Project 1 Analytics Report

Submitted by Group-1, Members:

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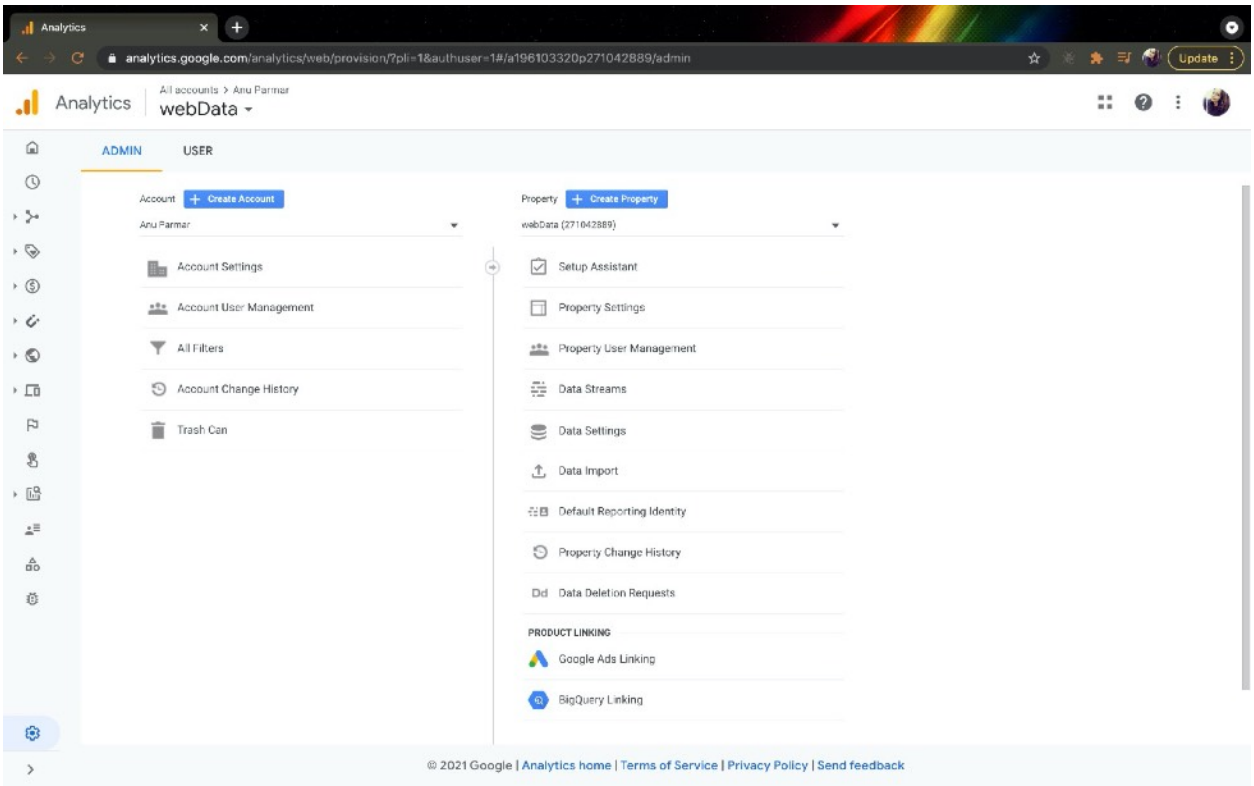
Section 1: Google Analytics

There are two different kind of setup we have done to set up client and server side analytics. Client side we have to set up an admin account and integrate our app. Whereas for the server side the standard code we have to add in our code.

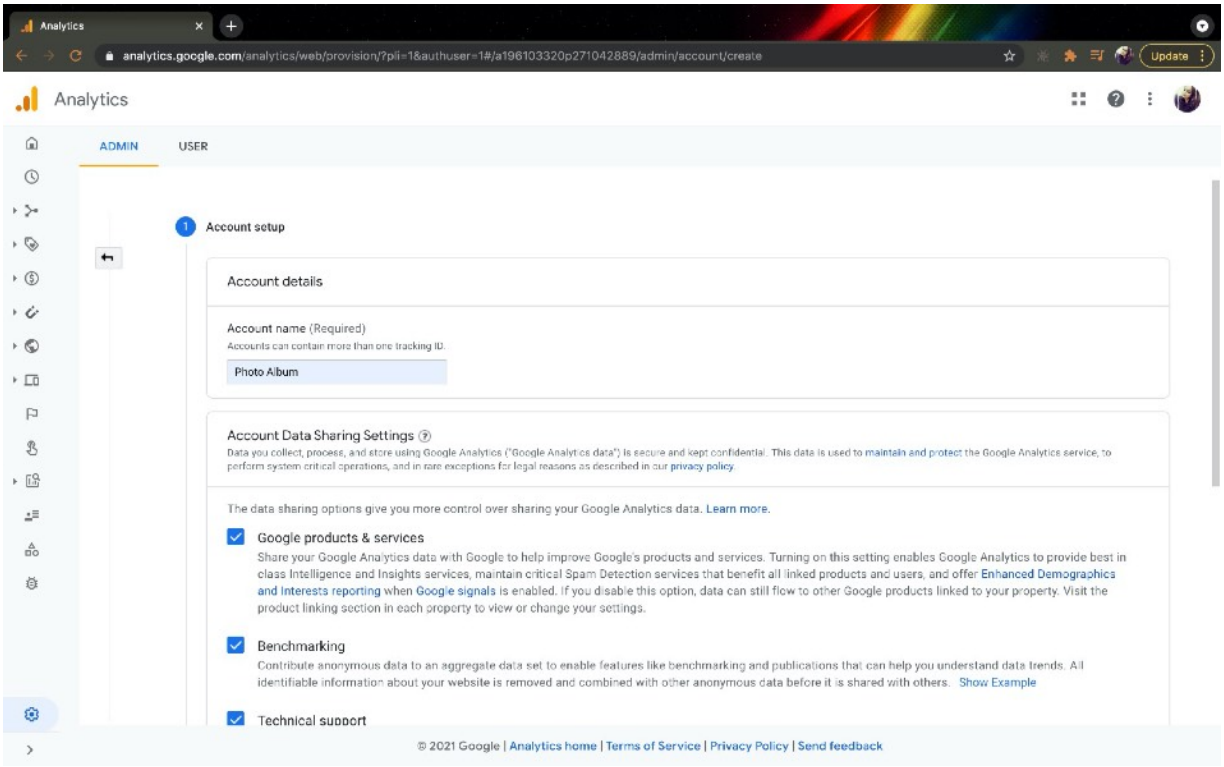
Google Analytics: Client-side implementation:

The following steps shows the step by step **client side analytics setup**:

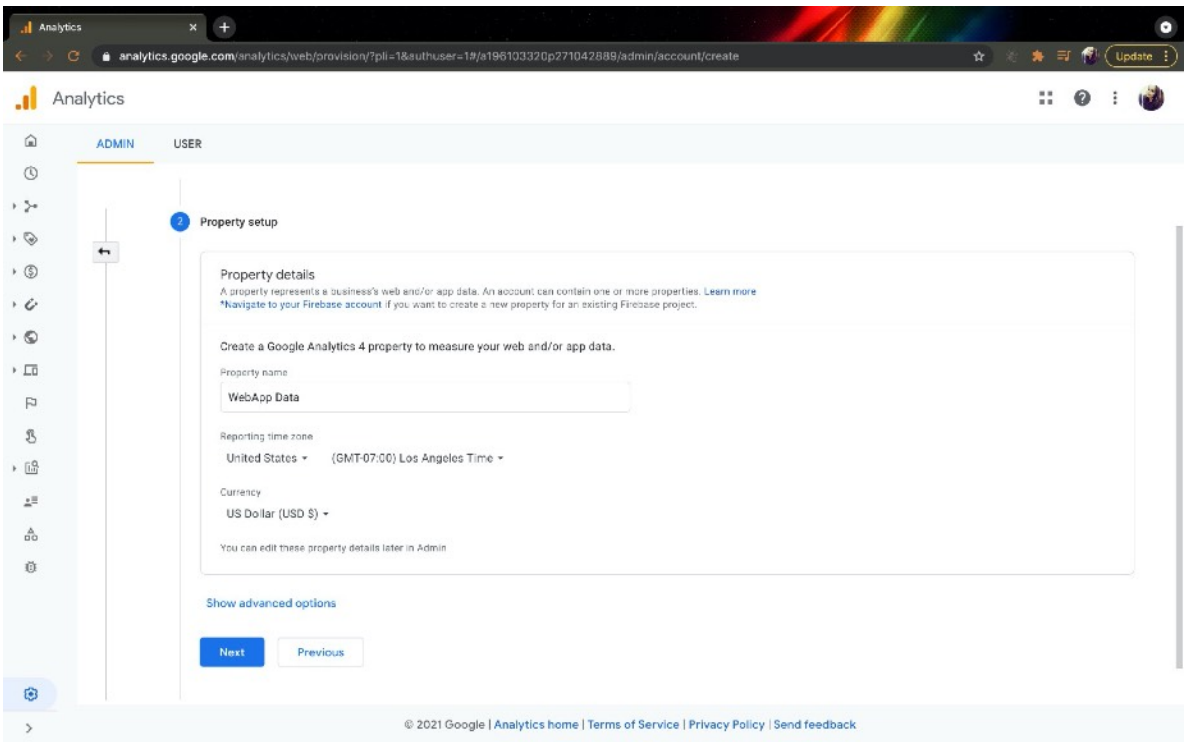
Step 1: Sign into the analytics account using the url: analytics.google.com:



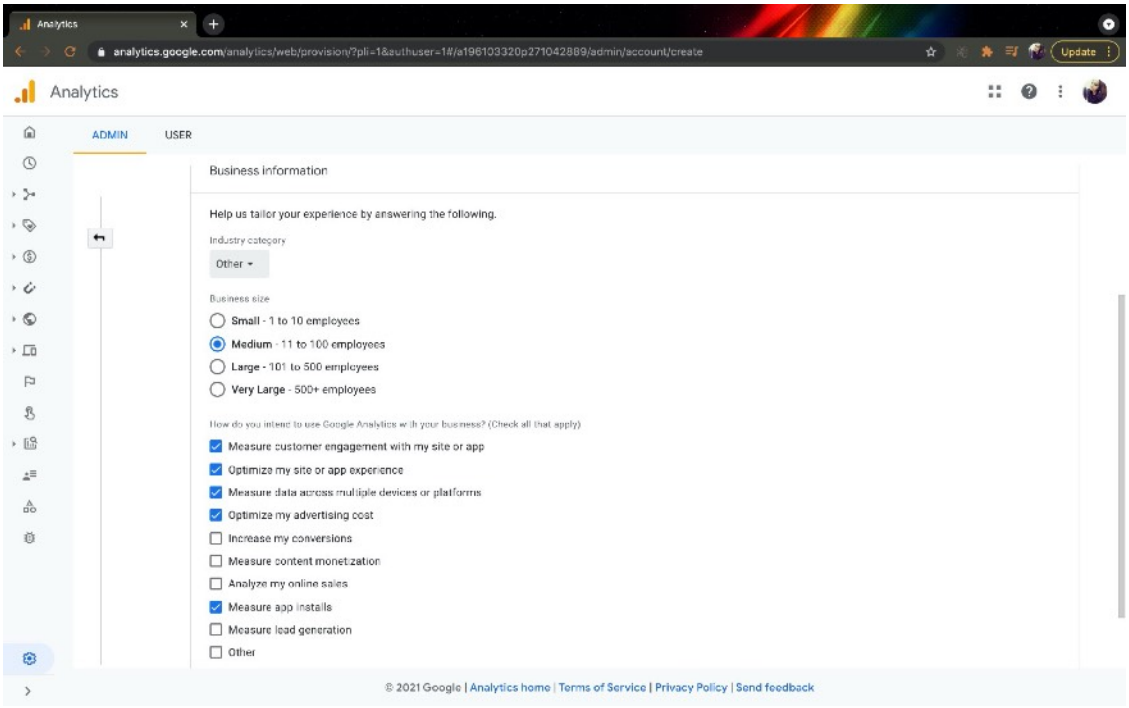
Step 2 : Create an Admin:



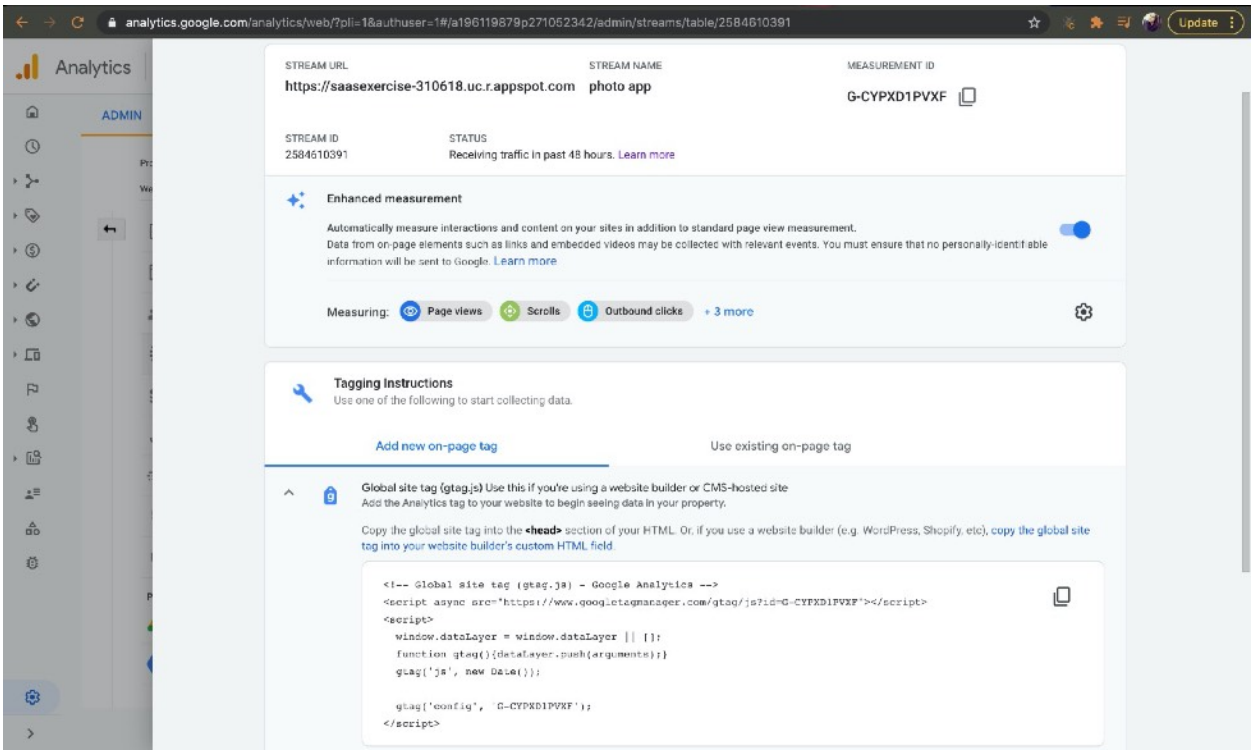
Step 3: Fill in the property details :



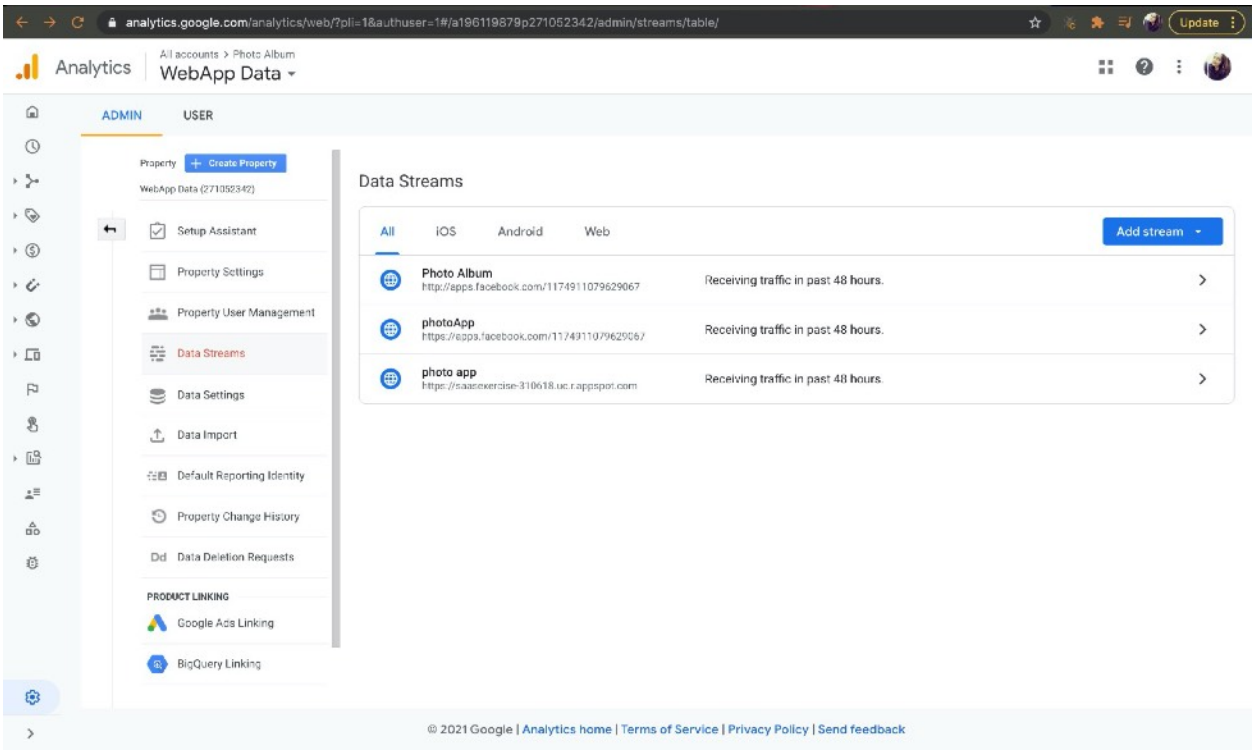
Step 4: Choose the business information for web application:



Step 5: Fill in the website name and for the website url- inserted our facebook application URL. After the setup, website tracking information can be seen in tracking code under admin, like tracking id and the piece of code should be added in all our .jsp pages. The tracking id is the one which links application to analytics account:



Step 6: After connection, we will be able to see our application under an analytics account:



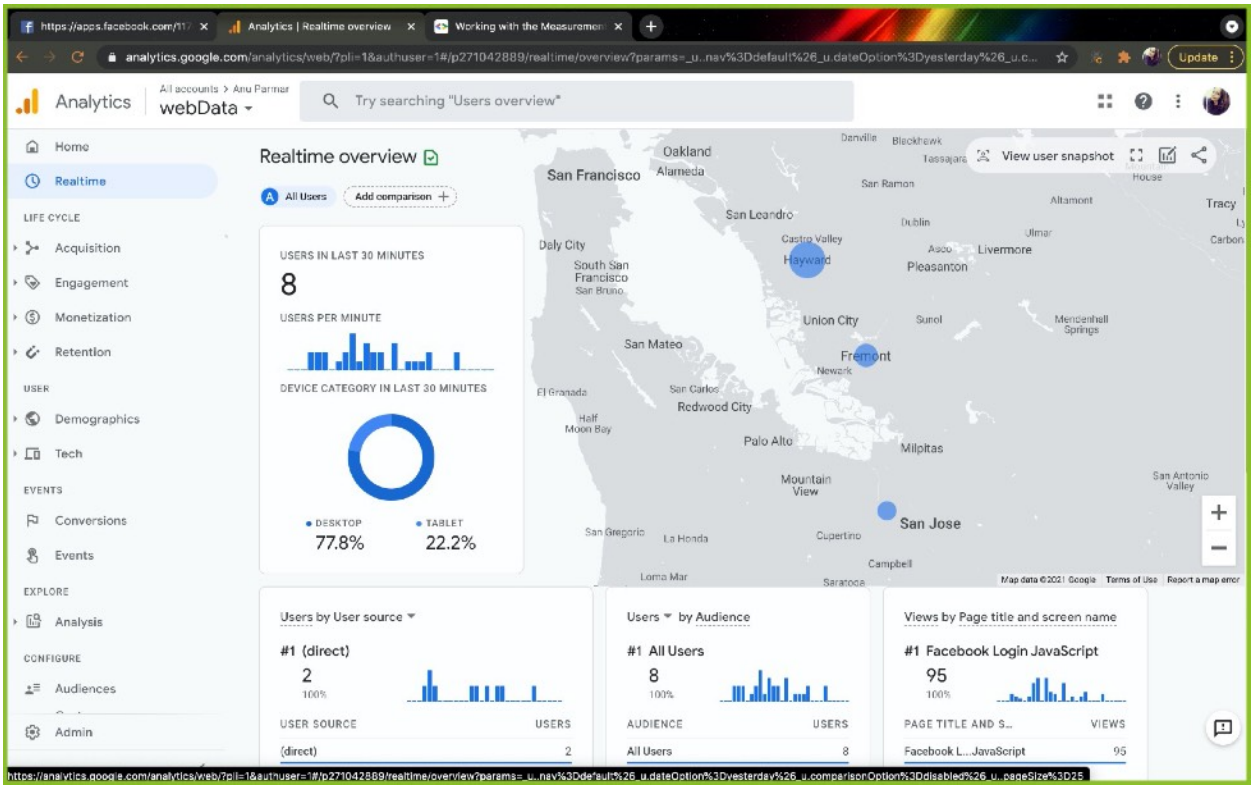
Google Analytics: Server-side implementation:

Create src/main/java/com/google/appengine/analytics/tracking/ in the project and now create a java class file with name GoogleAnalyticsTracking copy and paste the code present in the link below.

https://github.com/anu123p/SAASExercise/tree/main/src/main/java/com/google/appengine/analytics/tracking

Metric 1: Realtime->content

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



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

This metric provides below information

- Number of active users at the point of time - In our case, there were 8 active users using our application.
- Device category specifying type of devices used by the user while logging into our web application. We have Desktop and Tablet
- Location of User which shows particular location from where our web application is being accessed. In our case we can see three locations: Hayward, Fremont & San Jose.
- Name of the active pages with their page title with number of pageviews for each page in the last 30 mins from that point of time.

The above information provides a number of active users using our application along with the active pages with a number of hits. It also provides information on active pages on our facebook app for the last 30 mins with their page titles and number of hits per each page.

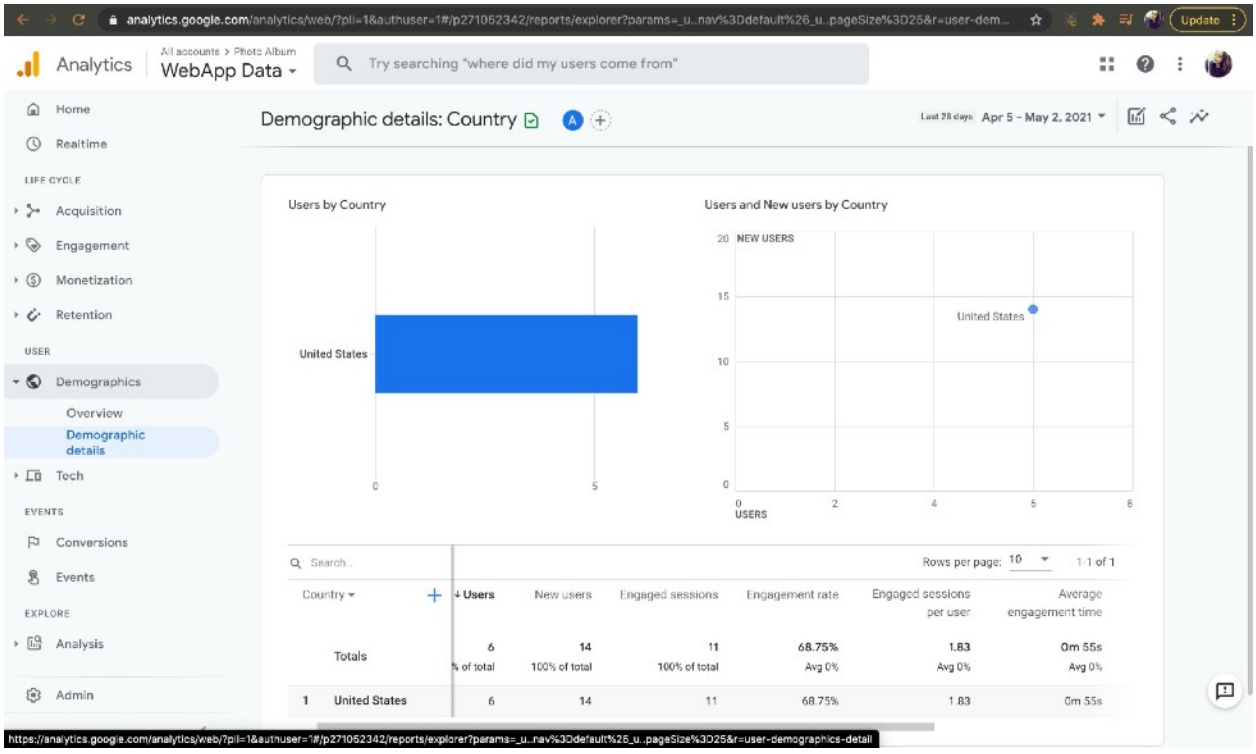
All this information is useful for a developer to understand what are the pages that are being viewed most and at what time.

1.1.c: limitations of metric

When there are many active users and hitting multiple pages tracking information is hard as it keeps on updating. Real time is limited to only page view options.

Metric 2: Demographic->Demographic Details-> country

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



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

This metric provides information about users based upon their geographic locations. This metric provide following information based upon country in our case USA.

- Users: This shows the total number of users active at that time. For this our application is showing 6 users.
- New Users: This shows the total number of new users active at that time. For this our application is showing 14 users.
- Engaged Sessions: It shows the total number of sessions active at that point of time. The number of **sessions** that lasted 10 seconds or longer, or had 1 or more conversion events or 2 or more page views. In our case it shows there are around 11 sessions within USA.
- Engagement rate: It shows the percentage of engaged sessions. In our case the engagement rate is 68.75%.
- Engaged sessions per user: It shows the average number of engaged sessions per user by dividing: engaged sessions / users. In our case it is around 1.83.
- Average Engagement time: Average Engagement time measures the average time users are interacting with your site and is calculated by dividing the duration of all sessions by the number of sessions. In our case it is around 0m 55s.

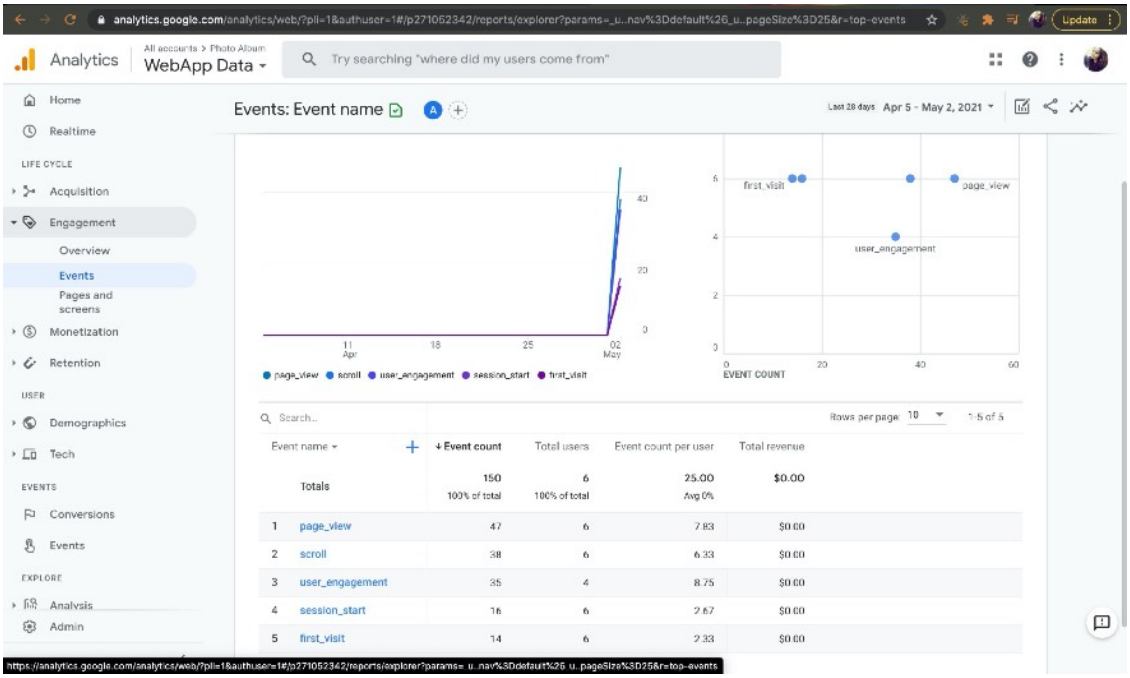
The above information is used in our facebook app to understand the new user and active user by using the metrics provided. This metric is generally helpful to understand new users and active users for their site by using the above values. It gives the speculation of how users use the application timely, and in which time more number traffics can be occurred.

1.2.c: limitations of metric 2

Demographics 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 information if the DoubleClick cookie or the Device Advertising ID is not present, or if no activity profile is included.

Metric 3 : Engagement-> Events -> Event name

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



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

The above metric depicts how long the user is using our application. The bar graph above provides the below information.

- page_view: This metric shows the number of times an app screen or a web page was viewed. Repeated views of a single page or screen are counted. For our application this is 47.
- scroll: This metric show the number of unique users that scrolled 90% of the depth of the page at least once. For this there are about 38 scrolls.
- user_engagement: This metric shows average engagement time of new users. For this we have around 35
- session start: This metrics is when a user engages the app for more than the minimum session duration after a period of inactivity that exceeds the session timeout duration. There are 16 session_start for our application.
- first_visit: This metrics says the first time a user visits a website or launches an Android instant app with Analytics enabled. There are 14 first_visit for our application.

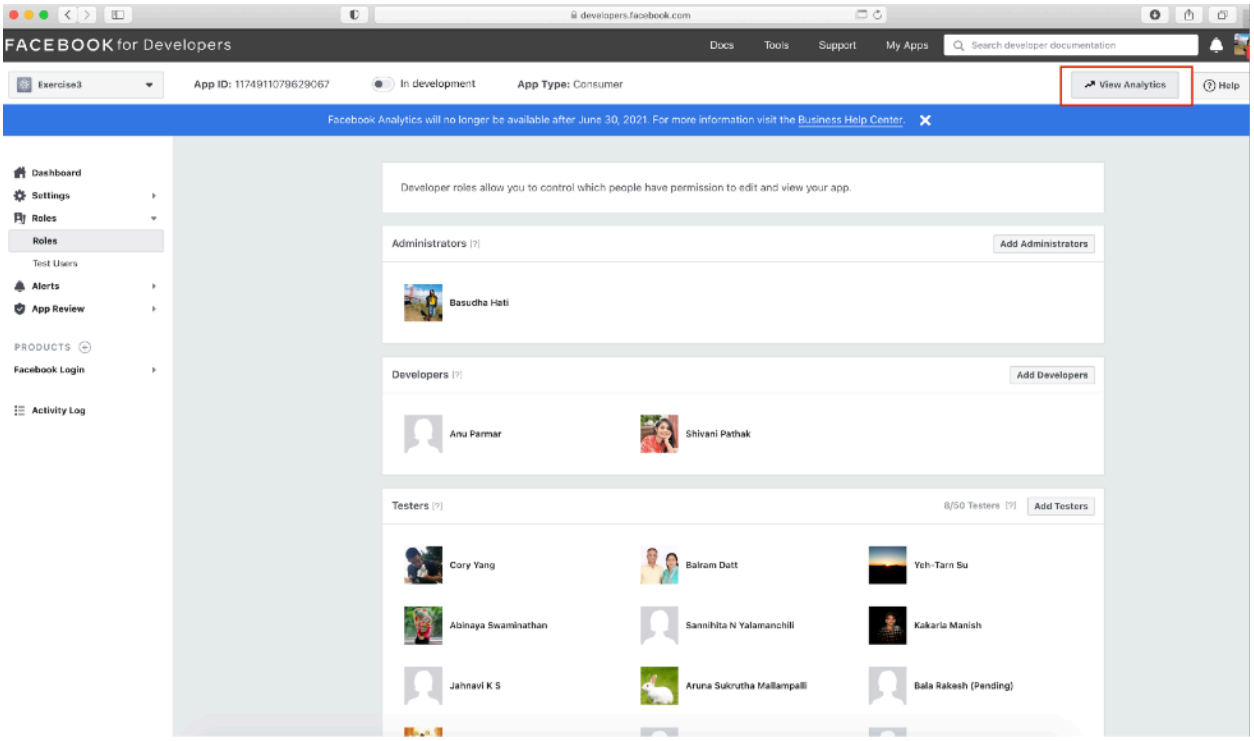
1.3.c: limitations of metric 3:

This metric gives an idea on the number of sessions in the duration but it did not specifically mention on what page did the user spend time on. Specific information in timely manners can be viewed.

Section 2: Facebook Analytics

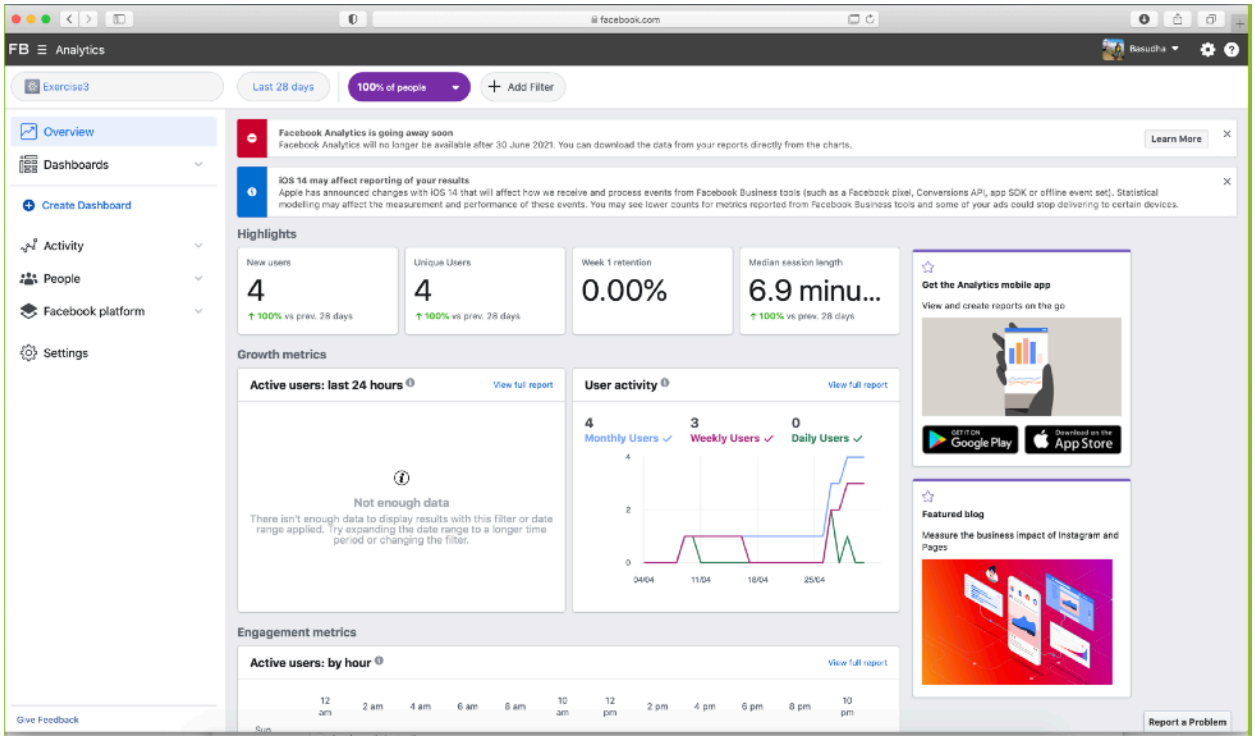
Facebook Analytics is based on people-centric tracking principles that can enrich existing data with aggregated and anonymized data on Facebook users, revealing valuable insights that will help business to grow. Facebook Analytics turns all of the goals into standard or custom conversion events. Analytics gives a tons of valuable information that can help to track and measure the results so that businesses can refine their strategy and measure their return on investment. Facebook developers account has an easy step of analytics and the option directly can be viewed in application developer account.

Exercise3-> View Analytics button on the top right corner



*Please note: Facebook is deprecating Facebook Analytics on June 30, 2021. They've recommended that users switch to Facebook Business Suite (if available), Ads Manager and/or Events Manager moving forward to track the performance of their Facebook posts.

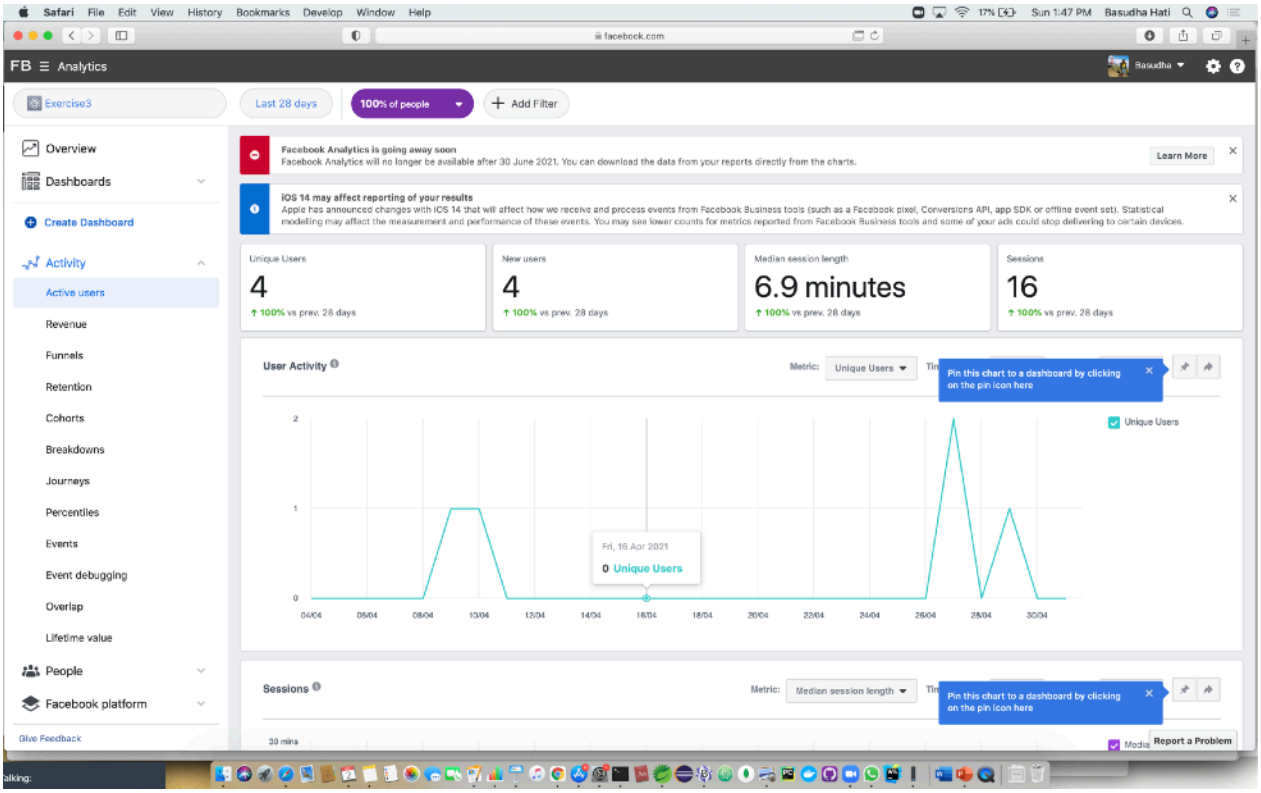
Once we click on to the **View Analytics** tab, it shows the overview of the application as shown below:



Metric 1- Growth Metrics-> Active Users : Last 7 days->Unique User

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

Unique user—Last 7 days



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

The view of this chart shows the number of unique users, also known as active users, who are using our facebook application. This metric helps us to understand at what time period in a day/week/month are people using our application at maximum. Active users are the number of unique users who use your event source (example: app, website, Messenger bot). When unique users can't be determined, unique devices or cookies are used instead.

User Activity:

If a developer is using Facebook Analytics for a single channel, User Activity represents the number of times the corresponding event for the channel listed above was completed by active users. For example, if one use Facebook Analytics only for a website, User Activity represents the number of page views (calling the logPageView method).

If a developer using Facebook Analytics across multiple channels, User Activity represents the sum of the number of times the corresponding events for the channels listed above were completed by active users. For example, if one use Facebook Analytics for both the website and its corresponding iOS app, User Activity represents the sum of the number of page views (calling the logPageView method) and the number of times someone used the iOS app (calling the activateApp method).

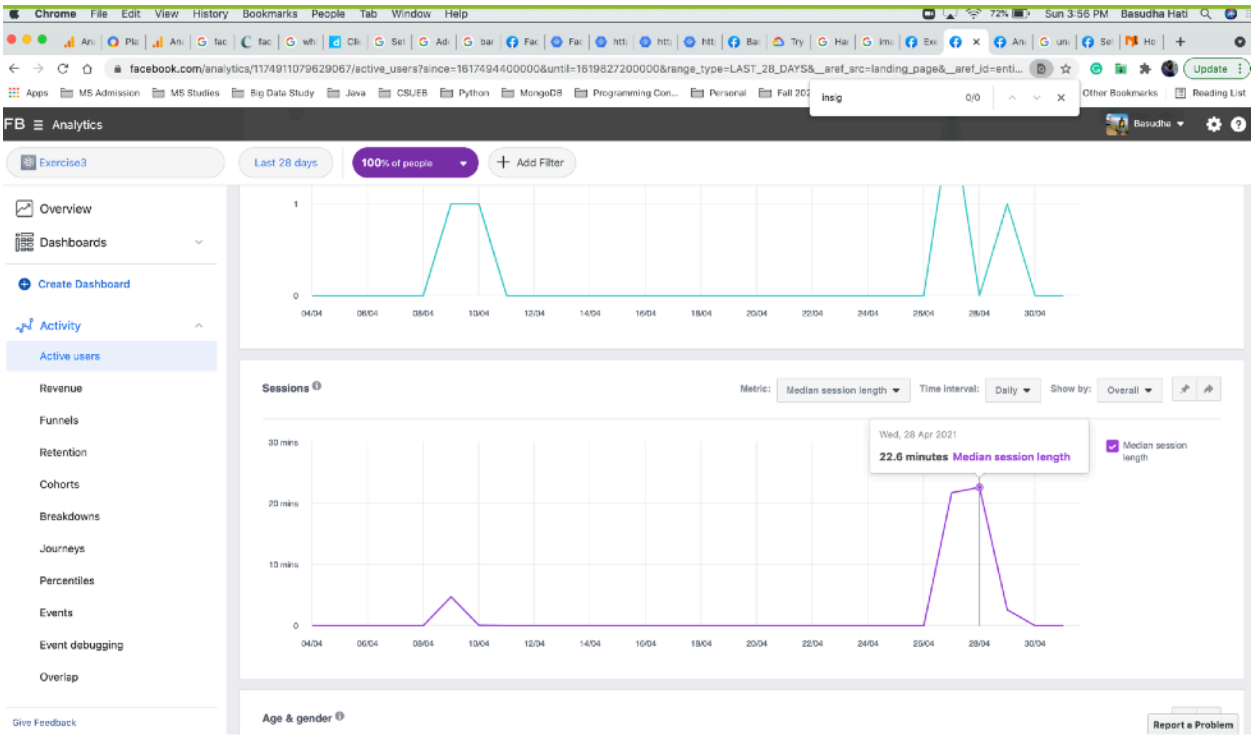
2.1.c: limitations of metric 1:

This metric provide knowledge about the time range unique users are using this app the most. But it cannot predict that there would be a high number of generic users at some point in the future. For example to understand how fast the app is growing, one decide to measure the number of daily active users. The definition of “active” is the **measurement of user activity** of anyone who has logged in on a given day. The danger of defining your “active user” by a minimal metric like logins is that one is just seeing a reflection of press and hype. It doesn’t measure real usage of the app. People are downloading their app and logging in, but most of them aren’t really using it the way it’s meant to be used. Thus it does not provide real usage of data.

Metric 2- Sessions->Metric : Median Session Length:

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

Median Session Length



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

Shows the median amount of time unique users spend on our application per session. Session length is calculated by taking the time of the last event logged in a session and subtracting the time of the first event logged in the session. For our application, the highest average session lasted for 22.6.8 minutes at April 28th, 2021.

This metric is useful to understand the time that users are spending on our app each time they visit our app. It helps us to know how much time users are spending time on being on our application. Helps to enhance our application with adding other features to attract users to use our application.

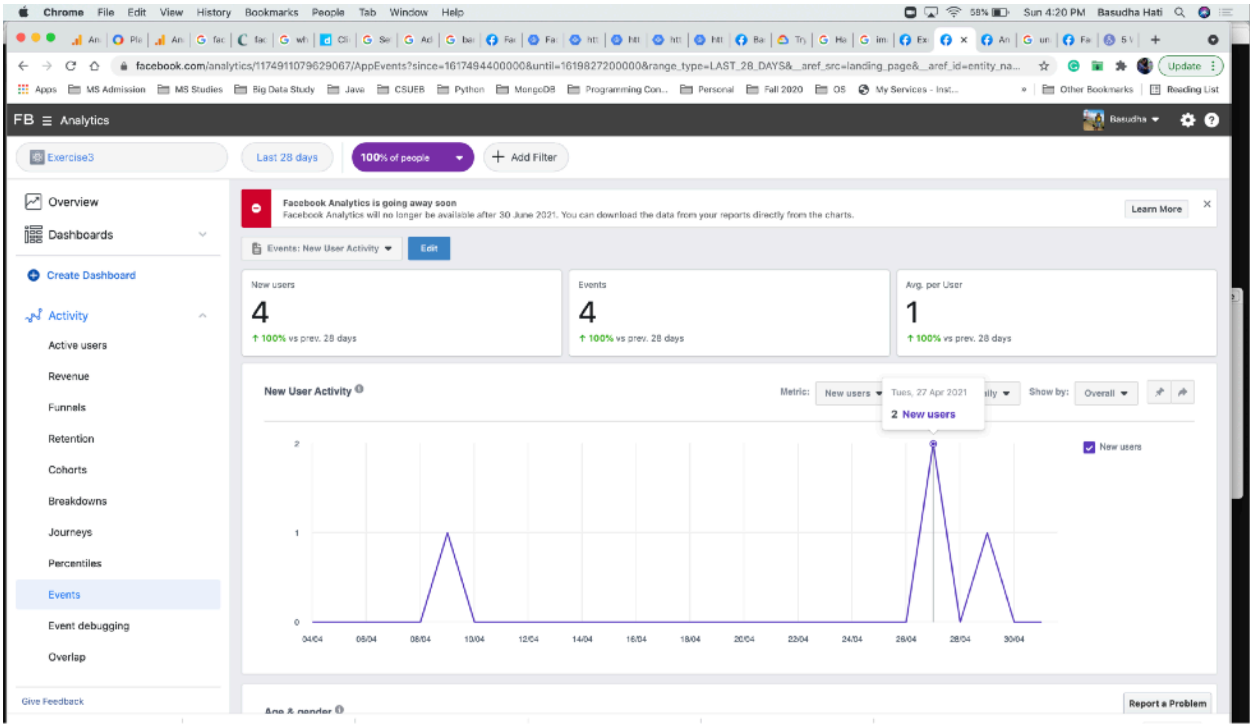
2.2.c: limitations of metric 2:

This metric shows the average time spent on the product but it's not specific to which page or feature of our application. The in-depth feature to know session has average users to login.

Metric 2- Sessions->Metric : New Users:

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

New Users



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

An event that is used to track the first activity of new users on various channels. New Users is the number of people performing the New User Activity event. New users are the number of unique users who use your event source (example: app, website or Messenger bot) or business asset group for the first time: If one view a single channel or event source in Facebook Analytics, New User Activity represents the number of new users. For our web application it shows there were 2 new users on April 27th, 2021.

If one view a single channel or event source in Facebook Analytics, New User Activity represents the number of new users.

If one view Facebook Analytics across multiple channels, New User Activity represents the total number of unique new users across all channels.

2.3.c: limitations of metric 3:

Someone may also be considered a new user under the following circumstances:

- When they clear the cookies on their web browser before they view a website, even if they may have viewed that website before.
- When they interact with an event source or business asset group after a period of inactivity greater than 2 years.

3: Compare Google Analytics with Facebook Analytics

Facebook Analytics allows to measure, understand, and optimize the interactions people have with the business across both devices and channels to help drive meaningful growth. With over 2 billion people on Facebook, Facebook analytics solution provides rich, unique audience insights, powerful reports like conversion funnels and retention curves, and automated insights.

Google Analytics can track the user or consumer journey, providing rich data around channels used, locations, and devices. These journeys can then be tracked through to on-site activity, goals achieved, and exit point, as well as returning visitors, which indicates loyalty.

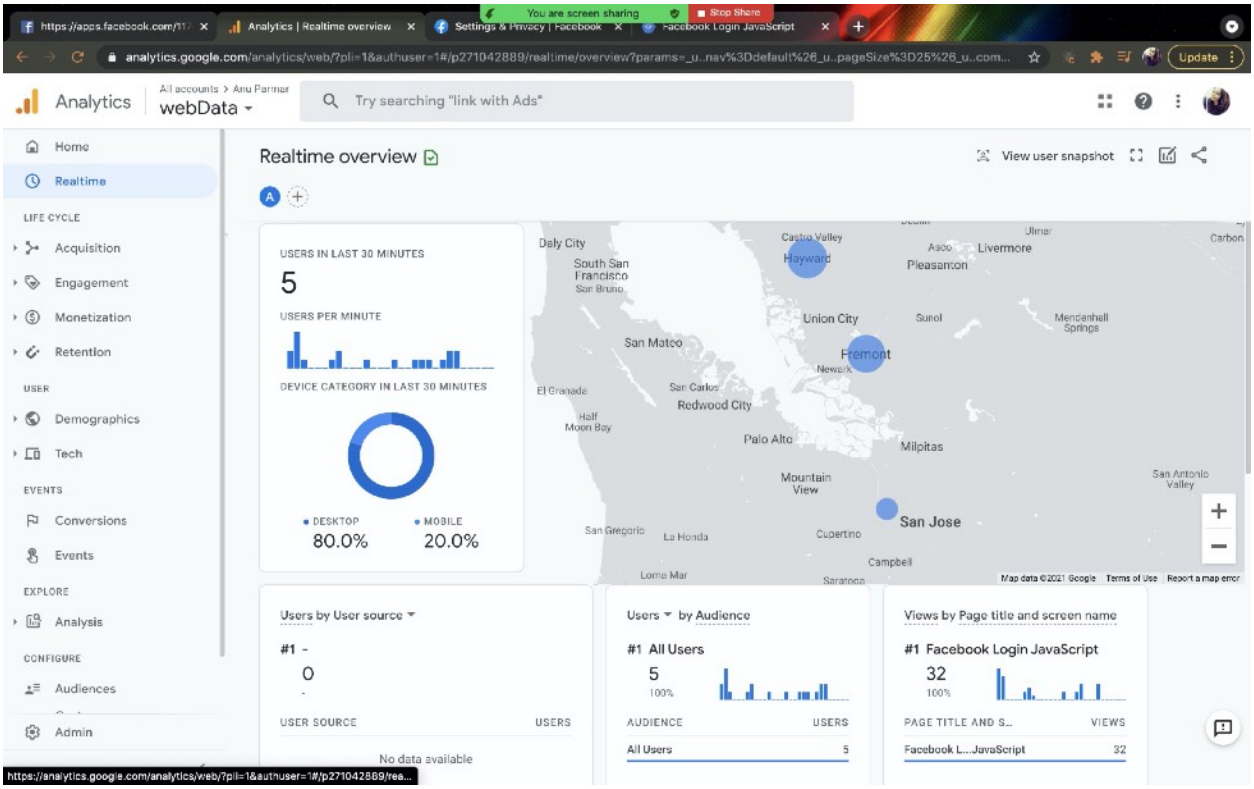
There is no definitive answer for whether Google Analytics are better than Facebook Analytics. Google Analytics is great at tracking devices, but not necessarily the person behind them. For example, when I visit a website on my phone and again on my desktop computer, Google Analytics sees me as two different users. Because mobile ads accounted for a huge percentage of Facebook's ad revenue showing a vast majority of traffic coming from Facebook is on a mobile device. Facebook Analytics is able to stitch together who you are by using your Facebook login and enriching your profile with activities from other third-party data. More importantly, Facebook Analytics focuses on people, rather than cookies, sessions, or devices.

On the other hand Google Analytics is much more than just a tool. There is so much more data available outside of Google Analytics and they are connecting so much more to it. There are Google Tag Manager, Data Studio, Google Optimize so all these different tools really feed into the whole ecosystem that Google has built with their analytics suite. And maybe that will keep us locked-in to the analytics suite. Therefore we should be using both the tools at the same time. It just gives you a different tracking and different database at the end.

Google Analytics is still the most robust platform. It offers more data, more conversion tracking, and an overall larger view. One must use Google Analytics to complete the picture of how Facebook traffic drives your business goals. Whereas Facebook Analytics is currently better at tracking user journey through multiple sources, or as they say “omni channel.” Because one can connect to pixels, Facebook page, Messenger, apps, and even things such as Google UTM parameters, one can connect the pieces in a way Google doesn’t allow yet. It also addresses a bunch of the “dark social” tracking problems we see more and more frequently.

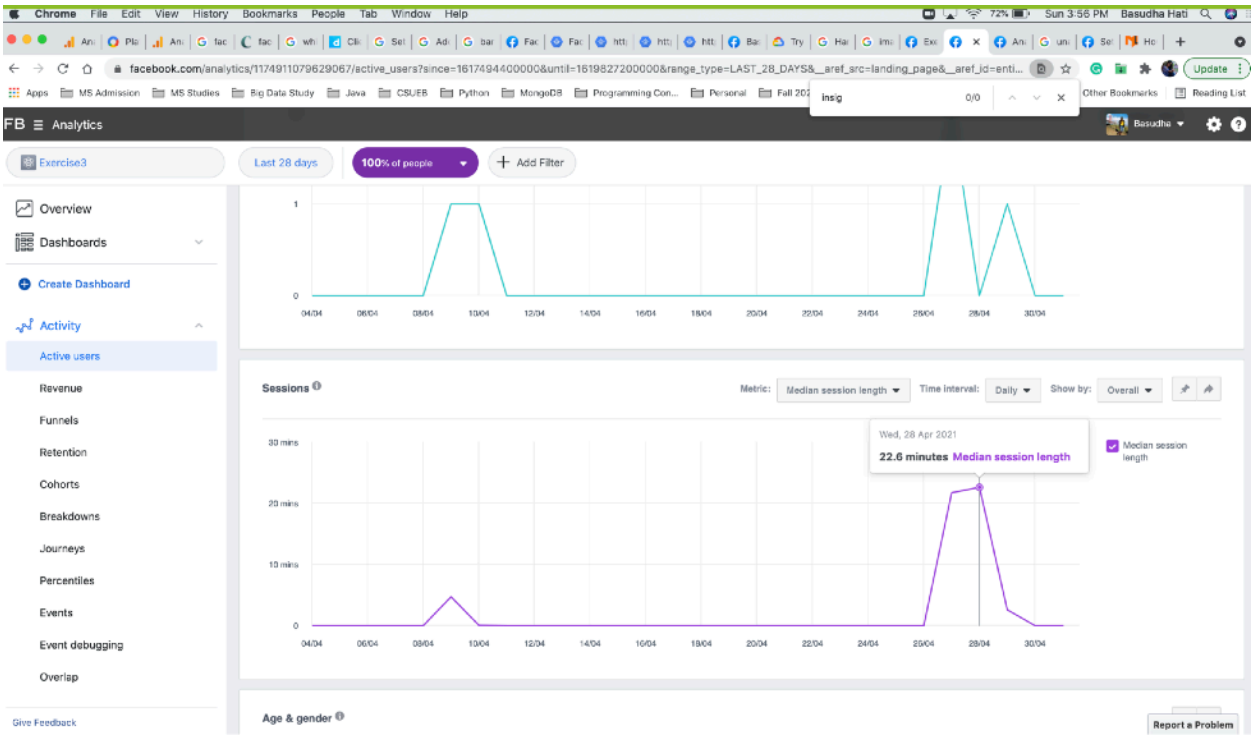
Favorite metric in Google Analytics : Realtime-> Locations

This metric gives the cities of users, derived from IP addresses. Additionally we can also know the users Geo location based on the countries of website users, the region of users and Latitude, Longitude. We actually knew which part of cities interested in using our application. Well in future this can be used to enhance the interest of people's mindsets of cities to grab more number of users to hit our application. In this screenshot we can see three different locations from where our application has been logged int.



Favorite metric in Facebook Analytics : Active Users-> Median Session Length

Median Session Length: Shows the average amount of time unique users spend on our application per session. The metric can be viewed for Hour, Monthly and Daily. However we liked seeing the session length of hours as in the below picture. So for our application we could easily know how long the users used our application. Based on the session length we can speculate the information like to add extra features to have users stay longer so the longer session can be noted for future analytics.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FB Analytics
Basudha
Exercise3
Last 28 days
100% of people
Add Filter
Overview
Dashboards
Create Dashboard
Activity
Active users
Revenue
Funnels
Retention
Cohorts
Breakdowns
Journeys
Percentiles
Events
Event debugging
Overlap
Give Feedback
1
0
04/04 06/04 08/04 10/04 12/04 14/04 16/04 18/04 20/04 22/04 24/04 26/04 28/04 30/04
Sessions
Metric: Median session length
Time interval: Daily
Show by: Overall
30 mins
20 mins
10 mins
0
Wed, 28 Apr 2021
22.6 minutes Median session length
Median session length
04/04 06/04 08/04 10/04 12/04 14/04 16/04 18/04 20/04 22/04 24/04 26/04 28/04 30/04
Age & gender
Report a Problem