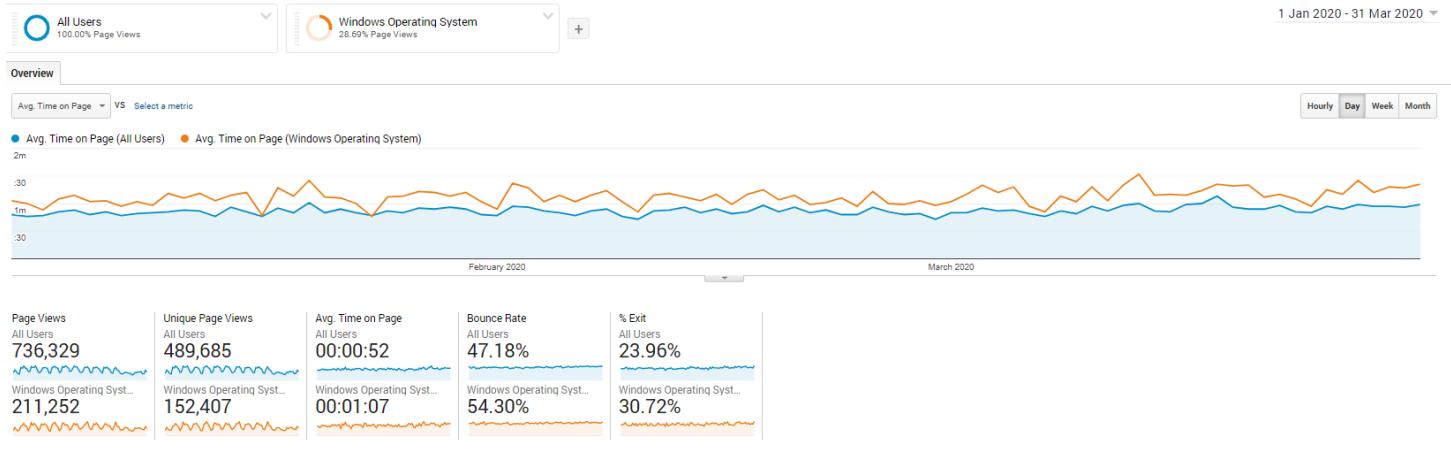
Using this segment, I can answer a specific questions such as:

How do my Windows users behave compared to all users?

How much off the ecommerce revenue comes from this segment?

How do these users compare to other operating systems?

Audience Segment: Characteristic



In the image above, we can see that Windows Operating System users, on average stay longer on a page when compared to the totality of users.

Other kinds of analysis using averages and percentages could also be performed.

Audience Segment: Geography

The screenshot shows the e-nor audience segmentation interface. The main title is "Users in Europe". On the left, there's a sidebar with various categories: Demographics (selected), Technology, Behaviour, Date of First Session, Traffic Sources, Enhanced E-commerce, Advanced, Conditions, and Sequences. The main panel is titled "Demographics" with the sub-instruction "Segment your users by demographic information." It contains several filter fields: Age (radio buttons for 18-24, 25-34, 35-44, 45-54, 55-64, 65+), Gender (radio buttons for Female, Male, Unknown), Language (dropdown with "contains" operator and input field), Affinity Category (dropdown with "contains" operator and input field), In-Market Segment (dropdown with "contains" operator and input field), Other Category (dropdown with "contains" operator and input field), and Location (dropdown for Continent with "contains" operator and input field set to "Europe"). To the right, there's a "Summary" section with a donut chart showing "26.27% of users" (35,300 users, 25.22% of sessions, 44,492 sessions). Below the summary, there's a "Demographics" section with a note: "Continent: contains 'Europe'".

By selecting a segment of users that are located in Europe, we can see that it pertains to 26.27% of users (35.300 users) and 25.22% of sessions (44.492 sessions).

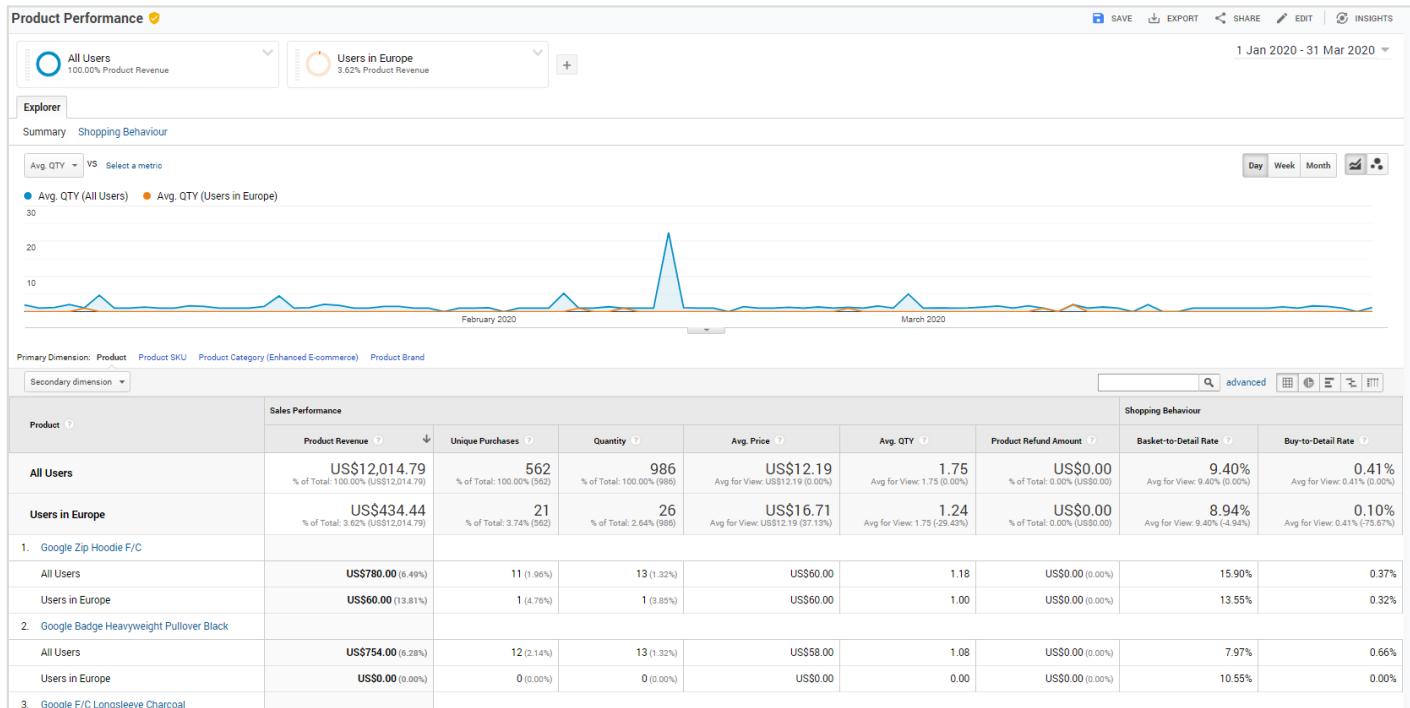
I can use this segment to answer questions such as:

How do my European users behave, related to other continents?

Are there any differences between these?

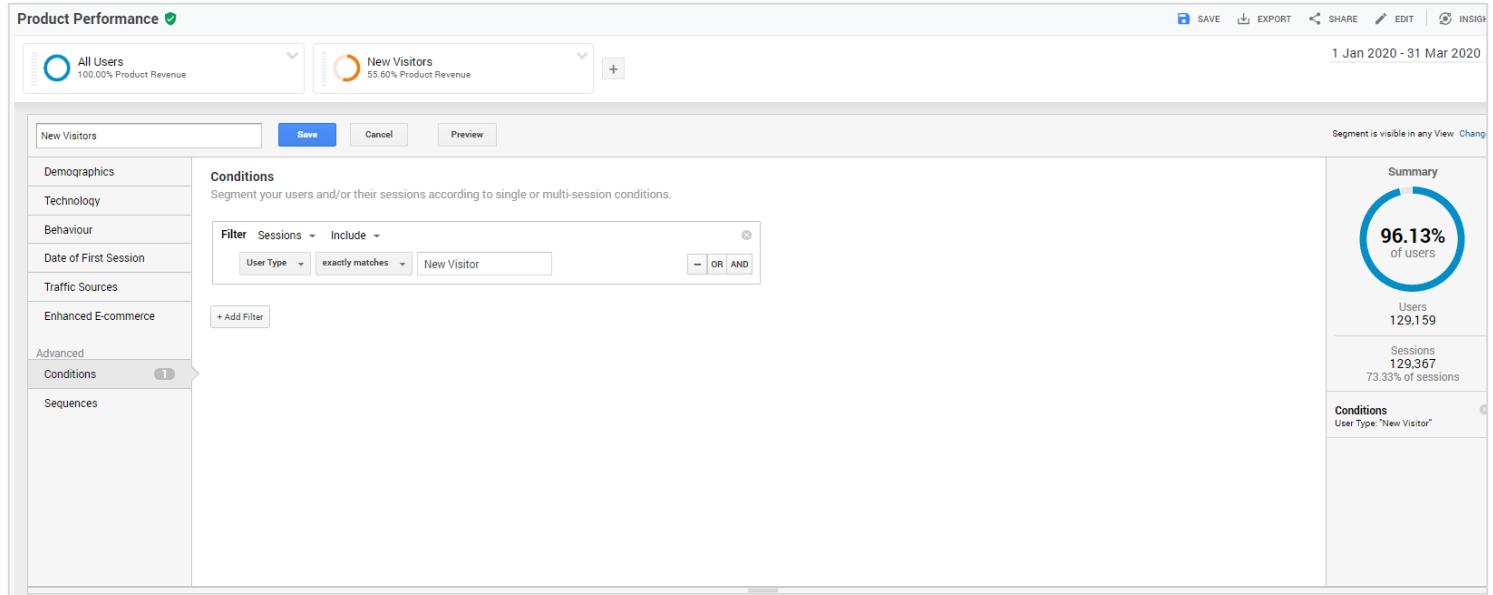


Audience Segment: Geography



By selecting a segment of users that are located in Europe, find that based on the average quantity bought for the dates between 1 Jan 2020 and 31 Mar 2020, European users purchase in smaller quantities.

Audience Segment: User Behavior



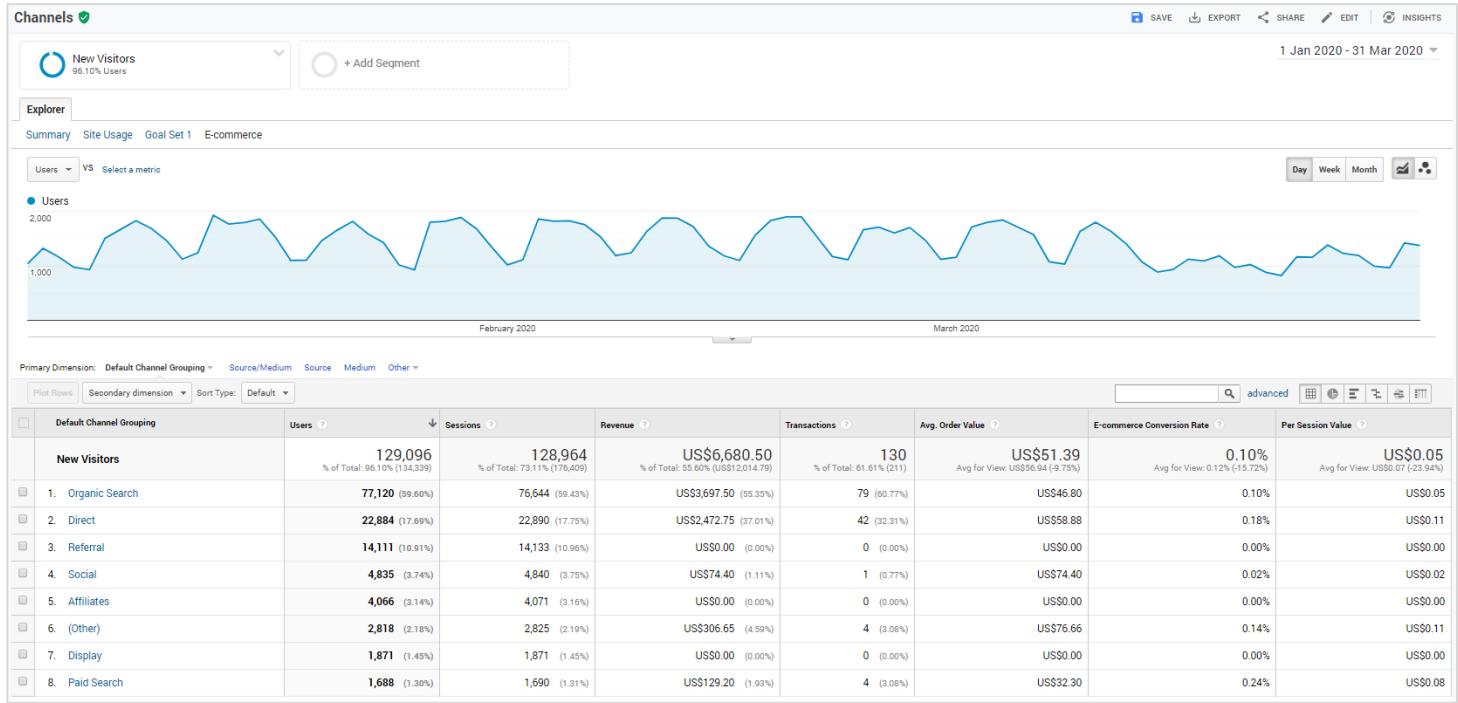
By selecting a segment of users that are New Visitors, we can see that it pertains to 96.13% of users (129.159 users) and 73.33% of sessions (129.367 sessions).

I can user this segment to answer the question:

- What was the contribution of the segment to the Revenue in the time period for the different Channels?



Audience Segment: User Behavior



From the image above, we can see that the revenue for the time period in analysis was \$6,680.50, which answers our question.

Some deeper analysis could also be conducted, to compare between New Visitor Segments and all users.



Part Two: Connecting a Data Source and Creating a Custom Dashboard



1. Merchandise Store Draft Dashboard

The screenshot shows the Google Data Studio interface. At the top left is the 'Create' button, which is highlighted with a red box. Below it is a navigation bar with tabs: 'Recent' (which is selected), 'Reports' (highlighted in blue), 'Data sources', and 'Explorer'. To the right of the navigation bar is a search bar labeled 'Search Data Studio'. On the left side, there's a sidebar with sections for 'Recent' (showing a clock icon and 'Recent'), 'Shared with me' (showing a person icon), 'Owned by me' (showing a person icon), and 'Bin' (showing a trash bin icon). The main area is titled 'Start with a Template' and displays several pre-made report cards. One card is selected, showing a 'Blank Report' with the Data Studio logo. Other cards include 'Tutorial Report' (Data Studio), 'Acme Marketing' (Google Analytics), 'Search Console Report' (Search Console), 'Google Ads Overview' (Google Ads), and 'YouTube Channel Report' (YouTube Analytics). At the bottom of the main area, there are filters for 'Name', 'Owned by anyone', and 'Last opened by me'. A status bar at the bottom right shows 'Gustavo Pacheco' and '19:57'.

The screenshot shows the 'Merchandise Store Draft Dashboard' report in Google Data Studio. The title bar includes the report name and standard menu options: File, Editing, View, Insert, Page, Arrange, Resource, Help. Below the title bar is a toolbar with various icons for adding pages, charts, data, and layout elements. The main content area is currently empty, indicating the dashboard is still being built.

First, I went ahead and created a report by clicking on Create and then Report.

Then, I changed its name to Merchandise Store Draft Dashboard in the title.



1. Merchandise Store Draft Dashboard

The screenshot shows the Google Data Studio interface. At the top left is the 'Data Studio' logo. Below it is a search bar with 'Search Data Studio'. A red box highlights the 'Create' button on the left side of the navigation bar, which includes tabs for 'Recent', 'Reports', 'Data sources', and 'Explorer'. The main area is titled 'Start with a Template' and shows several pre-made report cards: 'Blank Report' (Data Studio), 'Tutorial Report' (Data Studio), 'Acme Marketing' (Google Analytics), 'Search Console Report' (Search Console), 'Google Ads Overview' (Google Ads), and 'YouTube Channel Report' (YouTube Analytics). On the right, there's a 'Template Gallery' dropdown. Below the template cards, there's a section for 'Untitled Report' with fields for 'Name', 'Owned by anyone', 'Last opened by me', and a timestamp '19:57'.

The screenshot shows the 'Merchandise Store Draft Dashboard' resource page. The title bar includes 'File', 'Editing', 'View', 'Insert', 'Page', 'Arrange', 'Resource', and 'Help'. Below the title, there's a link to 'Add data to report' and a 'Data credentials' section with a 'View' button. The main content is about the 'Google Analytics' connector, stating it lets you create a data source that connects to a single Google Analytics reporting view. It also mentions that web properties are not yet supported. There are 'LEARN MORE' and 'REPORT AN ISSUE' buttons. The table below lists data sources: 'Demo Account' under 'Property' 'Google Merchandise Store' has '1 Master View', '2 Test View', and '3 Raw Data View'.

First, I went ahead and created a report by clicking on Create and then Report.

Then, I changed its name to Merchandise Store Draft Dashboard in the title.

After doing so, I went over to Resource → Manage Added Data Sources → Add a Data Source → Selected Google Analytics → Selected the Demo Account, Google Merchandise Store → Master View.

2. Merchandise Store Draft Dashboard: Time Series chart



I created a Time Series chart, to analyze the trends of Sessions, Unique Pageviews and Users for the selected time period from 1 August 2018 until 5 September 2018.

Using this chart, it's possible to draw some insights, such as the ups and downs, based on the end of the week and recovering at the start of the next week.

Sessions and users are very close together and display the same pattern throughout.



3. Merchandise Store Draft Dashboard: Pie chart, 7 slices

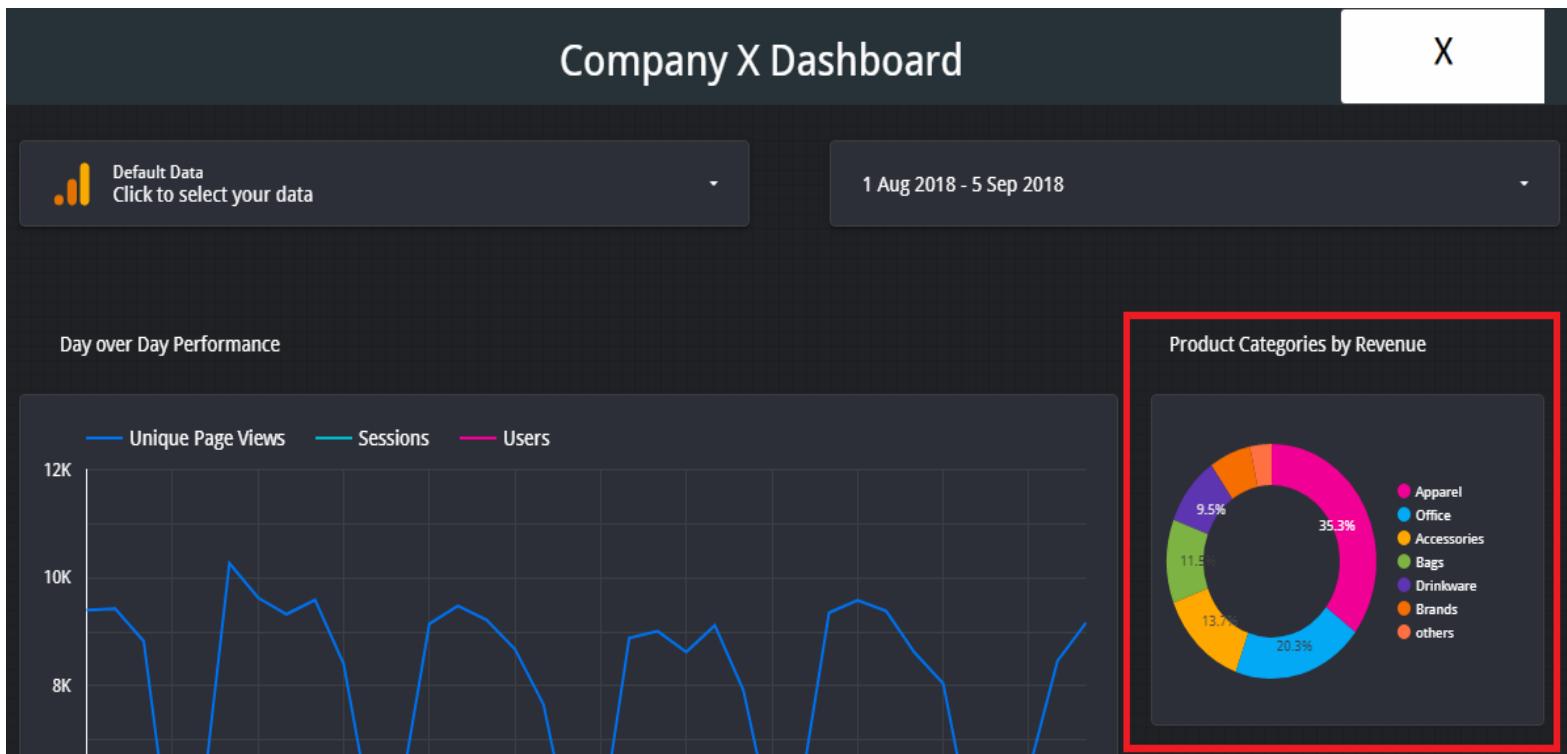


Chart > Pie

DATA **STYLE**

Data source: 1 Master View

Dimension: Product Categories

Drill down:

Metric: AUT Revenue

Optional metrics:

Sort: AUT Revenue

Descending:

Ascending:

Default date range: Auto

Custom:

1 Aug 2018 - 5 Sep 2018

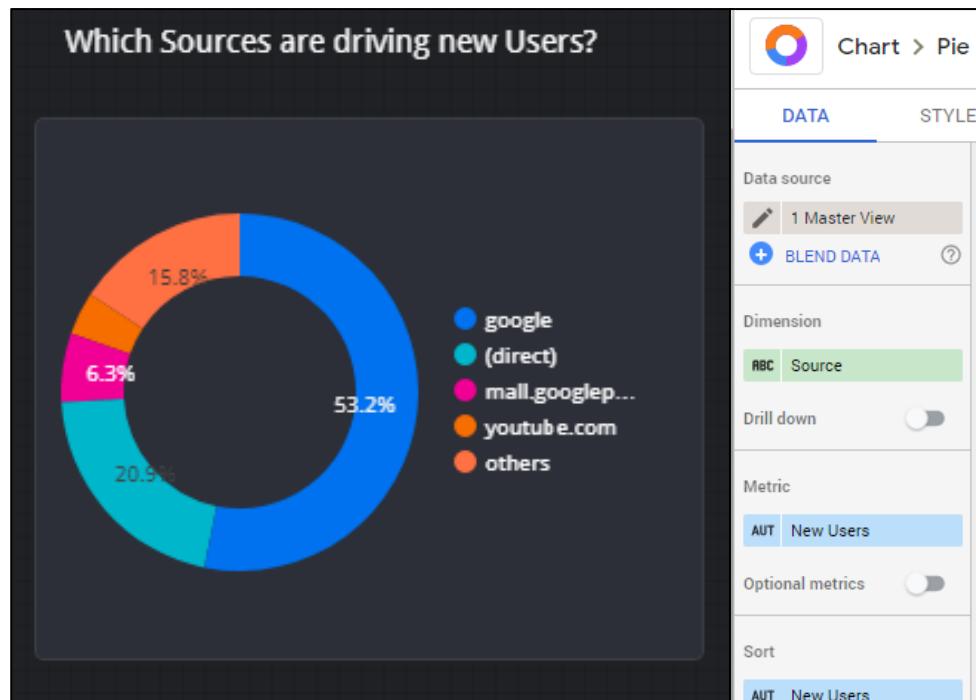
In the image above, it's possible to see the requested pie chart, sliced in 7 parts by Product Categories.

I used the same date range filter with the same date as before.

I've also added a header to the report and created an example logo for the company X.

Apparel, Office and Accessories were the top 3 contributors to Revenue in this time period.

4. Merchandise Store Draft Dashboard: Pie chart, 5 slices

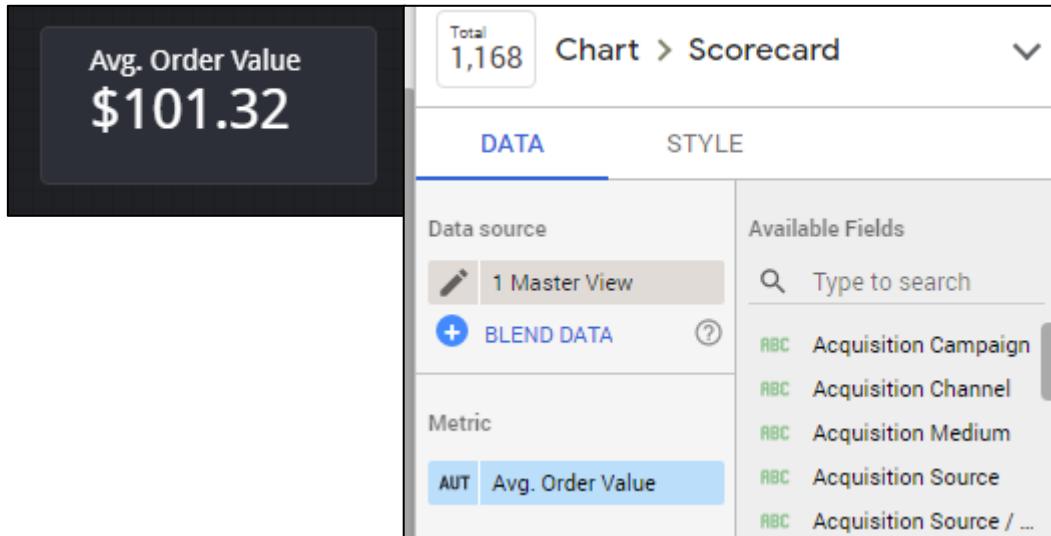


In the image above, it's possible to see the requested pie chart, sliced in 5 parts by Source.

Source was added as a Dimension and New Users as a metric.

The 5 sources are google, (direct), mall.Googleplex.com, youtube.com and others.

5. Merchandise Store Draft Dashboard: Scorecard

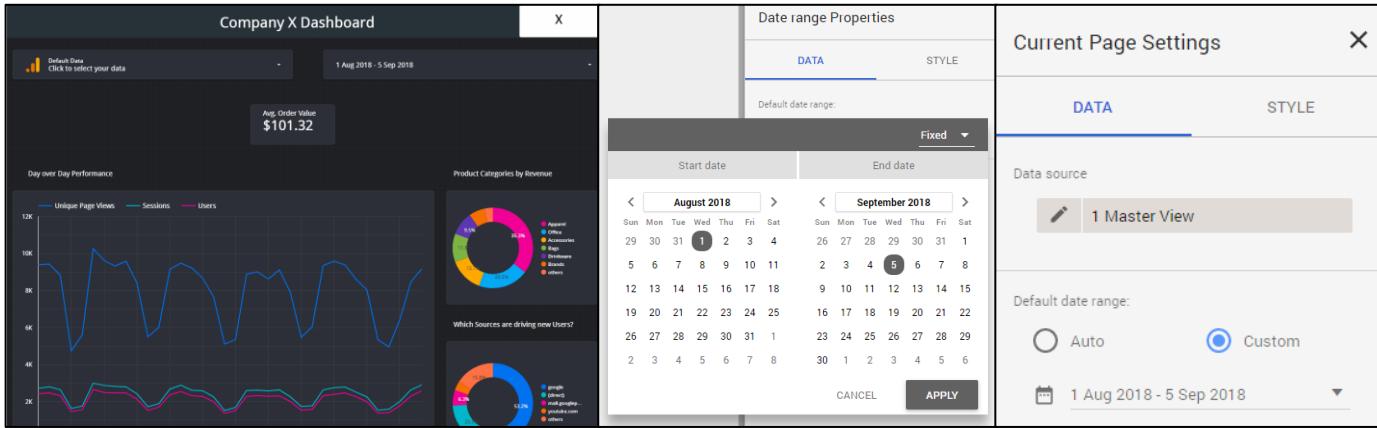


A scorecard with Average Order Value was also added on the same time frame from 1 August 2018 until 5 September 2018.

The Datasource is the master view, as all others and the average order value is 101.31\$.

6. Merchandise Store Draft

Dashboard: Date Range Control



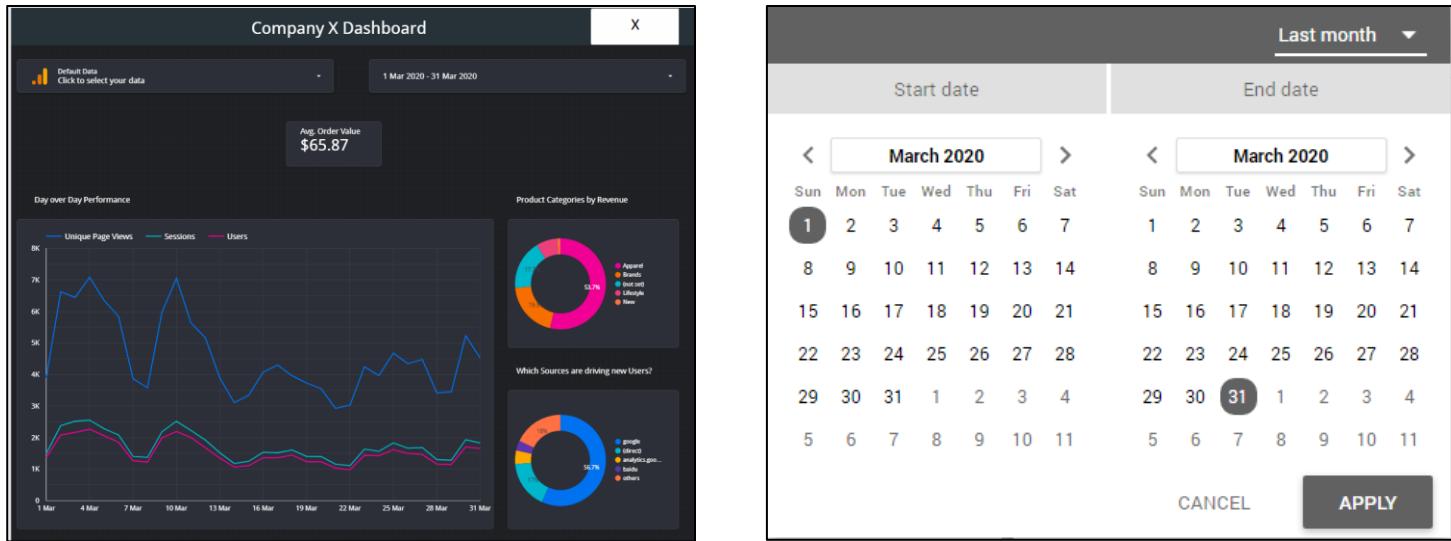
The screenshot shows a dashboard interface with three main sections:

- Company X Dashboard:** This panel contains various charts and metrics. It includes a line chart for "Day over Day Performance" showing Unique Page Views, Sessions, and Users; a donut chart for "Product Categories by Revenue"; and another donut chart for "Which Sources are driving new users?". A summary box at the top right displays "Avg. Order Value \$101.32".
- Date range Properties:** This panel is titled "Date range Properties" and has tabs for "DATA" and "STYLE". It shows a "Default date range" set to "Fixed" and displays two calendar grids for "Start date" (August 2018) and "End date" (September 2018). The "Start date" grid highlights August 1st, and the "End date" grid highlights September 5th. Buttons for "CANCEL" and "APPLY" are at the bottom.
- Current Page Settings:** This panel is titled "Current Page Settings" and has tabs for "DATA" and "STYLE". It shows a "Data source" section with a button for "1 Master View". Below it is a "Default date range" section with radio buttons for "Auto" and "Custom", and a dropdown menu currently showing "1 Aug 2018 - 5 Sep 2018".

The page has a Date Range Control, which is applied to all the charts in the page, which is set to the time frame from 1 August 2018 until 5 September 2018.

On the page settings, we can see that the data source is connected to the 1. Master View, with the Default date range as custom.

7. Merchandise Store Draft Dashboard: Date Range Control – Usage Demonstration



In this demonstration, I've changed the date range control to Last month, which updated it automatically to display from 1 March 2020 to 31 March 2020.

With this change, we can see that all charts updated accordingly.

The new Average Order Value is \$65.87, Apparel is the first Product Category, while google is still the source driving most users.

We can see large fluctuations in Unique page views from the first of March until the third of March, then it becomes a little more constant.

Sessions and User trends remain closely tied together, as expected.

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Marketing Analytics Nanodegree Program
