## Tutorial Pack 5
## (90 minutes)
(To be completed during LW5 tutorial)

| LEARNING OBJECTIVES |
|---|
| • **To understand how Google Analytics (UA Universal Analytics Properties) can be used to gather web performance data, monitor goals, and send performance related reports.** |

| LEARNING OUTCOMES |
|---|
| • **By the end of this tutorial students will have;**<br>    o **Logged into Google Analytics**<br>    o **Built up an understanding of the different GA reporting sections available.**<br>    o **Learned how to view and compose different reports based on metrics of interest.**<br>    o **Learned how to export GA reports to different file formats.**<br>    o **Learned how to perform user segmentation and report filtering.**<br>    o **Setup a custom GA dashboard and added a single widget.**<br>    o **Created a funnel diagram.**<br>    o **Configured custom GA alerts** |

| RESOUCRES AND TOOLS REQUIRED |
|---|
| • **Internet Browser**<br>    o **To test your developed web site on Google Sites**<br>    o **To login to Google Analytics**<br>• **LW4 extension tutorial pack (In places you can use the Google Sites website you developed as part of LW4 extensions to create your analytics reports. Otherwise, it is fine to practice using the demo GA store)** |

==IMPORTANT==:

This pack is designed for you to go at your own speed. At the end of each section there is a series of practice questions and exercises – you should attempt to answer **all questions**.

Any questions you do not complete today should be completed before your next tutorial.

## 1) Google Analytics

Google Analytics is a web-based tool for analysing web traffic data. Whilst, as we have seen in previous lectures it is not the only tool available, it is among one of the most popular tools by market share and usage across some of the busiest sites on the internet. Indeed, no MSc module in Web Analytics would be complete without some coverage of it. Recall that Google Analytics uses page tagging as its core data collection technique and as such requires that users install the necessary page tagging data on each page of their website. Furthermore, each website that is to be monitored by Google Analytics requires a corresponding Google Analytics account that must be linked.

The purpose of this tutorial is to introduce Google Analytics and provide an overview of some of its key reporting features. We will also cover details of how it can be configured to provide real-time alerts and monitor site specific goals. **To be able to complete this tutorial you will need to have a Google Analytics account.**

To begin, go to https://www.google.com/analytics/. Click on the 'Sign In to Analytics" button. (PS: If you haven't registered for a Google Analytics account, click on 'Start for Free' and register). You are now ready to begin.

### 1.1.Home View

In principle, Google Analytics allows you to associate more than one website with your account. We are going to be working with the data from the Google Merchandise Store – Universal Analytics property: Google Merchandise store (web data). Click on the link below for overview of the data and to request access:

https://support.google.com/analytics/answer/6367342/#access/.

- • Google Analytics 4 property: Google Merchandise Store (web data) ⊡
- • Google Analytics 4 property: Flood-It! (app and web data) ⊡
- • Universal Analytics property: Google Merchandise Store (web data) ⊡

Once logged in you should see something like the following.
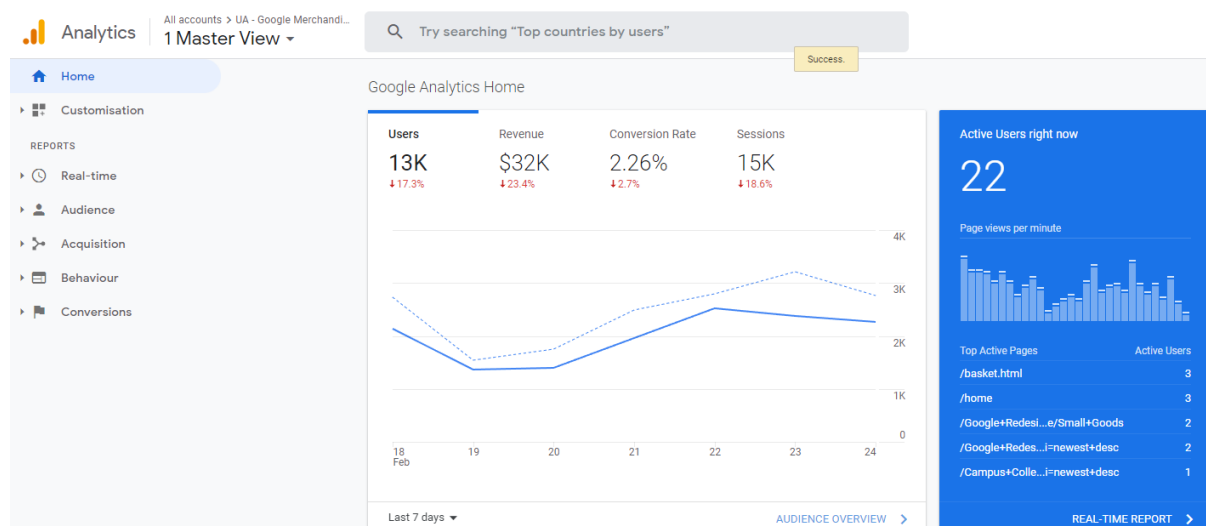
On the left-hand side you should see the main menu. This is where you can access different types of reports, customise which reports are shown and perform some basic site administration. As you can see the menu consists of five different categories of reports, which loosely fall into the three web metric categories which we have already seen. Namely, conversion metrics, acquisition metrics and engagement metrics. In this case, Google Analytics refers to engagement metrics as behavioural metrics but they are essentially one and the same thing.
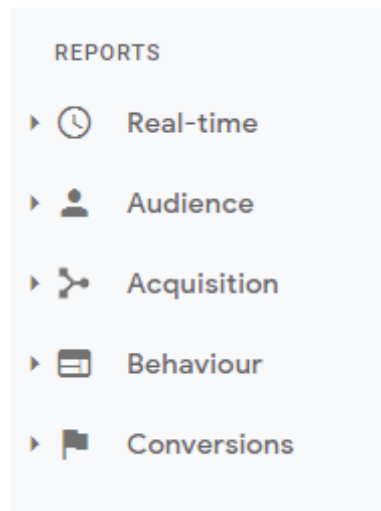


The centre section of the screen is where the results of reports, once opened, will appear. Each report follows a similar format and can be customised according to four different options, shown here circles in black, orange, red and green.

(1) allows you to select the segment of users for which this report will focus on, for example instead of viewing metrics for all users I can view them for just those visitors who access the site using a mobile device. (2) refers to the dimension of interest, otherwise known as the metric. In addition to being able to select the metric of interest we can also use this menu to add secondary dimensions, for example to show the number of pages viewed against the average time spent on the site. This can be useful when we want to drill down certain metrics. (3) is where we specify the date range to produce the metrics for, this can also be used to select dates in the past to compare recent with historic performance. Finally, (4) allows us to select the level of aggregation in the date range. This can be useful to compare performance at different times of the day, month of the year etc.
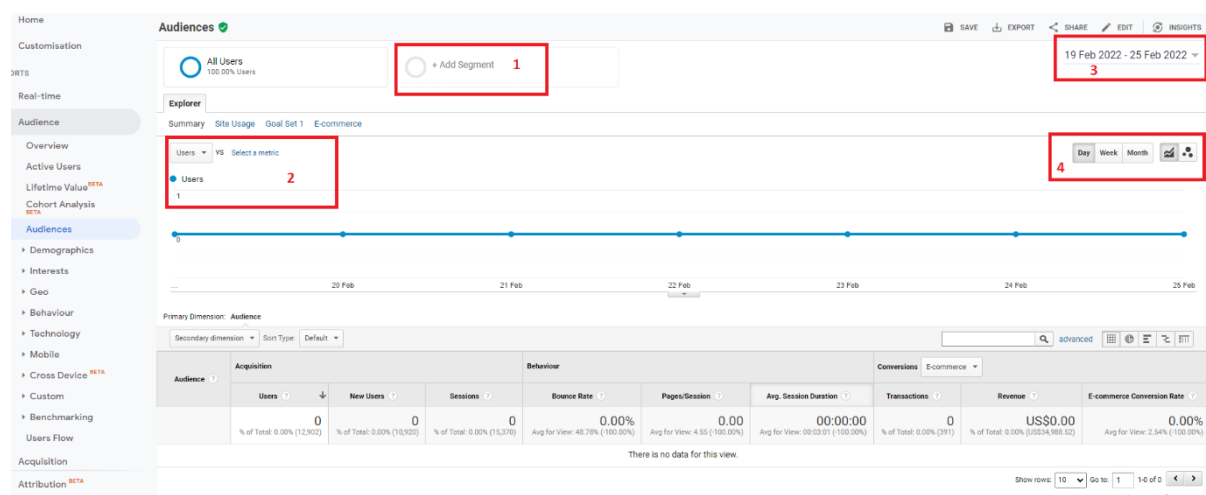
## 1.2. Real-Time View

Now that we have seen the general structure of Google Analytics and available sections, we will look more closely at the reports available starting with the real-time view. In contrast to all other reports which process historic data, the real-time view allows you to monitor activity on a website as soon as it happens. In fact, each hit to a website should appear in the real-time section only a few seconds after it occurs. For example, you can see how many people are currently on the Google Merchandise store and which pages or pieces of content they are interacting with.
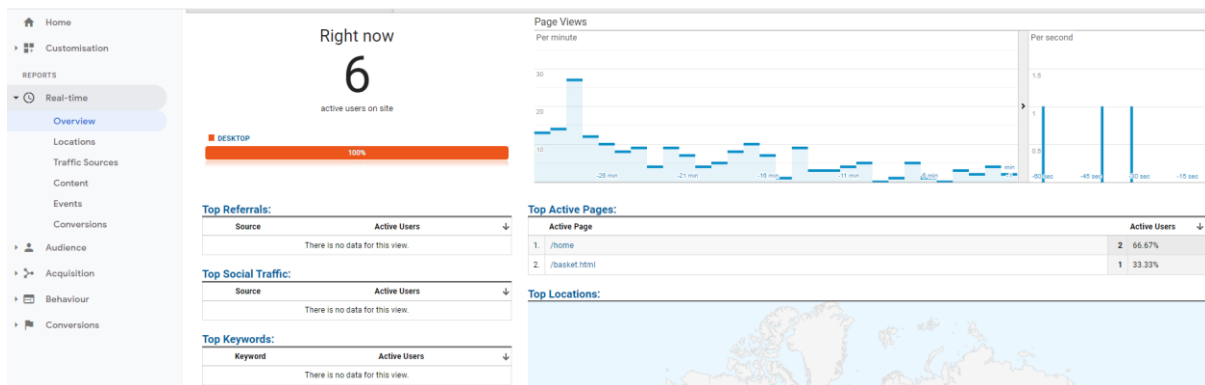


Upon opening the real-time section, you should be able to view the sub reports that are available, including an overview report which details how many visitors are currently on the site. The screenshot below shows an example of what this report can look like for a relatively busy website, in this case the University of Westminster website. At the time the screenshot was taken there were around 278 users on the site, 29% of which were viewing the homepage.
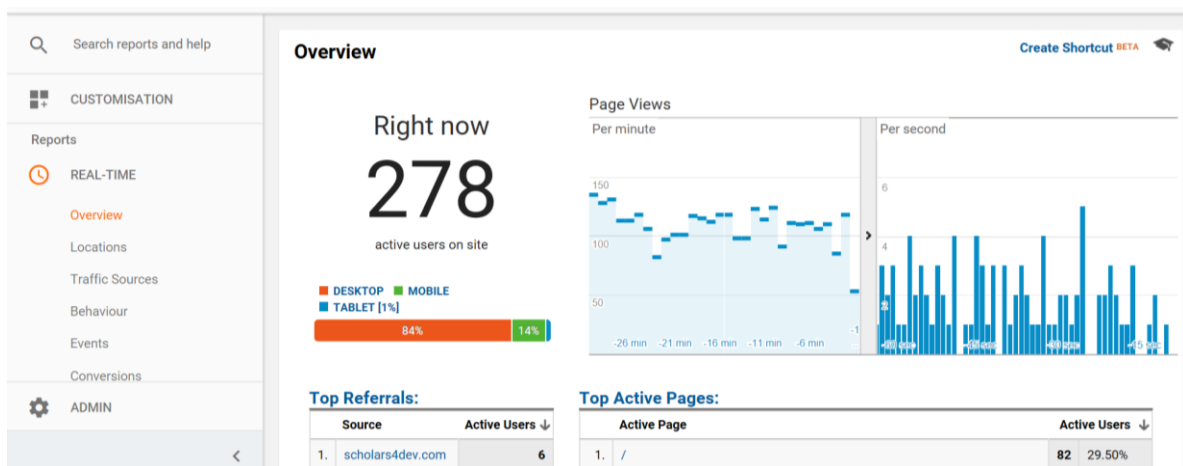
Open the locations report to view the real-time locations of users to the Google Merchandise store. Upon opening you should see a map of the globe. As before open an alternative browser and browse to your Google Site. You should see that 6 users are based in the US and 1 user is based in Brazil.
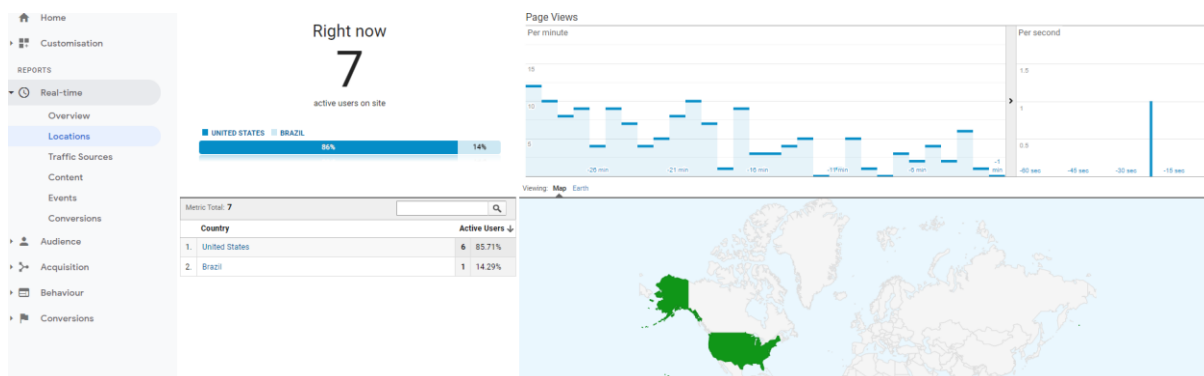


Below you can see an example report from the University of Westminster site. In this case most of the activity is from UK users.
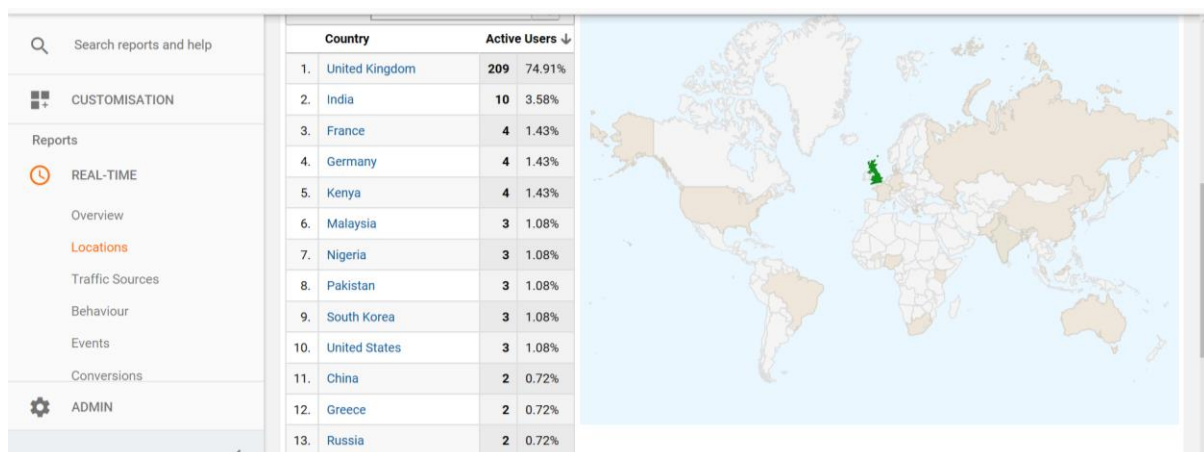


The traffic sources report shows information about referrers, i.e. the sites that users access immediately before browsing your site. Note that the number of users has doubled from 7 to 14. All the visitors typed the URL directly into the browser, indicated by the "Source" value being "(direct)".
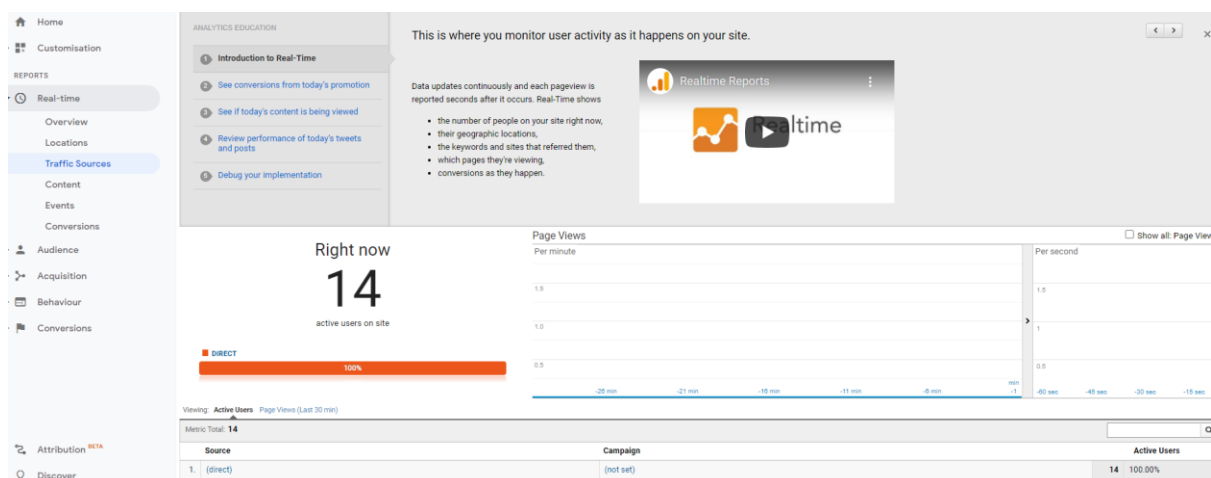
For the University of Westminster site, a lot of live traffic is people who enter the URL directly into the browser or visit from a bookmark. Following this source is organic search results and visits from users originating from Facebook.
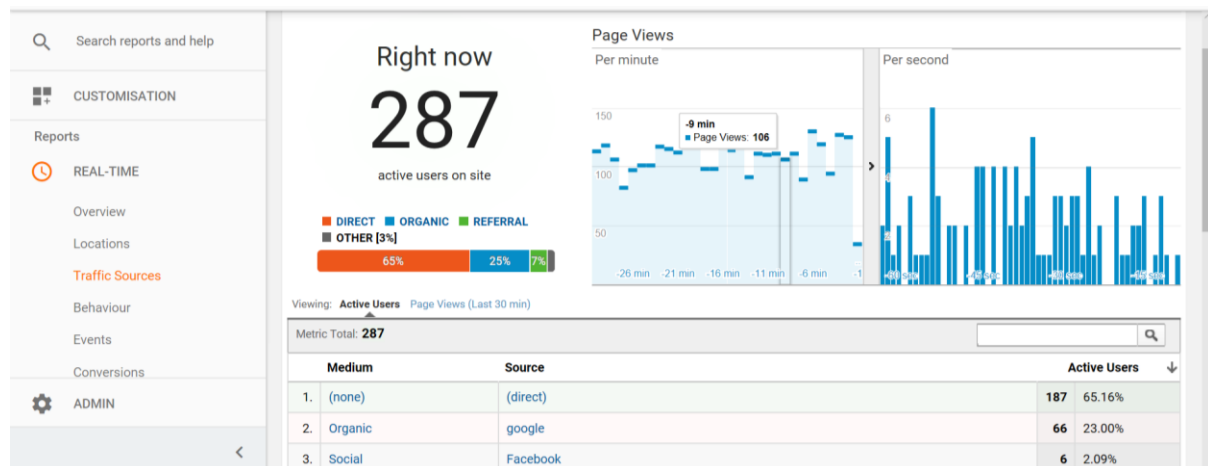


**Note that, as this section provides real-time reporting, the answers to the questions below will vary depending on the time the report is access.** However, the exercise will provide some experience navigating these set of reports.

| QNum | Question | Answer |
|------|----------|--------|
| 1 | Navigate to 'Real-time and select the Content report. What is the top active page? What percentage of active users are on that page? | |
| 2 | Under Locations, what country brought in the highest number of active users? Click on the country to set a filter. What city has the highest number of active users? | |
| 3 | Select Traffic Sources. What percentage of traffic is direct vs Paid in the last 30 minutes? | |

## 1.3. Audience View

After the real-time section, we have the audience section. Unlike the real-time section, metrics calculated here are based on historic data. The audience section contains reports relating to the characteristics of each user of the website under analysis. Some of the specific characteristics which can be analysed include languages spoken, where they come from (countries, cities etc.), devices (i.e. tablets or mobile phones), browsers (Chrome, Firefox, Safari), operating systems (Apple, Windows), internet services providers (BT Internet, TalkTalk) and screen resolutions of your visitors.
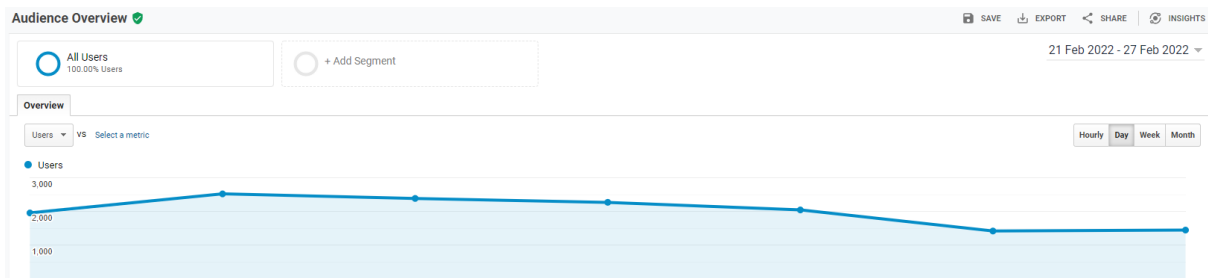
Scrolling to the bottom of the overview report you will find also statistics relating to the number of sessions that have taken place (a constant period in which a user is engaged with a site), bounce rate, pages viewed per session and the number of new sessions. A pie chart on the right-hand side displays the ratio of returning visitors to new visitors. The screenshot below shows this view for the Google Merchandise store.
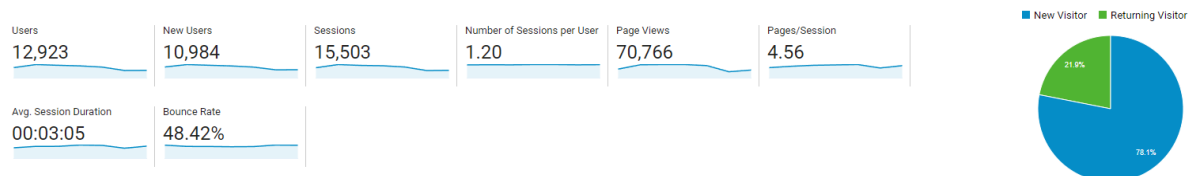


Google Analytics also permits us to select two dates ranges for comparison. The screenshot below shows how to select both date ranges.
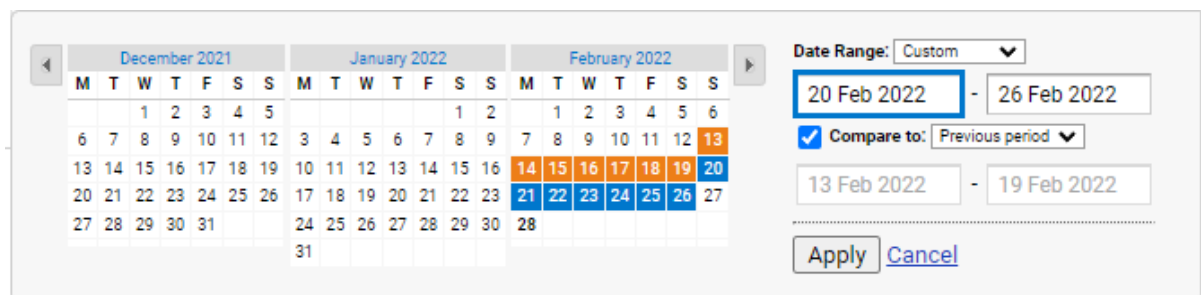


When this filter is applied, I can see that, for all my reports, there are now two-colour coded series plotted to represent the two periods of interest. In the screenshot below shows, there has been a consistent drop in the number of users compared to the previous week with the biggest drop of c. 25% happening on Wed 23rd February (Note: hovering on the data shows the underlying data)
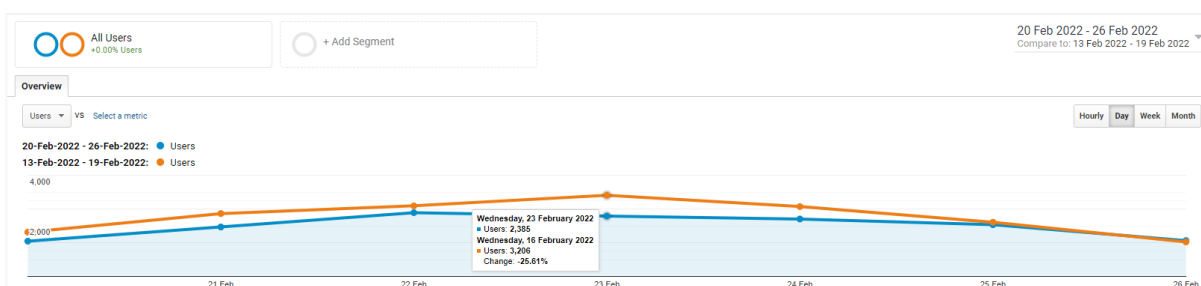
A set of useful reports in the audience view are the Demographics and Interests reports. From the Demographics report you can see an overview and details of the metric of interest broken down by age and gender. The screenshot below shows an overview of user by age and gender.
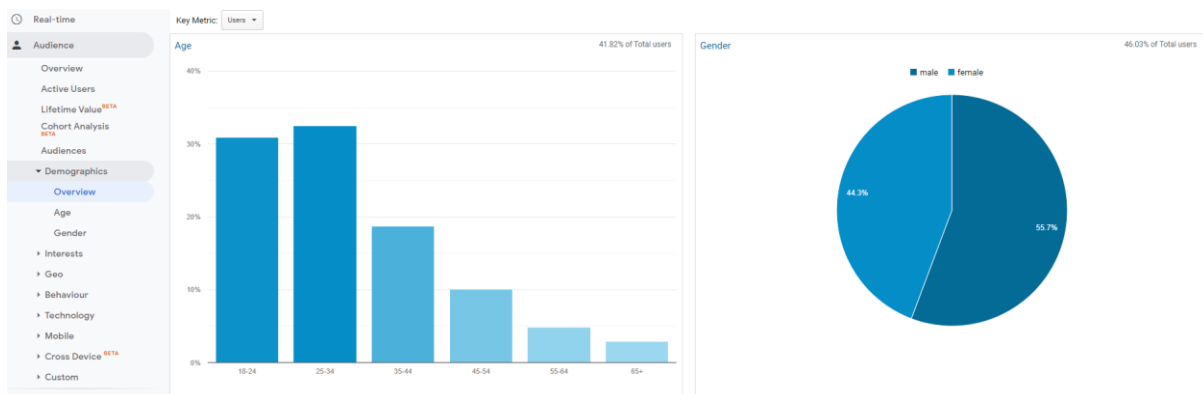


The Interests reports displays the interests your website user express through their online travel and purchasing activities. The screenshot below shows this report for Google Merchandise store users.
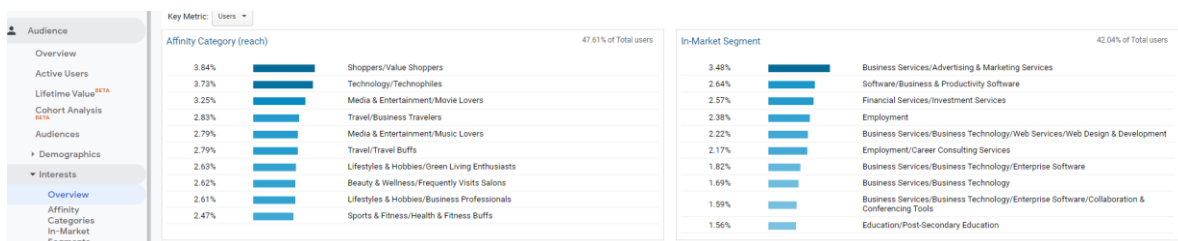


The interest category 'Affinity Categories' refers to user's lifestyles categorisation similar to TV audiences (e.g. Technophiles, Sports Fans, and Cooking Enthusiasts) whilst In-Market Segments refers to user's Product-purchase interests

Read how data for both the Demographics and Interests reports are collected from the link below:

https://support.google.com/analytics/answer/2799357?hl=en#zippy=%2Cin-this-article

Note this paragraph highlighting the limitations of these reports: *"Demographics and interests data may only be available for a subset of your users, and may not represent the overall composition of your traffic: Analytics cannot collect the demographics and interests information if the DoubleClick cookie or the Device Advertising ID is not present, or if no activity profile is included."*

Three other reports that are of relevance in modern times are the technology, mobile and cross device reports. This is because these reports allow the web analyst to understand which type of devices users use to access the site. Recent research shown for example that women are more likely to make online shopping via a tablet whereas males are more likely to use their desktop.

The screenshot below shows the browser sub-report within the technology section. For this website, over four times as many sessions take place using Google Chrome compared to Safari (76% vs 17% respectively). Such information can be used when designing new webpages, for example by checking page content is displayed correctly.

Similarly, the devices report shows the make and model of the computer or device used to access the site. This information is taken form the user agent string that is sent by the browser. From the report below, we observe that both the iPhone is by far the most popular devices used to access the Google Merchandise store.



Finally, the Cross Device report stiches together data across multiple devices into a single report, so you get a better idea of how seemingly unrelated sessions, and interactions are connected.

This enables differentiation of segment of users who start their searches on a mobile device and purchases on a desktop within the same day from another segment who clicks an ad on a mobile device, browses your site on a tablet a couple of days later, and returns to make a purchase on their mobile a week later.

PS: Note that you don't have access to the cross-device report for the Google Merchandise store. You will get the following message if you attempt to access it: "Missing permissions - You do not have access to the account, property, or view. Contact an Analytics administrator who has the Manage Users permission". If you want to practice creating goals, you should Access the Google Analytics properties for the website you created in LW4 or another site for which you have access.

| QNum | Question | Answer |
|---|---|---|
| 4 | Navigate to 'Audience' and select the Demographics Overview report. Which age group accounted for the lowest percentage of users in the last 30 days? What was the percentage? | |
| 5 | Under Audience, in the Geo > Location report for the United States, what region brought in the highest number of new users in the last 7 days? What was the percentage? | |
| 6 | Under Audience > Behaviour, in the 'New vs Returning' report, what percentage of visitors were returning for today? | |

## 1.4. Acquisition View

The acquisition view contains several reports relating to how users found the website. For example, we can check the amount of traffic that is referred from different search engines, the number of social networks visits, paid search, email and direct traffic.
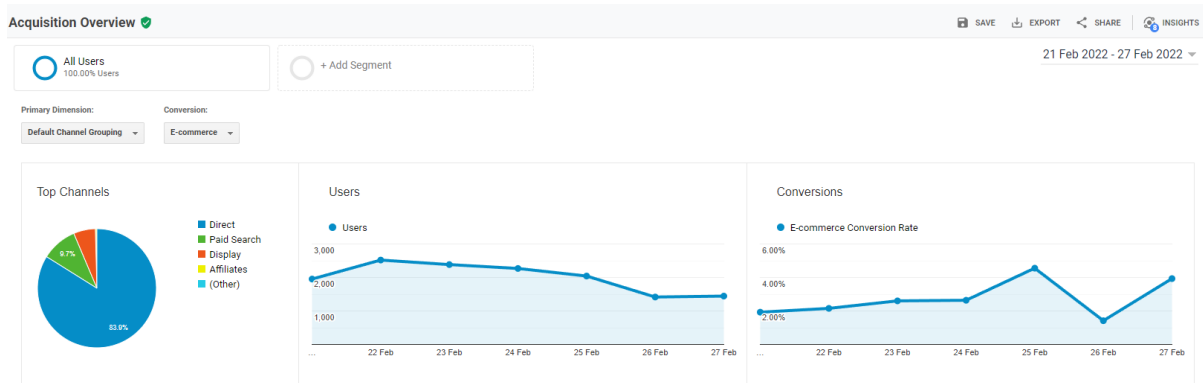


A useful feature of this report is that it allows us to see how users, received by different channels i.e., search or email, behave once they have landed on the site. From the screenshot below, we can see that the bounce rate for display (i.e., traffic that found your site by clicking on an ad that ran on another website e.g., Banner ads on blogs, image ads on news sites, etc) is significantly higher than bounce rate for organic searches.

| | Acquisition | | | Behaviour | | | Conversions | | |
|---|---|---|---|---|---|---|---|---|---|
| | Users | New Users | Sessions | Bounce Rate | Pages/Session | Avg. Session Duration | E-commerce Conversion Rate | Transactions | Revenue |
| | 12,923 | 10,984 | 15,503 | 48.42% | 4.56 | 00:03:05 | 2.74% | 425 | US$42,922.13 |
| 1 Direct | 10,775 | | | 44.18% | | | 2.62% | | |
| 2 Paid Search | 1,250 | | | 63.60% | | | 5.51% | | |
| 3 Display | 764 | | | 87.38% | | | 0.12% | | |
| 4 Affiliates | 52 | | | 68.97% | | | 0.00% | | |
| 5 (Other) | 3 | | | 66.67% | | | 0.00% | | |

To see all 5 Channels click here.

This report was generated on 28/02/2022 at 15:19:51 - Refresh Report

The referrals report gives additional detail about the specific websites that users were referred from. In the case of the University of Westminster website a fairly substantial amount of referrals are from the mobile version of the Facebook website.
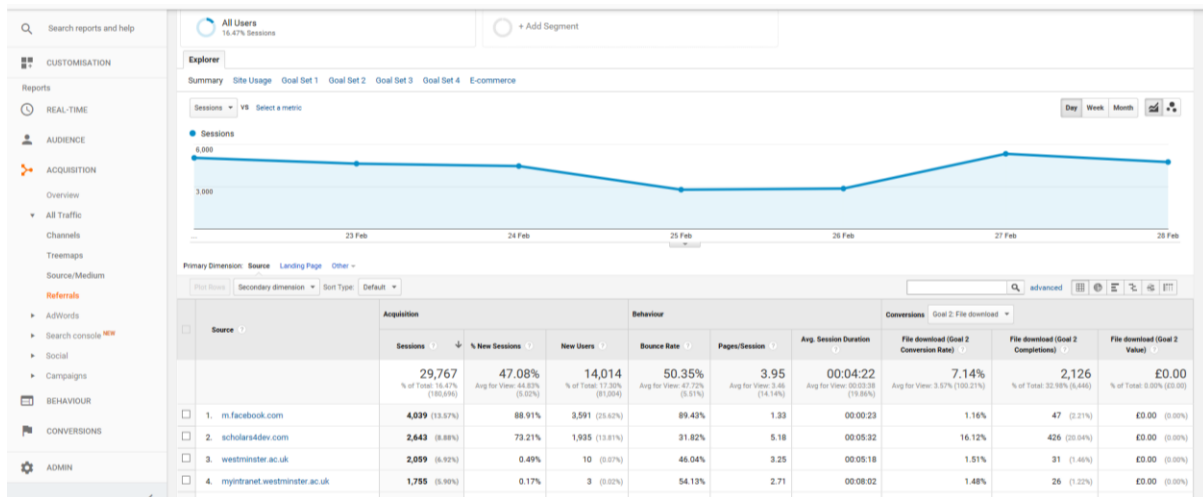
| QNum | Question | Answer |
|------|----------|--------|
| 7 | Navigate to 'Acquisition' and select the Google Ads > Hour of Day report for the last 30 days. What time of day is the busiest in terms of visitors acquired via Google Ads? How many users (on average) visited at that time of day | |
| 8 | Navigate to 'Acquisition' and select the Search console > Landing Pages report. Which of the product categories did visitors initially land on when they visited the Google Merchandise store?<br>   A.  Accessories<br>   B.  Apparel<br>   C.  Clearance<br>What was the percentage? | |
| 9 | Under Search console > Queries, what was the top search phrase that brought traffic to the store? How many clicks did this phrase drive? | |

## 1.5.Behaviour View`

The behavior section mostly contains reports relating to engagement metrics and the specific content that user's access. The reports available in this section can be useful in identifying poorly performing pages and similarly those that are visited most often.
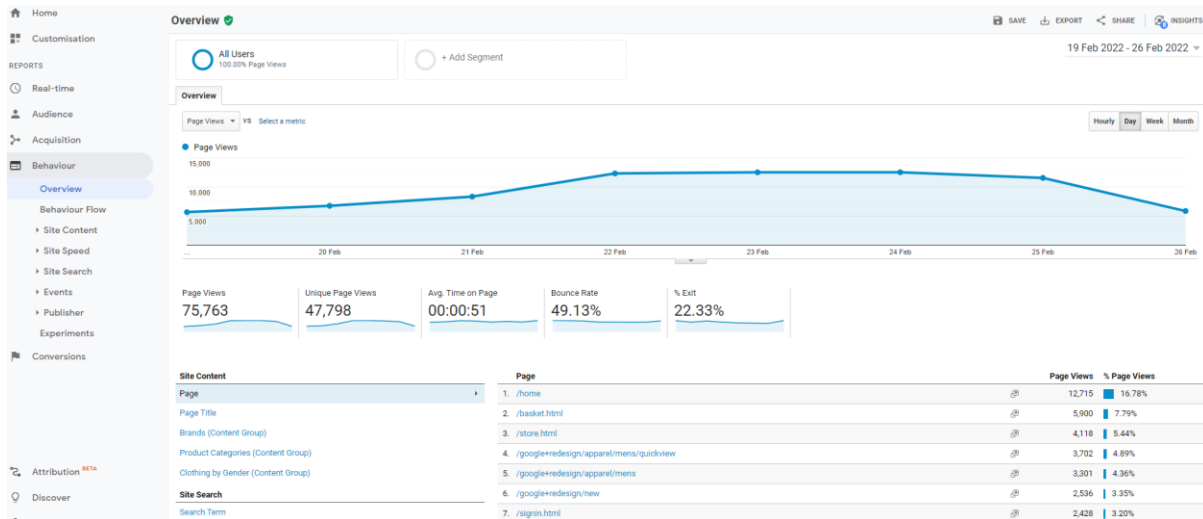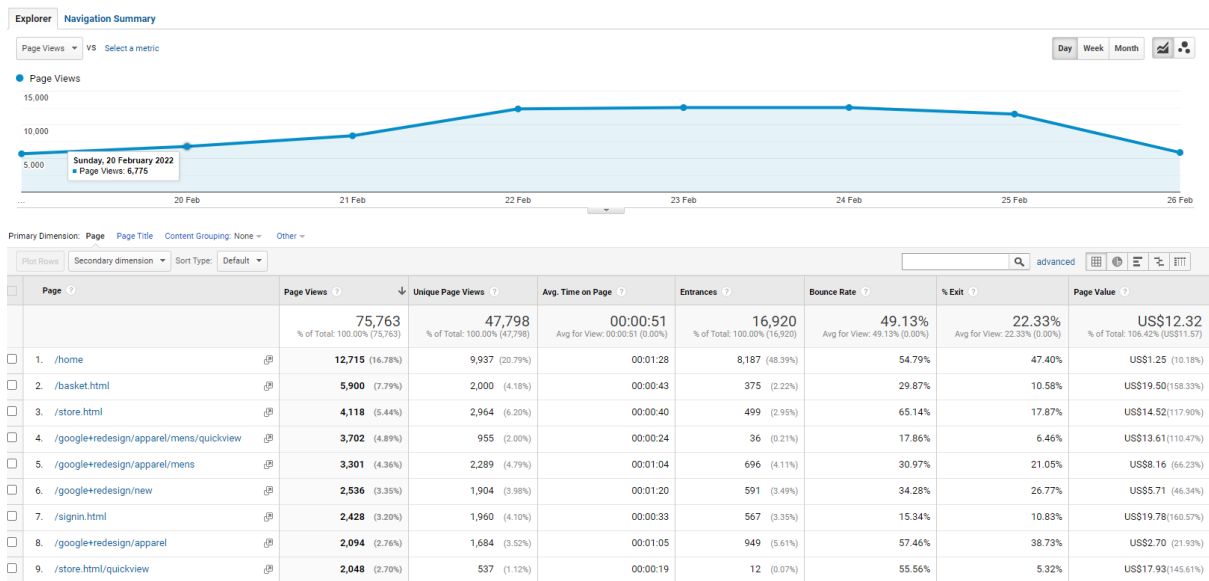


At the bottom of this report, you will find a list of the most popular pages on the Google Merchandise store and the proportion of page views for each URL. The pattern seen below is typical of many websites, in that the number of page views decreases rapidly the further down the list we go.
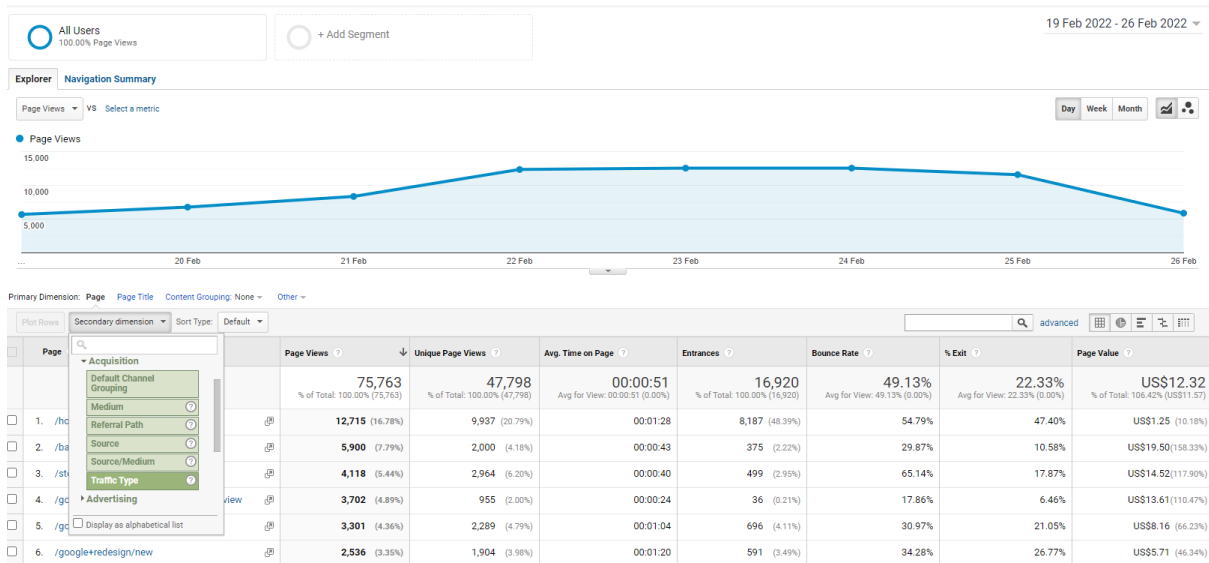
| Page | | Page Views | % Page Views |
|------|--|-----------|--------------|
| 1. /home | | 12,715 | 16.78% |
| 2. /basket.html | | 5,900 | 7.79% |
| 3. /store.html | | 4,118 | 5.44% |
| 4. /google+redesign/apparel/mens/quickview | | 3,702 | 4.89% |
| 5. /google+redesign/apparel/mens | | 3,301 | 4.36% |
| 6. /google+redesign/new | | 2,536 | 3.35% |
| 7. /signin.html | | 2,428 | 3.20% |
| 8. /google+redesign/apparel | | 2,094 | 2.76% |
| 9. /store.html/quickview | | 2,048 | 2.70% |
| 10. /google+redesign/new/quickview | | 1,732 | 2.29% |
| | | | view full report |

The Site Content->All pages report gives some more detailed metrics for each individual page. One metric that we have not seen so far is the Exit rate. Although similar to the bounce rate, the Exit rate refers to the proportion of visitors that browsed each specific page and then left the site.

| Page | Page Views | Unique Page Views | Avg. Time on Page | Entrances | Bounce Rate | % Exit | Page Value |
|---|---|---|---|---|---|---|---|
| | 75,763 % of Total: 100.00% (75,763) | 47,798 % of Total: 100.00% (47,798) | 00:00:51 Avg for View: 00:00:51 (0.00%) | 16,920 % of Total: 100.00% (16,920) | 49.13% Avg for View: 49.13% (0.00%) | 22.33% Avg for View: 22.33% (0.00%) | US$12.32 % of Total: 106.42% (US$11.57) |
| 1. /home | 12,715 (16.78%) | 9,937 (20.79%) | 00:01:28 | 8,187 (48.39%) | 54.79% | 47.40% | US$1.25 (10.18%) |
| 2. /basket.html | 5,900 (7.79%) | 2,000 (4.18%) | 00:00:43 | 375 (2.22%) | 29.87% | 10.58% | US$19.50 (158.33%) |
| 3. /store.html | 4,118 (5.44%) | 2,964 (6.20%) | 00:00:40 | 499 (2.95%) | 65.14% | 17.87% | US$14.52 (117.90%) |
| 4. /google+redesign/apparel/mens/quickview | 3,702 (4.89%) | 955 (2.00%) | 00:00:24 | 36 (0.21%) | 17.86% | 6.46% | US$13.61 (110.47%) |
| 5. /google+redesign/apparel/mens | 3,301 (4.36%) | 2,289 (4.79%) | 00:01:04 | 696 (4.11%) | 30.97% | 21.05% | US$8.16 (66.23%) |
| 6. /google+redesign/new | 2,536 (3.35%) | 1,904 (3.98%) | 00:01:20 | 591 (3.49%) | 34.28% | 26.77% | US$5.71 (46.34%) |
| 7. /signin.html | 2,428 (3.20%) | 1,960 (4.10%) | 00:00:33 | 567 (3.35%) | 15.34% | 10.83% | US$19.78 (160.57%) |
| 8. /google+redesign/apparel | 2,094 (2.76%) | 1,684 (3.52%) | 00:01:05 | 949 (5.61%) | 57.46% | 38.73% | US$2.70 (21.93%) |
| 9. /store.html/quickview | 2,048 (2.70%) | 537 (1.12%) | 00:00:19 | 12 (0.07%) | 55.56% | 5.32% | US$17.93 (145.61%) |

In some cases it may be useful to break down metrics by one or more other dimensions. To do this in Google Analytics we can click on the "Secondary dimension" button shown above the report and search for a new dimension to panel the results by. In the screenshot below I have added the traffic type dimension, this will allow me to see how the top pages compare when we consider different types of traffic sources.



As we would expect, users that navigated to the site using a direct link tend to have a lower bounce rate compared to those that followed an external link or were referred from an external search engine.

| Page | Traffic Type | Page Views | Unique Page Views | Avg. Time on Page | Entrances | Bounce Rate | % Exit | Page Value |
|---|---|---|---|---|---|---|---|---|
| | | 75,763<br>% of Total: 100.00%<br>(75,763) | 47,798<br>% of Total: 100.00%<br>(47,798) | 00:00:51<br>Avg for View: 00:00:51<br>(0.00%) | 16,920<br>% of Total: 100.00%<br>(16,920) | 49.13%<br>Avg for View: 49.13%<br>(0.00%) | 22.33%<br>Avg for View: 22.33%<br>(0.00%) | US$12.32<br>% of Total: 106.42%<br>(US$11.57) |
| 1. /home | direct | 11,311 (14.93%) | 8,681 (18.16%) | 00:01:28 | 6,992 (41.32%) | 49.69% | 43.59% | US$1.15 (9.32%) |
| 2. /basket.html | direct | 5,534 (7.30%) | 1,889 (3.95%) | 00:00:44 | 365 (2.16%) | 29.32% | 10.55% | US$18.00 (146.13%) |
| 3. /store.html | direct | 3,506 (4.63%) | 2,488 (5.21%) | 00:00:41 | 202 (1.19%) | 34.15% | 12.26% | US$15.75 (127.88%) |
| 4. /google+redesign/apparel/mens/quickview | direct | 3,465 (4.57%) | 894 (1.87%) | 00:00:24 | 34 (0.20%) | 18.52% | 6.29% | US$13.75 (111.62%) |
| 5. /google+redesign/apparel/mens | direct | 3,122 (4.12%) | 2,156 (4.51%) | 00:01:06 | 673 (3.98%) | 30.15% | 20.98% | US$8.32 (67.57%) |
| 6. /google+redesign/new | direct | 2,375 (3.13%) | 1,779 (3.72%) | 00:01:20 | 554 (3.27%) | 34.04% | 27.03% | US$5.83 (47.35%) |
| 7. /signin.html | direct | 2,311 (3.05%) | 1,861 (3.89%) | 00:00:34 | 555 (3.28%) | 15.32% | 10.86% | US$18.17 (147.52%) |
| 8. /store.html/quickview | direct | 1,853 (2.45%) | 478 (1.00%) | 00:00:18 | 12 (0.07%) | 55.56% | 4.64% | US$19.68 (159.76%) |
| 9. /google+redesign/new/quickview | direct | 1,661 (2.19%) | 574 (1.20%) | 00:00:37 | 16 (0.09%) | 0.00% | 8.13% | US$8.81 (71.55%) |
| 10. /google+redesign/lifestyle/bags | direct | 1,561 (2.06%) | 1,205 (2.52%) | 00:00:49 | 289 (1.71%) | 29.79% | 19.47% | US$9.30 (75.55%) |
| 11. /asearch.html | direct | 1,490 (1.97%) | 849 (1.78%) | 00:00:59 | 201 (1.19%) | 44.88% | 24.50% | US$9.62 (78.13%) |
| 12. /google+redesign/apparel | direct | 1,481 (1.95%) | 1,147 (2.40%) | 00:01:07 | 473 (2.80%) | 36.55% | 27.41% | US$2.95 (23.97%) |
| 13. /google+redesign/shop+by+brand/youtube | direct | 1,429 (1.89%) | 1,180 (2.47%) | 00:01:23 | 743 (4.39%) | 51.88% | 39.26% | US$1.64 (13.32%) |
| 14. /home | paid | 1,318 (1.74%) | 1,190 (2.49%) | 00:01:19 | 1,131 (6.68%) | 85.44% | 79.21% | US$2.09 (16.99%) |
| 15. /google+redesign/lifestyle/drinkware | direct | 1,310 (1.73%) | 998 (2.09%) | 00:00:58 | 189 (1.12%) | 28.04% | 16.87% | US$11.90 (96.66%) |
| 16. /google+redesign/lifestyle/drinkware/quickview | direct | 1,193 (1.57%) | 395 (0.83%) | 00:00:25 | 1 (0.01%) | 0.00% | 5.45% | US$18.21 (147.87%) |
| 17. /yourinfo.html | direct | 1,142 (1.51%) | 651 (1.36%) | 00:00:59 | 0 (0.00%) | 0.00% | 8.14% | US$52.25 (424.26%) |
| 18. /google+redesign/apparel/womens | direct | 1,112 (1.47%) | 791 (1.65%) | 00:00:54 | 184 (1.09%) | 33.87% | 16.46% | US$9.41 (76.39%) |

It is worth noting that a very powerful feature of Google Analytics is the ability to export reports. To do this you need to click on the Export link at the top of each report and then choose what format you would like to export the results to. I recommend exporting the CSV or Excel version if you would like to perform statistical testing of the differences in page performance. On the other hand the PDF version is useful for archival purposes.
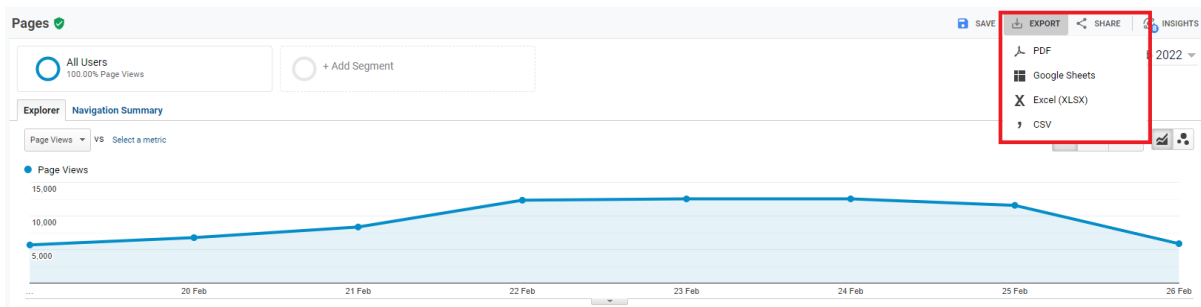


If you would like to document changes in your web metrics over time you can use the "Share" function to have a report generated and emailed to you.
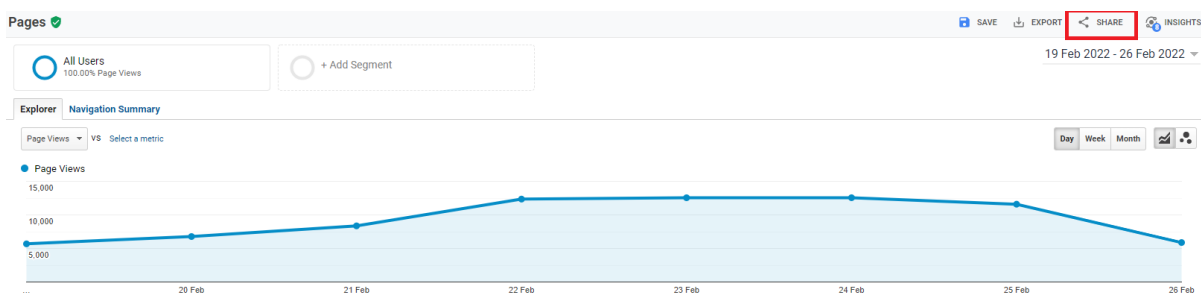


As with Export, the email can include a PDF version of the report or CSV/Excel versions. Using an email report, you can configure the frequency of the emails and when to send them, for example once a week every Saturday.
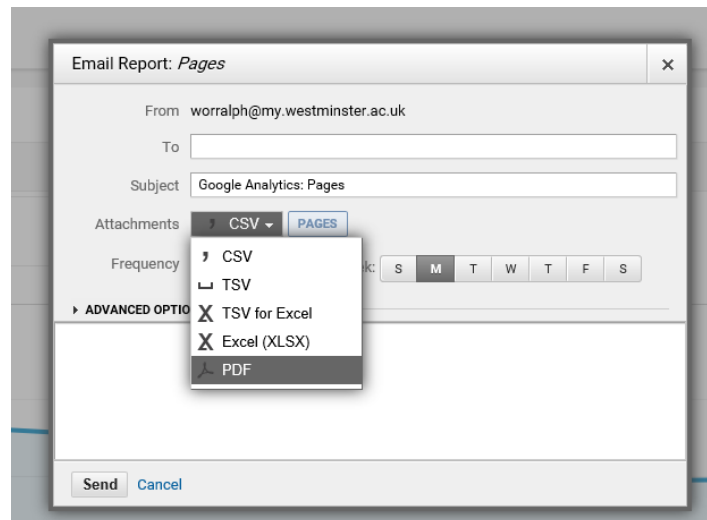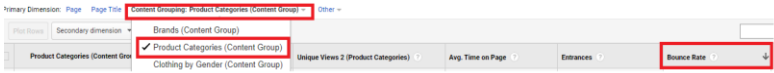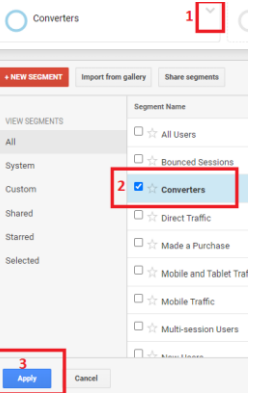
The Behaviour flow report (contained within the behaviour section) enables analysis of traffic using a funnel diagram. Once you have opened this report you will see the stages of interaction for users of your site. By default, the report shows the pages that users visit starting at different landing points. The report below highlights that the most common landing page is the home page. As we go from the 1st interaction to the 2nd and third interaction, we see that the number of users at each stage falls as some users end their session. As seen previously, we can customise this funnel diagram by selecting the segment of users we would like to focus on or choose a different starting point.
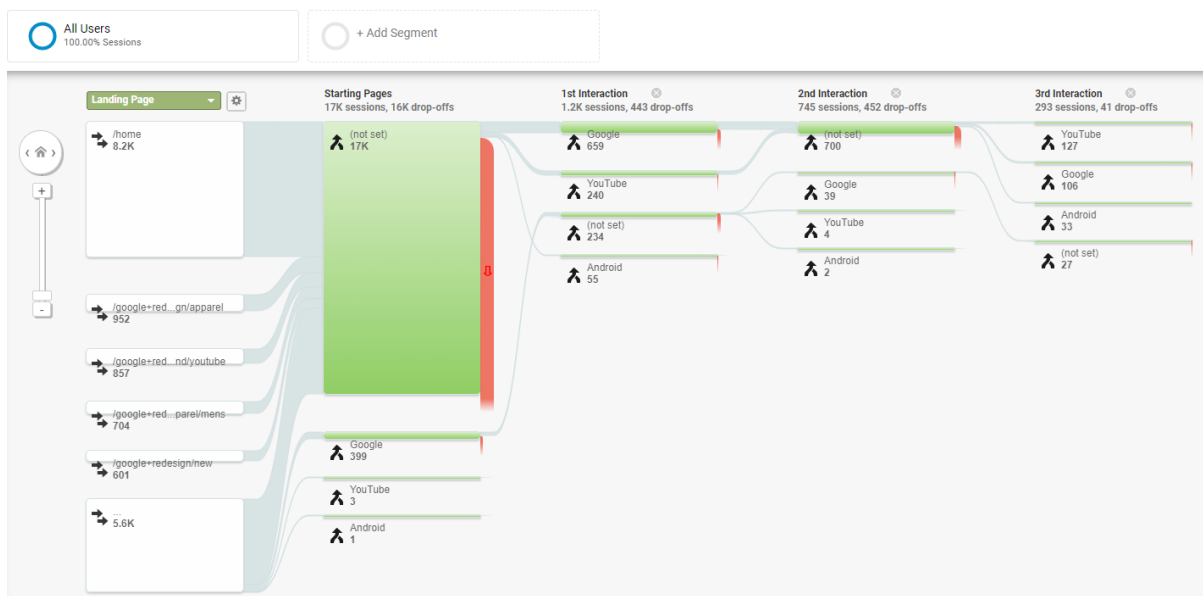


| QNum | Question | Answer |
|------|----------|--------|
| 10 | Navigate to 'Behaviour' and select the Site Speed > Overview report. Based on the initial report shown (not full report) which browser has the worst average page load time? What do you predict is the user's response to longer than expected page load times and the impact on the store? | |
| 11 | Under Site Content, select the All Pages report. Change the content grouping to 'Content Grouping' and select Product Category. Sort the Bounce rate in descending order (Sort Type = Default; see screenshot below). Which of the product category | |

| | | |
|---|---|---|
| | has the highest bounce rate? What recommendation(s) would you make to improve the bounce rate for this product category?<br><br> | |
| 12 | Select the Site Content > Content Drilldown report. Segment the visitors to the store to view only those that converted (.i.e. those that took some action of value e.g. bought a product – see screenshot below)<br><br><br><br>What was the top content page viewed by converters? What percentage of converters viewed that page? What insight do you gain from this? | |

## 1.6. Dashboards

Google Analytics ddashboards consist of a collection of widgets and reports that can be used to give you an overview of web metrics of most interest to your site. In this way, dashboards let you monitor many metrics at once from across different categories, so you can quickly check the health and performance of a website and check correlations between different reports.

Dashboards can be created in a variety of different ways, and you can even import pre-made dashboards that others have developed. For example, there are specialist dashboards for ecommerce websites, which focus on conversion metrics and dashboards for news orientated sites where metrics of interest are more focused on user engagement. To access and edit your dashboards you will need to click on the customisation link shown in the main menu.
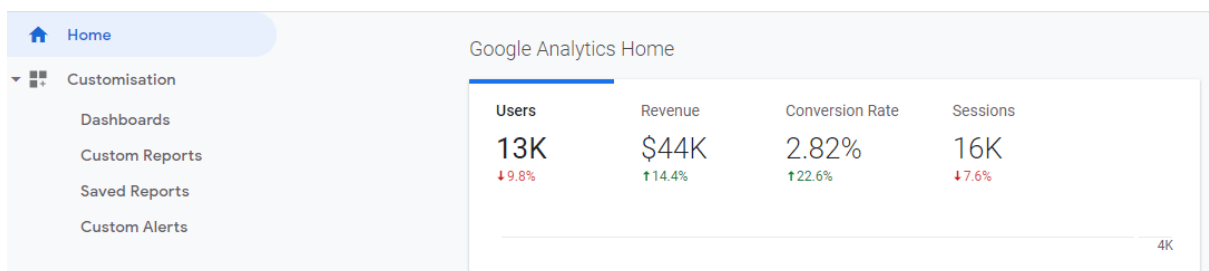


Next select the dashboard menu option. The Google Merchandise store has created several shared dashboards. To create a new dashboard, click on the create button.

Next you will need to choose between starting with a blank dashboard or using one of the pre-made templates. There is also the option to import a dashboard from a list of pre-generated ones that people have already uploaded. In this example I am going to create a new dashboard from a blank canvas. The name of my dashboard is going to be "Key Metrics".
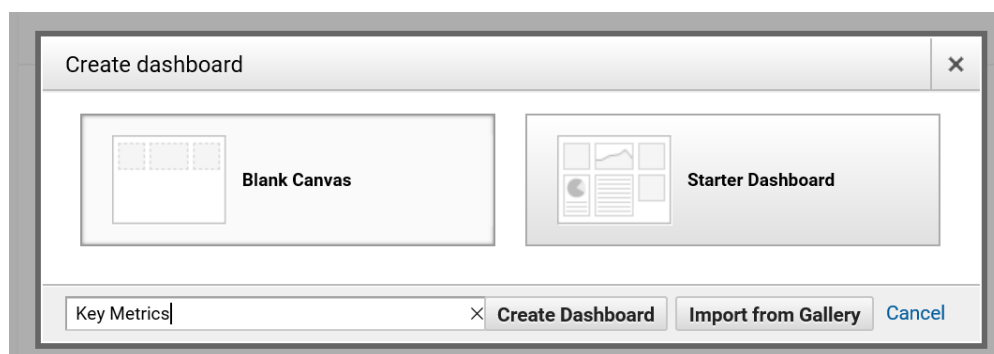


Recall that dashboards consist of a series of widgets, each displaying information, or a report based on one or more metrics. In this case my dashboard will consist of just a single widget.
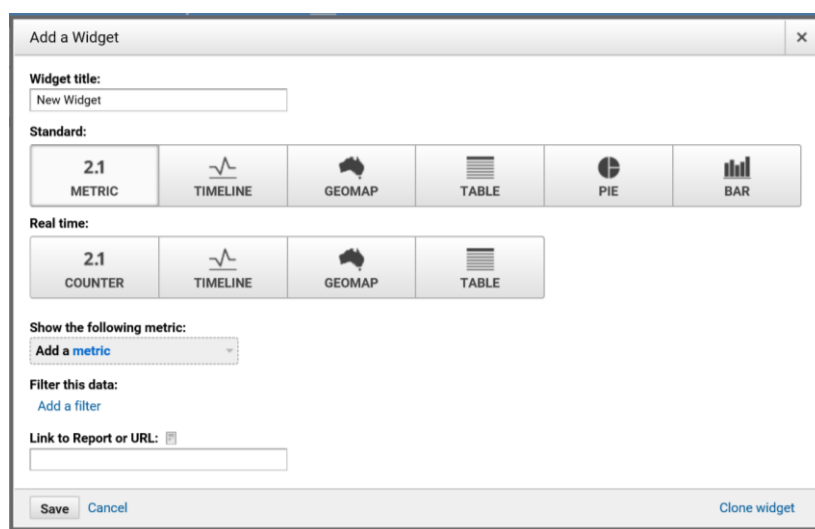
Next, I click on the standard metric and in the search box I enter the term bounce, as I want my widget to show the current bounce rate on the site.
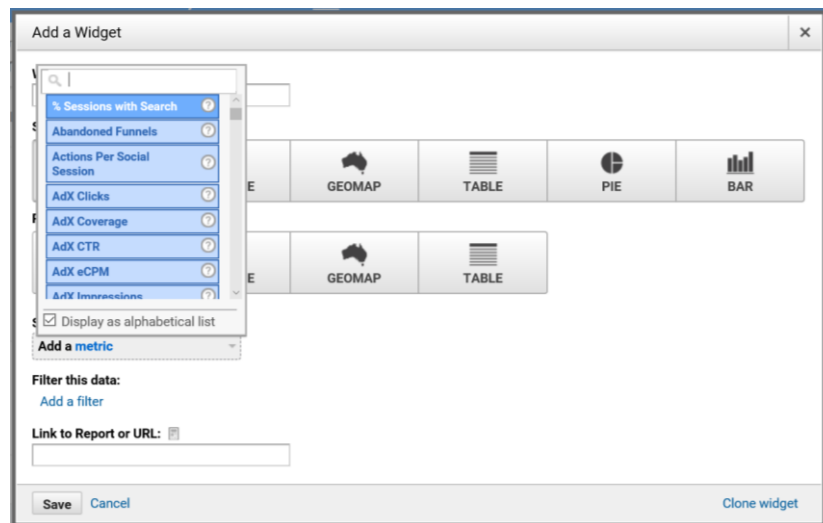


There are two metrics associated with bounce, the bounce rate which is the proportion of single page visits and the number of bounces in total. In this case I will select the bounce rate.
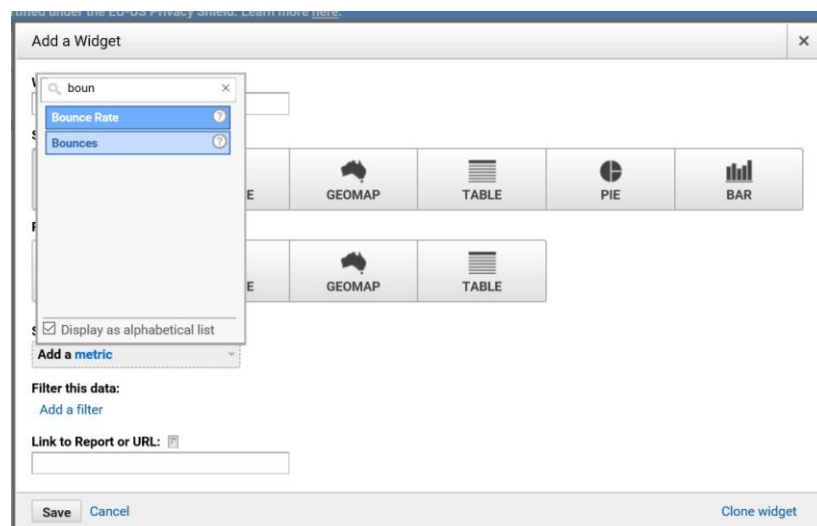


After giving my widget a title, I edit the widget further by selecting a filter. In this case my filter will be to only include visits during 2021 in my bounce rate. To do this I select the year from the list of filter options.
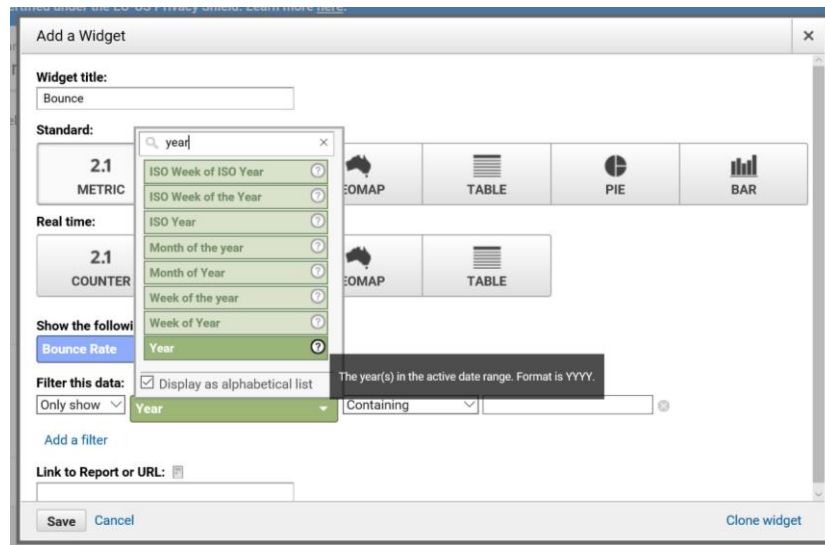
Next, I add the year 2021 as the criteria. In this way only visits recorded in 2021 will be selected for the bounce rate calculation.
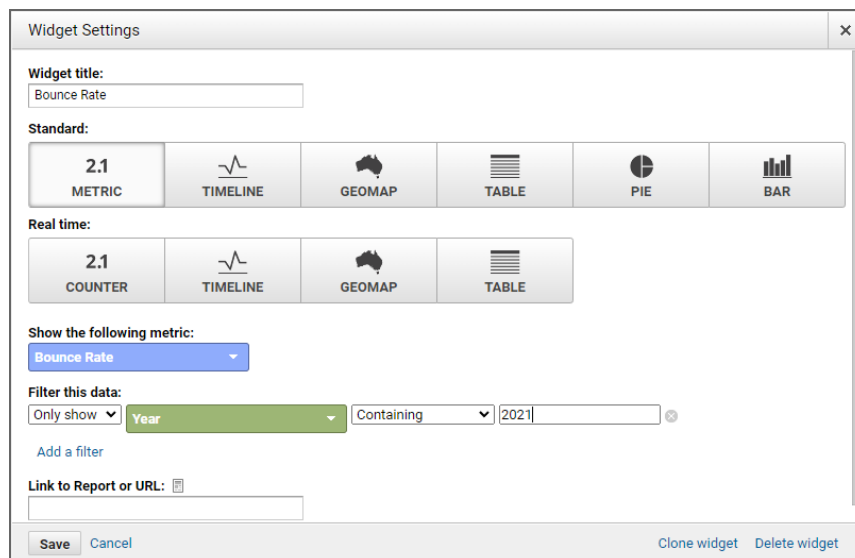


After clicking save I can see that my new dashboard based on key metrics is displayed. Furthermore, my only widget, is displayed underneath. In practice, you can create dashboards based on a multitude of different widgets to summarise data across any number of relevant reports.
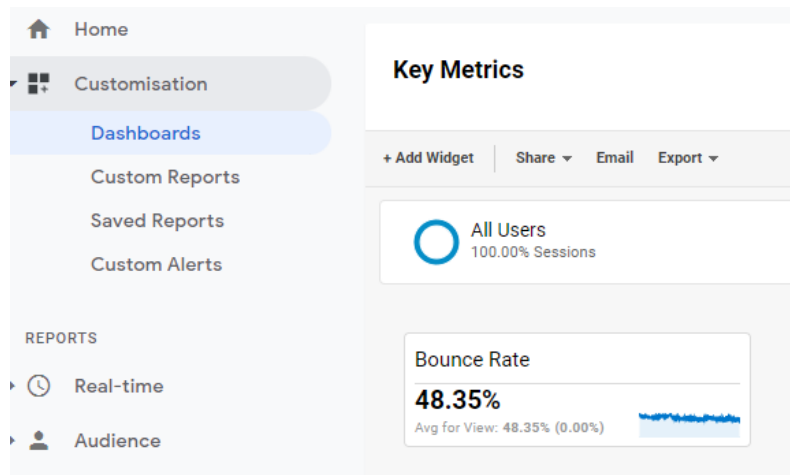
| QNum | Question | Answer |
|------|----------|--------|
| 13 | Create a dashboard named 'Abandoned Purchases - US' which shows the *abandoned funnels* for the *United States.* What % of purchases which were started were abandoned? What is the number of abandoned funnels? | |

## 1.7. Custom Alerts

As we have already seen Google Analytics offers a lot in the way of performance information about a website. In some cases, when you are happy with the performance of a website it may be convenient to configure Google Analytics to send notifications only when key metrics change. For example, you may want to be notified when the bounce rate of your site reaches an upper threshold. This can be done using the custom alert functionality.

To create a custom alter go to the Custom Alerts section from the customisation menu.
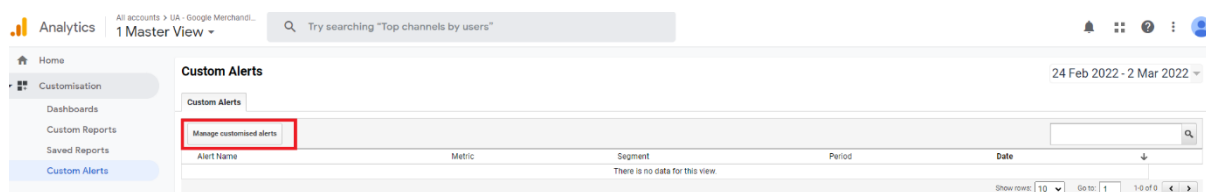


By default, your site will have no custom alerts configured. Click manage custom alerts to edit and configure new alerts.
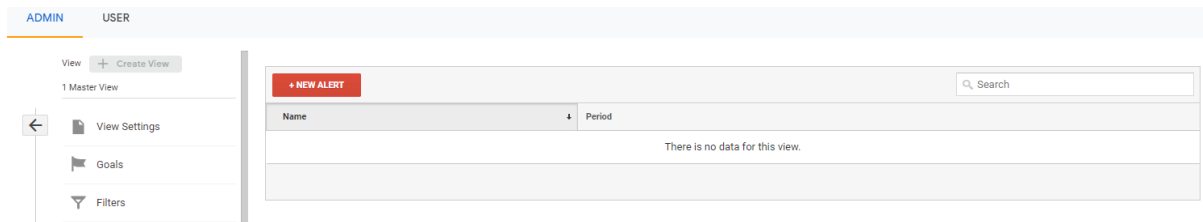
Next click on the new alert option.

From here we can configure the parameters of the alert. In this case the alert will be triggered when the bounce rate is greater than 60%. I use the name "High Bounce Rate" for this alert and I set it up so that the bounce rate of all users is averaged over the course of a day. Click save to activate your alert. You should now see that it appears in the custom alerts report.



## 1.8. Goals

At the end of learning week 5 we discussed the possibility of web metrics being combined to form goals. For example, an organisation that has identified web metrics relevant to their business might choose to target a specific level or indeed a percentage increase or decrease in one or more metrics. Google Analytics can help us to do this by defining goals for a website that are continuously monitored so that we can observe the extent to which we reach desired levels of performance.

To use Google Analytics goals on a site the goal functionality must first be activated. To do this you will need to click on the Admin menu.
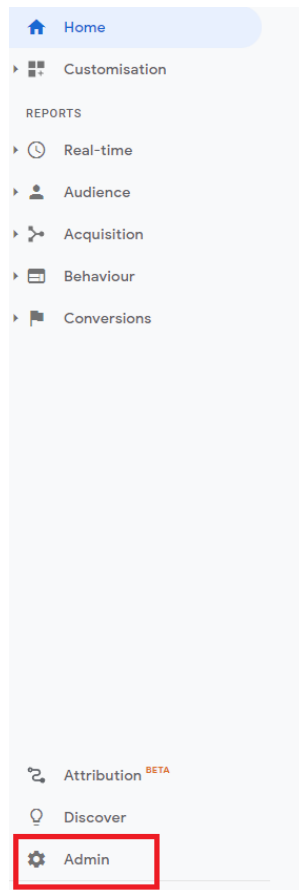
Next click on the Goals option within the View
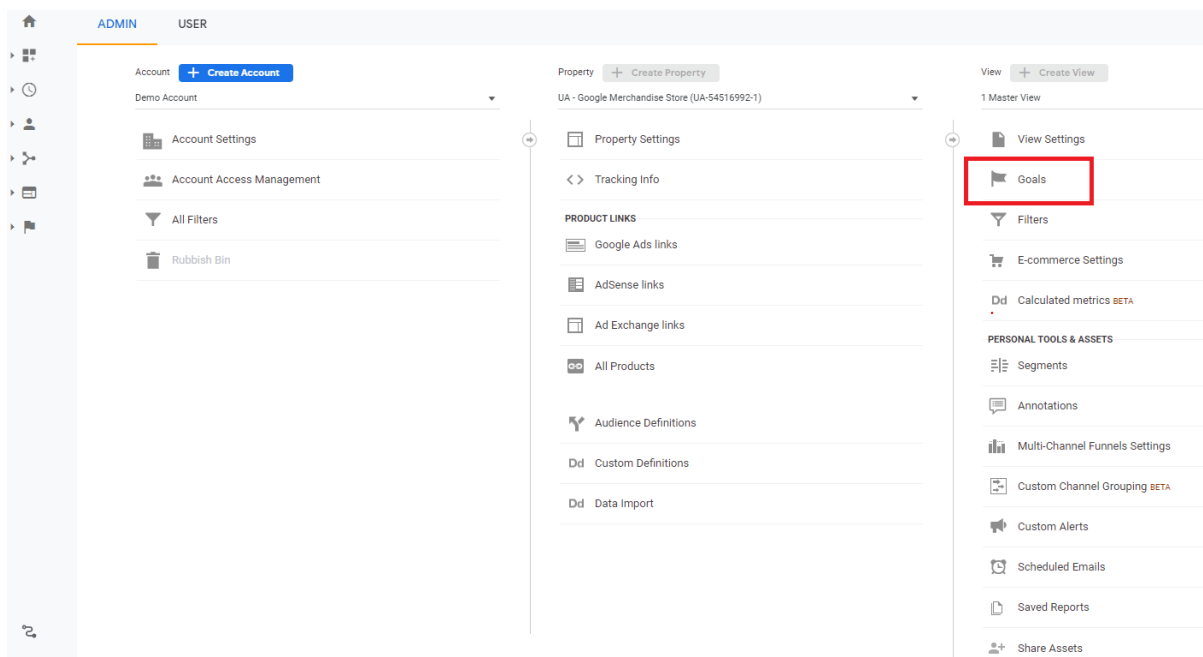
PS: If you are prompted to enable goals click 'Yes' to accept. Next you will see the available goals on the Google Merchandise store aligned to business goals e.g. starting the checkout process, completing a purchase, etc.



Note: You don't have permission to create new goals on the Google Merchandise store analytics account, so you need to switch across to the analytics account for the website you created in LW5 to complete the remainder of this exercise. See below for instructions for switching analytics accounts.
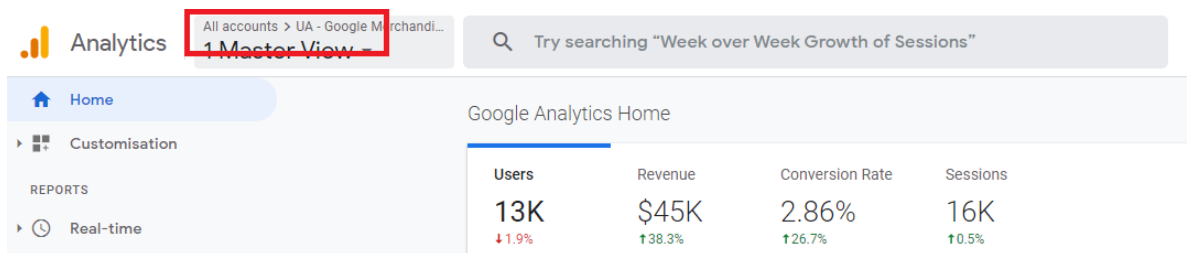


Select the account, property and view for your website.



Navigate to the Goals menu (as previously shown) and click 'New Goal' to begin defining a new goal.

Suppose that my website that I developed in LW5 is a personal site about myself. On this site I have a page that displays my CV. My goal for this site could be to increase the number of people that view the page that displays my CV, for example the cv.html page. Therefore, my new goal will be given the name "Viewed my CV".



To be able to identify a visit to my CV and thus an event that contributes towards meeting my goal, I need to specify that the goal is reached each time the destination of the site that the user views is the /cv.html page. I therefore use the following criteria shown below.



Once I have specified the parameters of the goal I click save. My new goal should show up in the goals report. Note that for each goal Google Analytics displays the number of conversions, i.e. the number of people who triggered the goal.

To be able to see a breakdown of each individual goal's performance we need to use the conversion section of Google Analytics. Click on the Conversions submenu on the left-hand menu. You should see an option to view the goals report. See screenshot below for the Goals Overview report for the Google Merchandise Store.
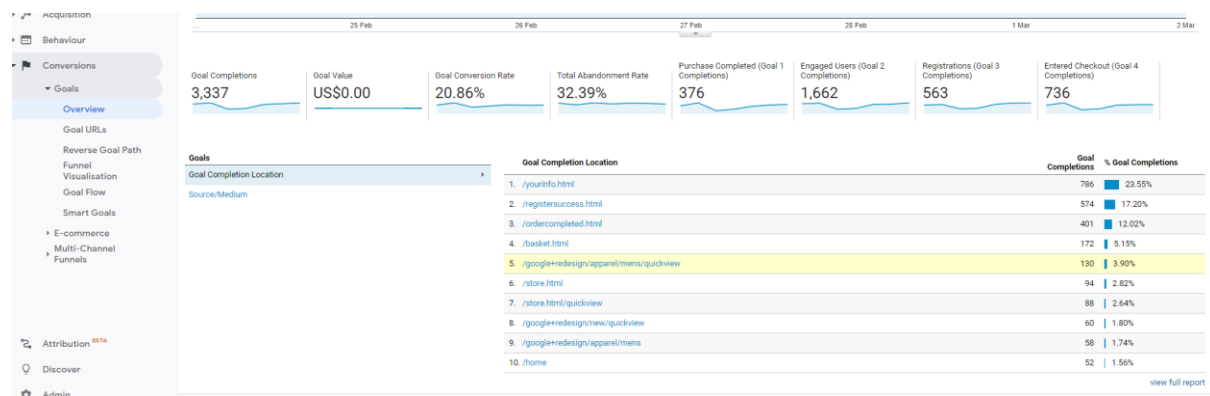
## Practice Exercises

Hopefully by following the examples above you have developed a good working knowledge of how to use the main features Google Analytics. Use the examples below to test your knowledge and practice using it.

| QNum | Question | Answer |
|------|----------|--------|
| 14 | Generate a page timings report for all pages. (You can find this in Behaviour --> site speed). | |
| 15 | Create a new dashboard called Site Overview that consists of at least 5 different widgets from across the different core categories of web metrics | |
| 16 | Create a report to show a breakdown of new visitors to the site by their traffic source for the last 7 days. | |
| 17 | Identify the top 5 landing pages by users that accessed the site using a mobile device | |
| 18 | Create a report that shows the top search queries used by all users for today's date. From your report identify the click through rate from search engine traffic and the average position of the site in the search results. | |
| 19 | Create a funnel diagram to show the flow of UK users through the site over the last month. Use this funnel to calculate the drop-off rate between 2$^{nd}$ and 3$^{rd}$ interactions. | |
| 20 | Create a report that identifies the worst 5 pages as measured by their exit rate and export this data as a CSV file. | |
| 21 | Create an automatic alert that shows you the weeks when the visits in your site are more than 50. | |
| 22 | Create an automatic alert that shows you the days when the visits in your site are less than 25. | |
| 23 | For your audience (Audience --> Overview) create a new segment that shows how many users have used operating system 'Windows'. Apply the segment and see the results. Expand the segment by adding the parameter: Browser: Chrome. | |

Additional resources for learning Google Analytics are available in the Google Analytics Academy: https://analytics.google.com/analytics/academy/