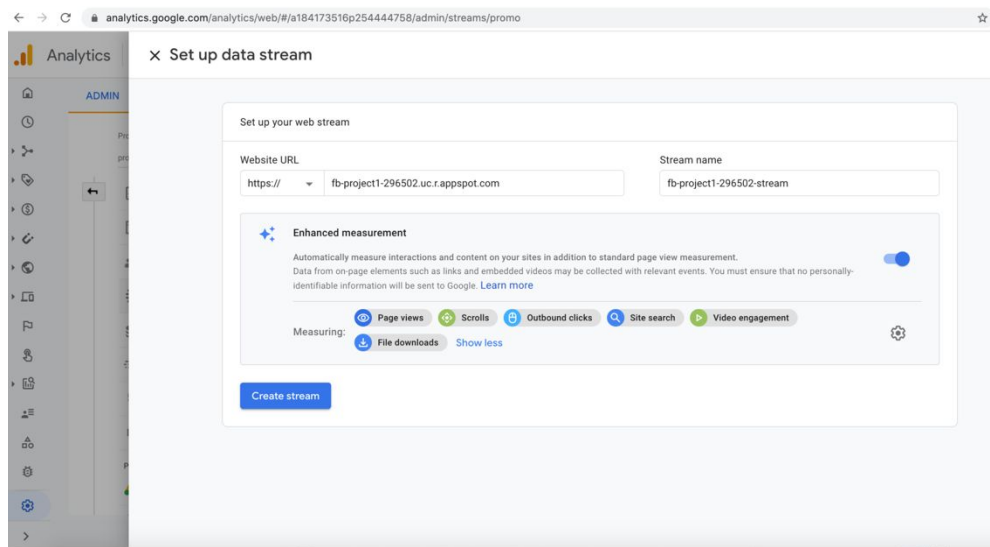


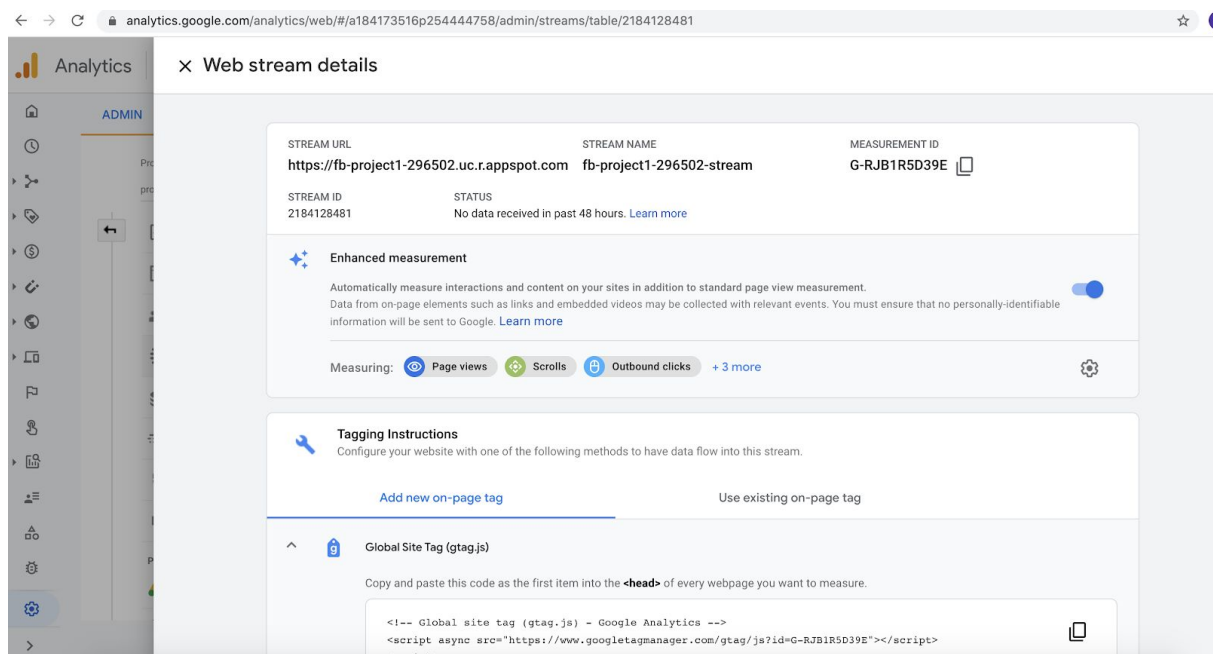
[Analytics Implementation & Comparison](#)

section 1= Google Analytics

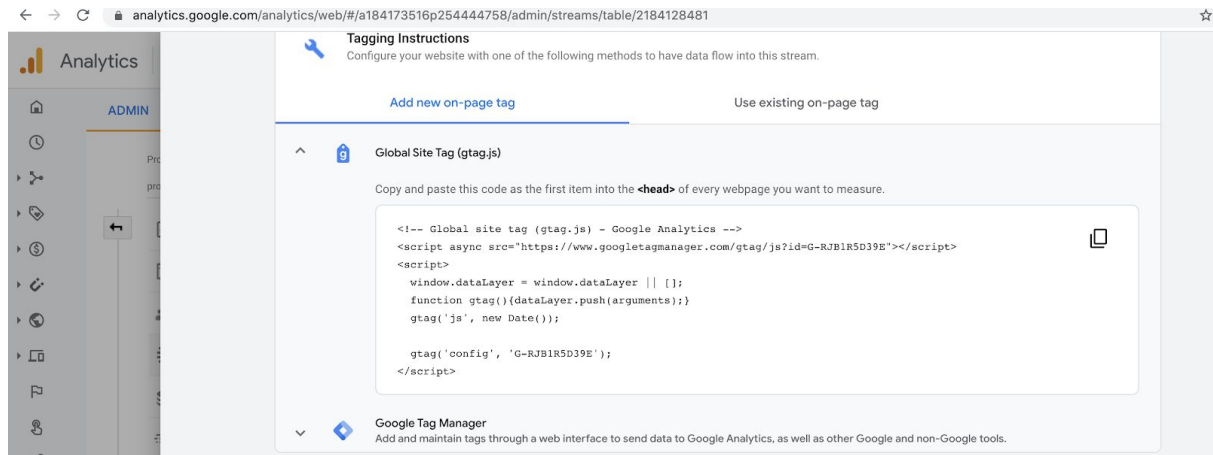
First step is to set up an Analytics account. Provide an account name. Configure the data-sharing setting to control which data you share with Google. Add data stream with website URL and stream name.



Stream created.

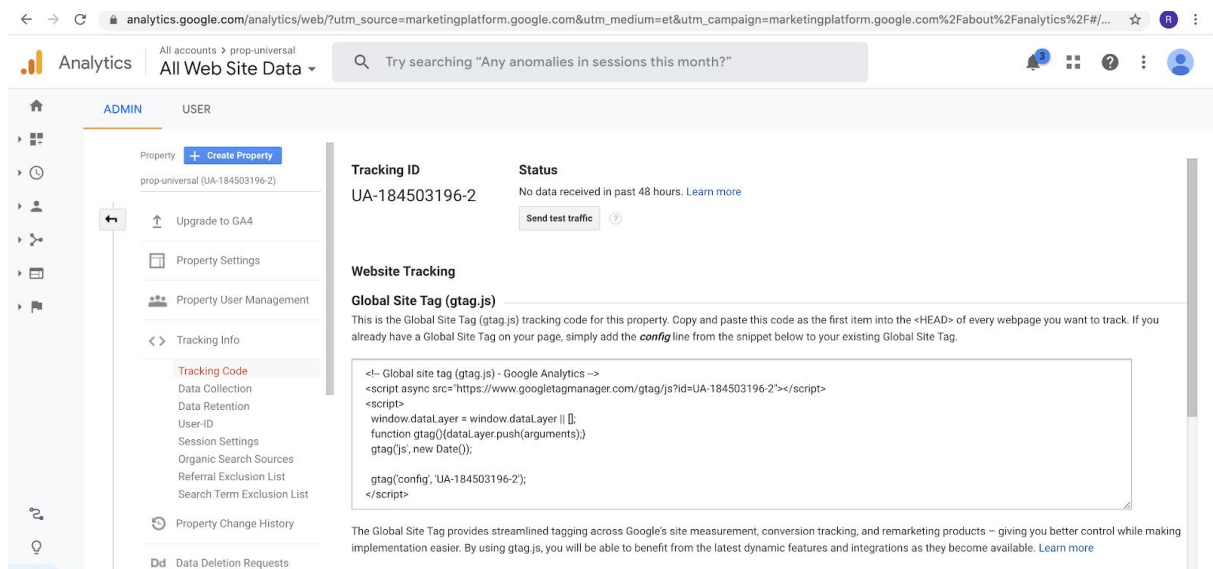


The google site tag (auto generated JS code) is put in all JSP files of the app to stream analytics data from browser to google analytic server.



Server Side Analytics

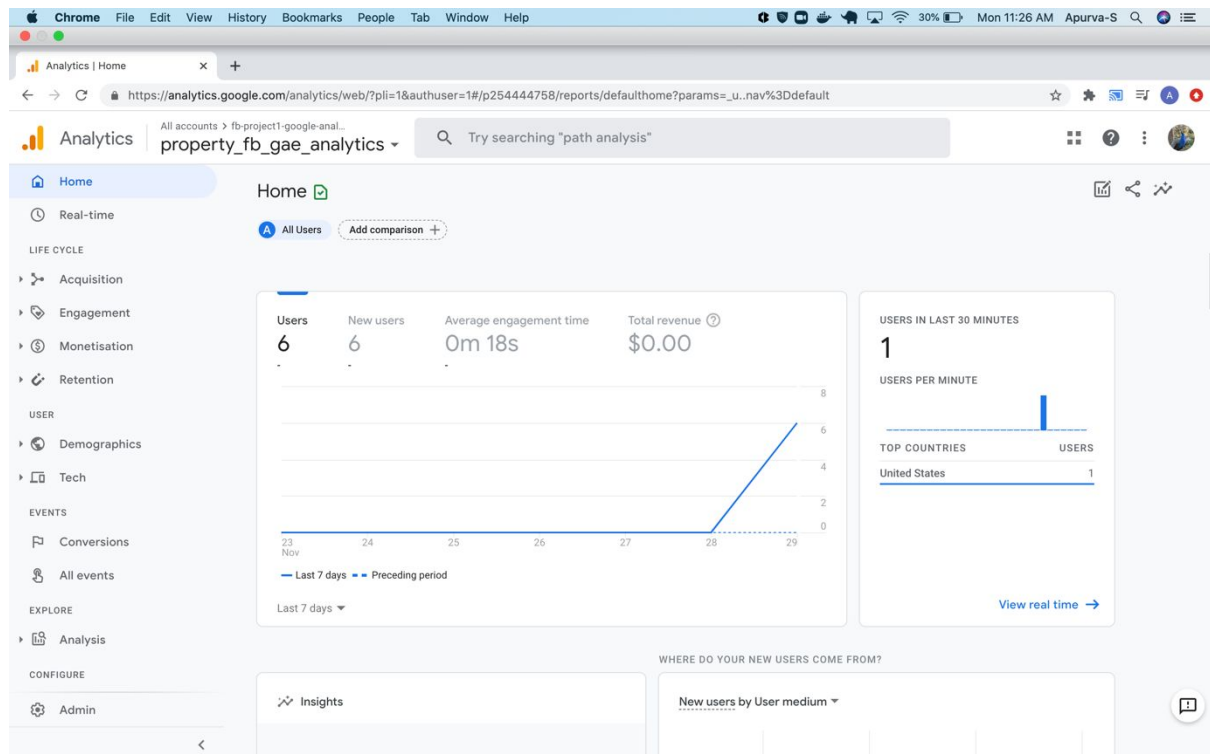
Created a tracking ID



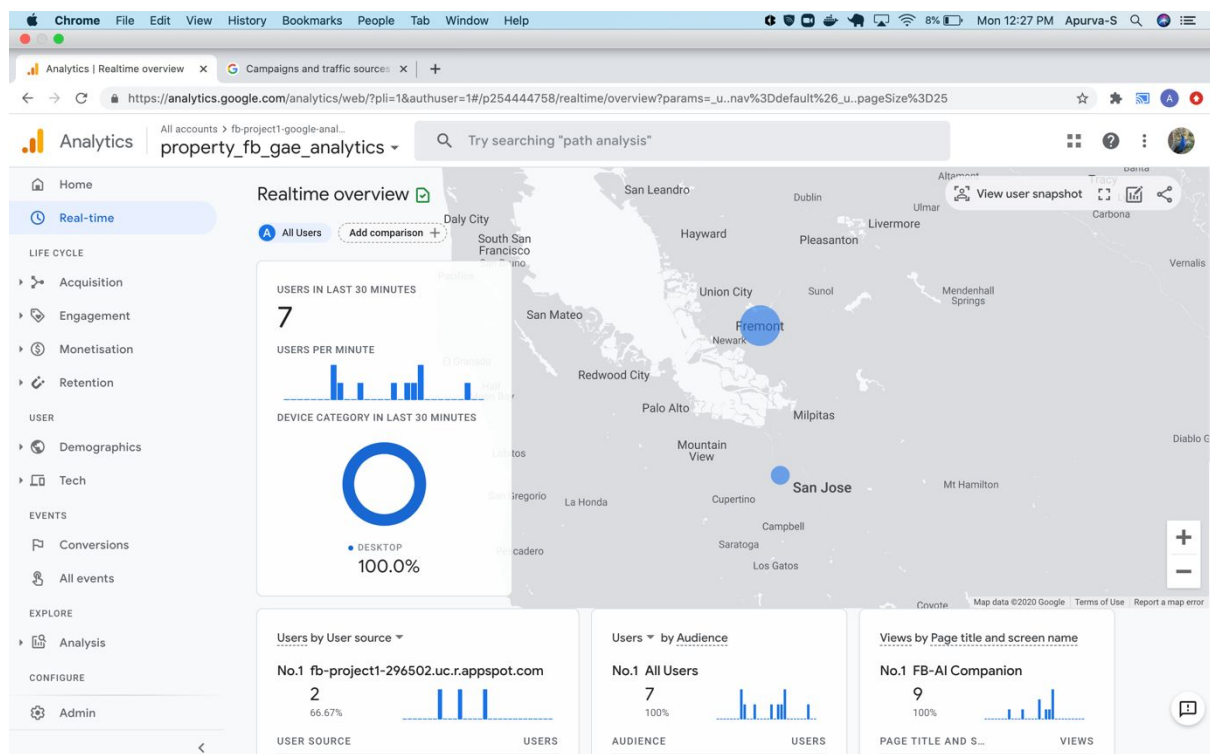
Added below java code from this google provided sample implementation:

<https://github.com/GoogleCloudPlatform/java-docs-samples/blob/master/appengine-java8/analytics/src/main/java/com/example/appengine/analytics/AnalyticsServlet.java>

Home page of Google Analytics showing users in last 30 mins:



1.1.a: metric 1- provide a graphs/plots/visualizations:



1.1.b: Interpret the metric 1's trends:

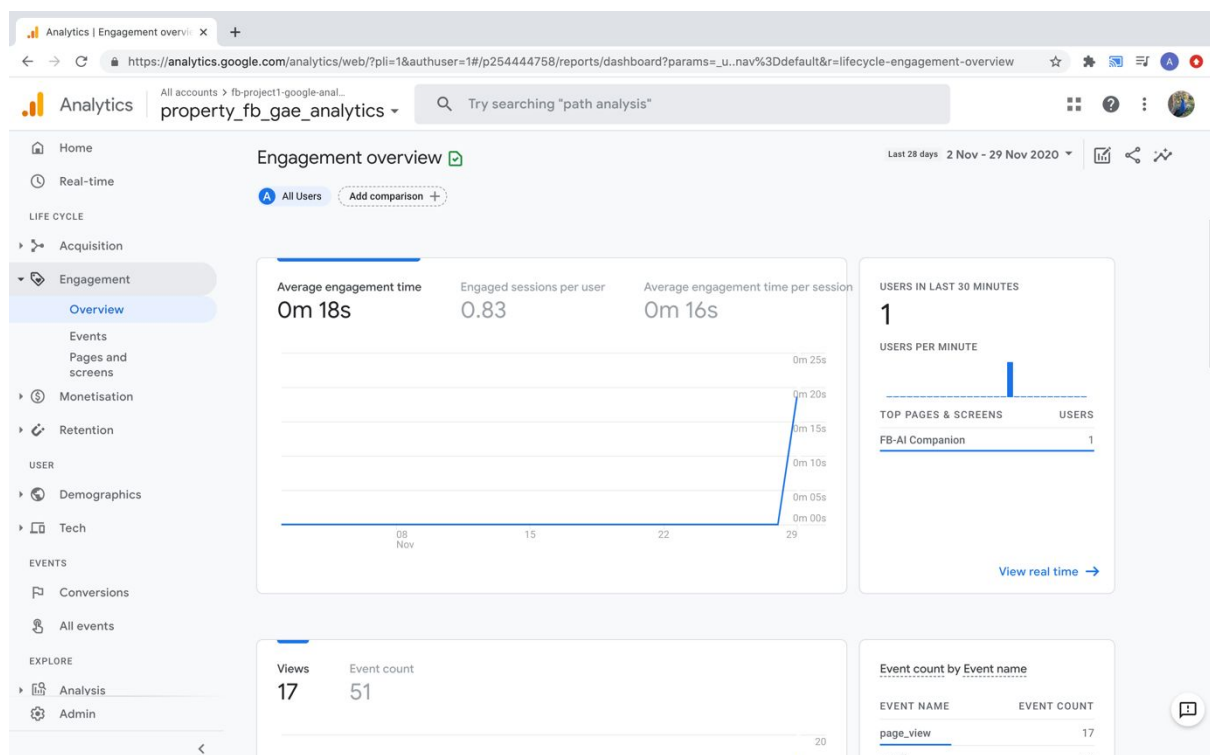
It shows the number of users accessing the url we created. It depends on the number of active users using it, User source with views by page title-screen name and on what kind of devices they are accessing such as mobile phones or desktop.

1.1.c: limitations of metric 1:

Google Analytics works by loading a snippet of javascript code on each page of a website. When the page is loaded, the code sends a long string of data back to the Google servers to be processed. Not all browsers allow javascript code to run. On top of that, Google Analytics uses cookies to track information from a user's browser. Cookies can be blocked by web browsers and ad blockers. With the limitations of javascript and cookies, not all users are tracked.

1.2.a: metric 2- provide a graphs/plots/visualizations:

Engagement Overview



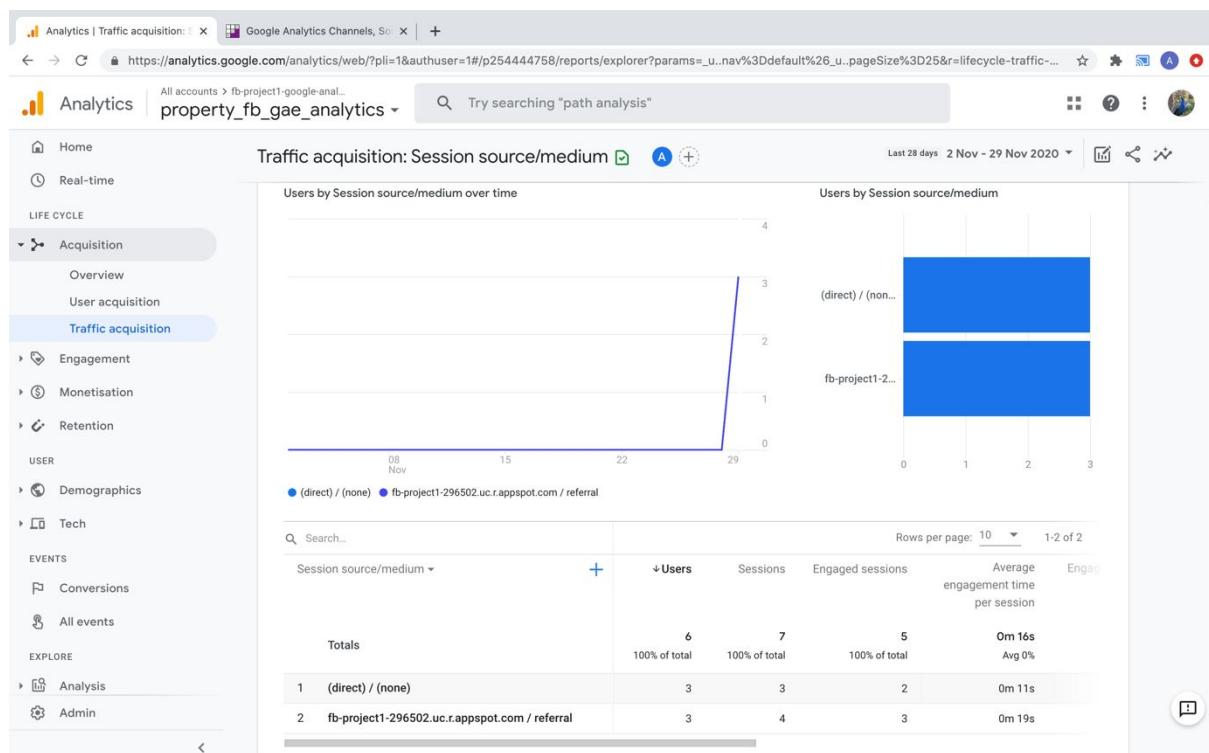
1.2.b: Interpret the metric 2's trends:

It measures how much time a group of visitors spend on a site (Visit Duration) or It measures the depth of pages visited while on the site by a group of visitors. This report can be useful if we would like to review a predetermined set of parameters for what defines engagement for our site, but lacks the ability to customize beyond the pre-set ranges.

1.2.c: limitations of metric 2:

Not a lot of advanced analysis that we can do with the information provided. While we can apply advanced segments to the report to view the engagement of segments of our website visitors, we cannot apply secondary dimensions, review goals, e-commerce, etc. as it applies to this report.

1.3.a: metric 3- provide a graphs/plots/visualizations:



1.3.b: Interpret the metric 3's trends:

Acquisition in Google analytics will tell which sources send high traffic and conversions. Since it discovers the sources of traffic, we can analyze in which channel our content works well and which source gives us high traffic (we can compare performance of our sources). The report helps you with the Acquisition, Behaviour, and Conversion analysis of how the website acquires users, their behavior on your website, and the path to their conversion. Source is the place where the traffic comes from, and Medium is a categorization of traffic sources, similar to the groupings we see in channels. For example, it could be a particular search engine, a certain website or blog on the internet, or a specific social media website.

1.2.c: limitations of metric 3:

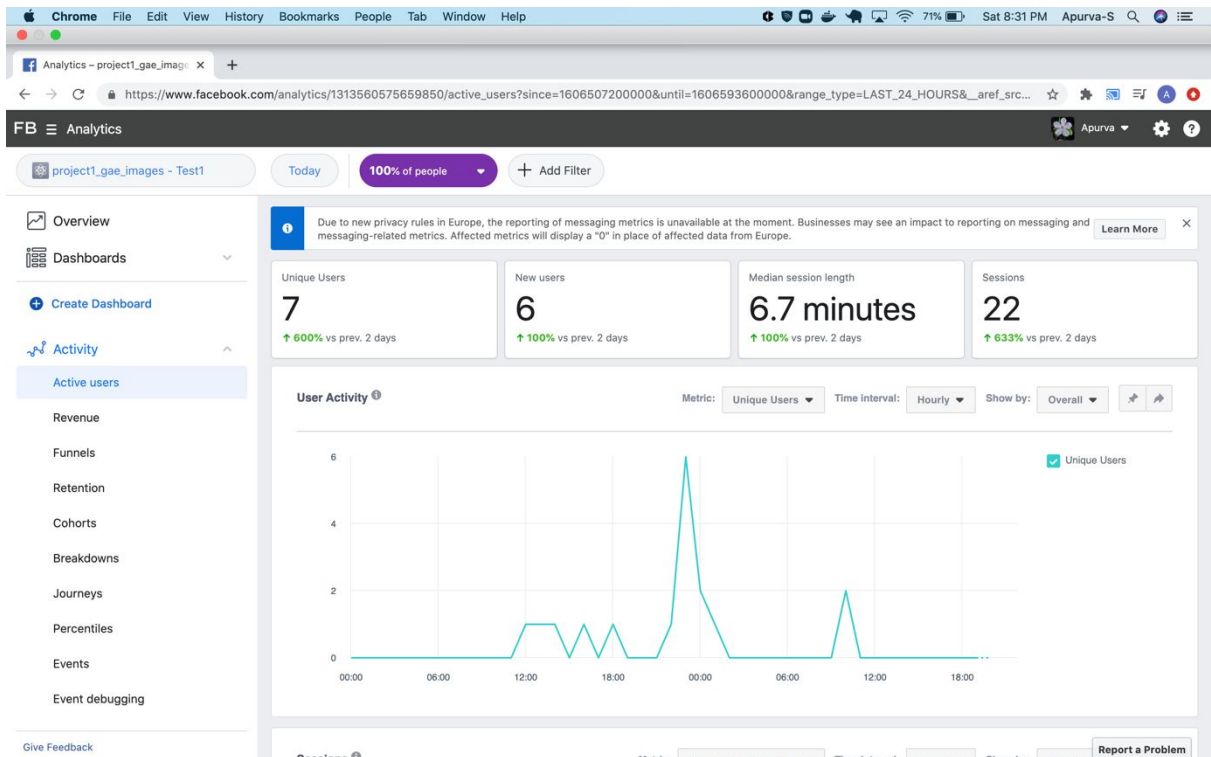
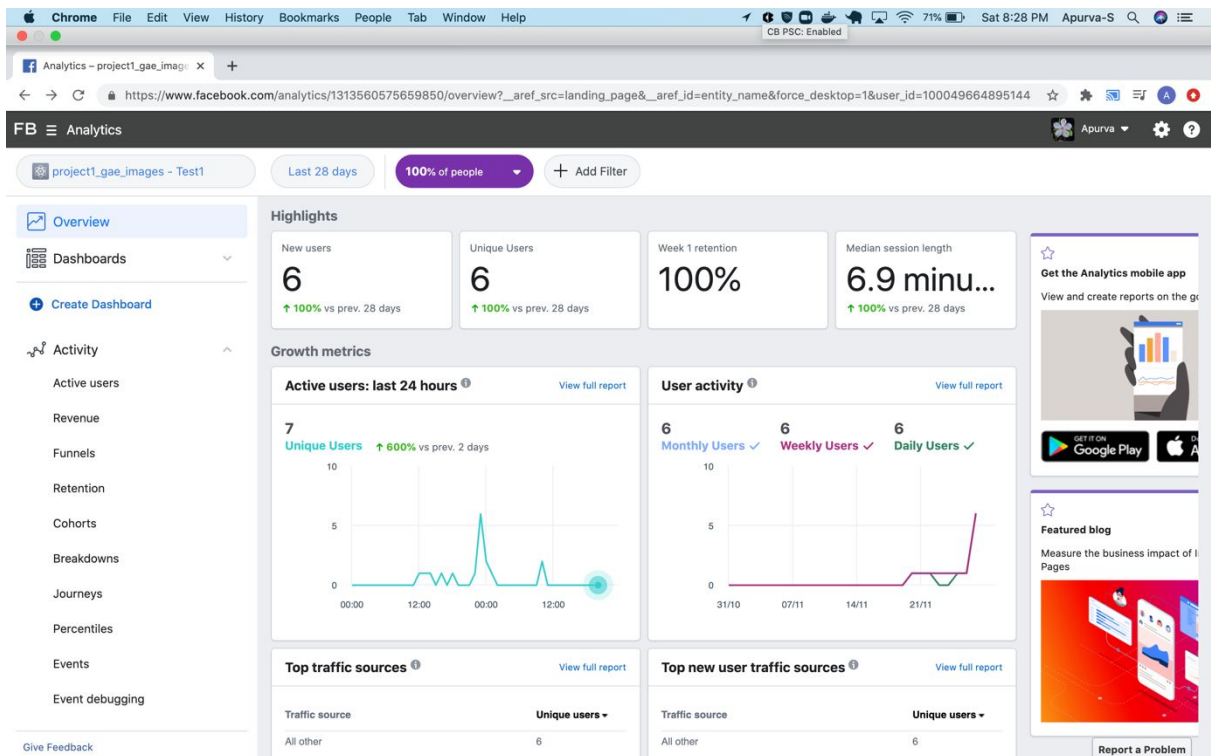
The time it displays that the user is spending is not very accurate and can create problems for analysis for companies relying on google analytics.

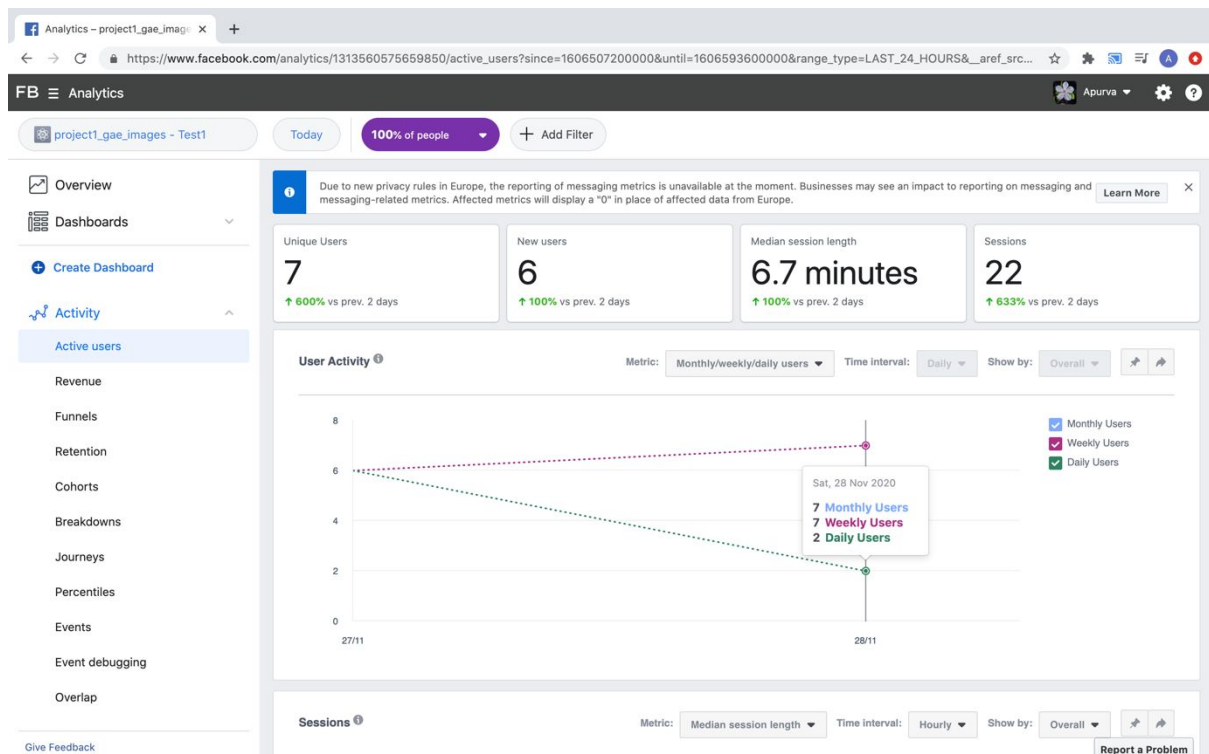
Section 2= Facebook Analytics

Facebook Analytics can be used to understand how people interact with our Facebook app, page or other supported event source. To access Facebook Analytics, you must be the admin of an event source. If you have implemented the Facebook SDK for JavaScript to use features such as Facebook Login, the Like Button, and Social Plugins, then you are already using Facebook Analytics.

2.1.a: metric 1- provide a graphs/plots/visualizations:

Growth Metrics





2.1.b: Interpret the metric 1's trends:

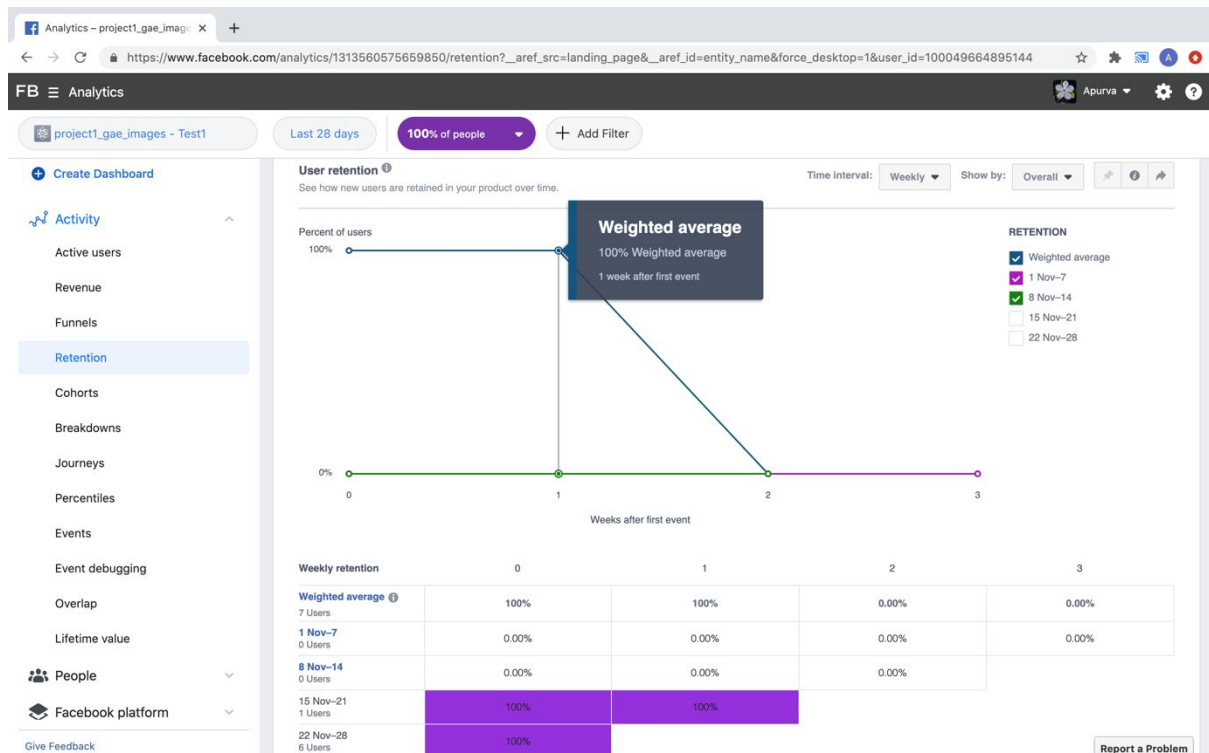
In the above graphs, we can see the growth metrics of our application. Facebook tracks how active our app users have been the last 24 hours. We can determine when our users are online and engaging with the content. From this data, we can easily determine the best time to post on Facebook for business. User Activity graph will show the number of users (in the past two days) who are currently using our app for any given day, week, or month.

2.1.c: limitations of metric 1:

No modification of data being displayed and no yearly users shown. With this metric we can get an idea about the unique users who are using this app the most. But we cannot predict that there would be a high number of generic users at that same time on a consistent basis.

2.2.a: metric 2- provide a graphs/plots/visualizations:

User Retention



2.2.b: Interpret the metric 2's trends:

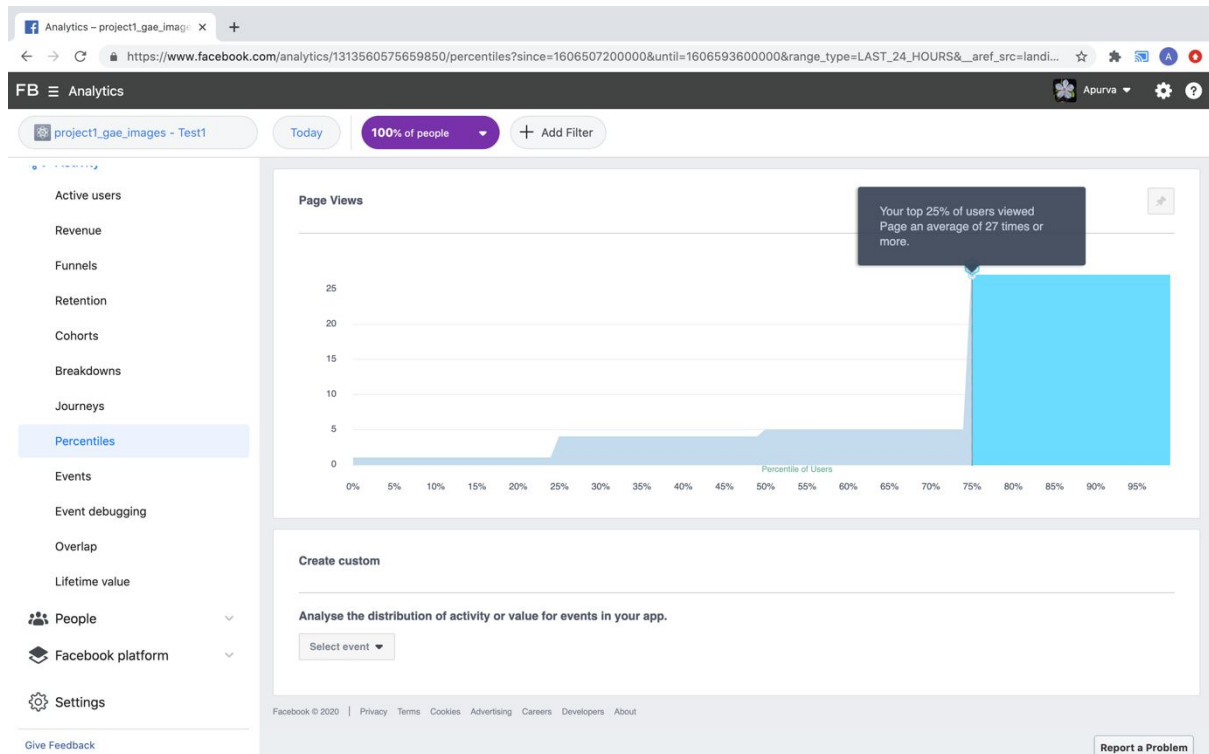
Retention refers to the amount of time viewers spend watching the content we publish to our app. The User Retention metric shows the percentage of people who return to our application after initial interaction. An initial interaction can be the first web view for a website, an app install or the first Page view for a Page. Retention can be viewed in daily, week or monthly intervals.

2.2.c: limitations of metric 2:

It is not providing any lead to reasons for lower retention rates. This metric shows the average time spent on the product but it's not specific to which page or feature of our application.

2.3.a: metric 3- provide a graphs/plots/visualizations:

Percentiles



2.3.b: Interpret the metric 3's trends:

The Percentiles report allows us to see which groups of visitors to our app are the most active. When we click Percentiles in the left sidebar, we should see percentiles for Page Views by default. According to Facebook, the above report shows the distribution of people who have viewed a page on our app, where X is the percentile of users and Y is the number of page views. We can see that 25% of users viewed page an average of 27 times.

2.3.c: limitations of metric 3:

It is not providing more detailed analysis of the application pages like URLs or paths etc. Those features if added on to the metric could help us in further improvements of the application.

section 3: Compare Google & Facebook analytics

- Basically, Google analytics is more customizable but more difficult to use than Facebook Analytics.
- Facebook Analytics also uses "user" tracking based on users logged into Facebook's platform while Google Analytics uses cookies to track users across the internet.
- One great part about Facebook's analytics is that it can track users across devices much more easily. So if your customers move from a mobile phone to a tablet to a desktop you will easily be able to track them across the web.
- One of the downsides of this user tracking is that it is not available on sites that do not have any type of face-book tracking code on them. While this could be a problem, as more people adopt this tracking code, a larger percentage of the net is covered by Facebook's codes.
- Google's analytics platform on the other hand can track cookies across any site as this web technology is independent of Google's platform and is therefore operational on nearly all websites.