ANAMIKA SARKAR|||6904
MSC.DATA ANALYTICS

MAHATMA EDUCATION SOCIETY'S

PILLAI COLLEGE OF ARTS, COMMERCE & SCIENCE

(Autonomous)

NEW PANVEL

PROJECT REPORT ON

"LUNCH IDEA WEBSITE ANALYSIS"

IN PARTIAL FULFILLMENT OF

MASTER OF DATA ANALYTICS

SEMESTER III 2024-25

PROJECT GUIDE

PROF. MANASI KHEDEKAR

SUBMITTED BY: ANAMIKA SARKAR

ROLL NO: 6904

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Mahatma Education Society's

PILLAI COLLEGE OF ARTS, COMMERCE & SCIENCE
(Autonomous)
Re-accredited "A" Grade by NAAC (3rd Cycle)

Project Completion Certificate

THIS IS TO CERTIFY THAT

ANAMIKA SARKAR

of **M.Sc. Data Analytics Part - II** has completed the project titled **LUNCH IDEA WEBSITE ANALYSIS** of subject **DIGIT FOOTPRINT: UNRAVELING WEB ANALYTICS** under our guidance and supervision during the academic year 2023-24 in the department of M.Sc. Data Analytics

Project Guide | Course Coordinator | Head of the Department

Pillai College of Arts, Commerce & Science (Autonomous) New Panvel

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Introduction

Analyzing user behavior on web platforms is essential in today's digital landscape for developing effective business strategies and enhancing the overall user experience. Web analytics enables the collection, analysis, and interpretation of web data to optimize website performance and improve user engagement. This project aims to implement an efficient web analytics solution by integrating a website with Google Tag Manager (GTM).

Google Tag Manager is a powerful tool developed by Google that simplifies the process of deploying and managing tracking codes, or "tags," on a website without direct access to the site's underlying code. By using GTM, we can seamlessly integrate Google Analytics (GA) and other third-party tags to monitor key metrics such as page views, bounce rates, session durations, and conversion rates.

This project will focus on the following:

- Setting up the Global Site Tag and configuring the GTM container to function optimally for the website.

- Implementing essential tracking tags, including Google Analytics, event tracking, and conversion tracking, to monitor key performance indicators (KPIs).

- Customizing tags to track user interactions such as scroll depth, search, and outbound link clicks.

- Ensuring compliance with privacy regulations, including General Data Protection Regulation(GDPR) and California Consumer Privacy Act (CCPA), by managing cookie consent and data anonymization within GTM.

- Analyzing the collected data to derive actionable insights for enhancing website functionality, user experience, and business outcomes.

Objective

The objective of this project is to implement a comprehensive web analytics system using Google Tag Manager (GTM) to track and analyse user behaviour on a website. The aim is to enhance website performance, improve user experience, and drive business outcomes by:

- Integrating Google Tag Manager to efficiently manage and deploy tracking tags.
- Setting up tracking for essential website metrics such as page views, bounce rates, and conversion rates.
- Collecting and analysing user interaction data to derive actionable insights for website optimization.

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Project-Scope

The scope of this project encompasses the complete implementation of a web analytics solution through Google Tag Manager (GTM), with a focus on improving website performance and user experience. The project will cover the following key areas:

1. **Integration of Google Tag Manager (GTM):**
    - Configuring the GTM container and deploying the Global Site Tag to the website.
    - Ensuring compatibility with Google Analytics (GA) and other third-party tags.
2. **Tracking Implementation:**
    - Setting up basic and advanced tracking tags, including page views, event tracking, and conversion goals.
    - Implementing custom tags to capture detailed user interactions such as form submissions, scroll depth, video views, and outbound link clicks.
3. **Data Collection and Reporting:**
    - Capturing and analyzing key metrics such as bounce rates, session durations, and conversion rates.
    - Creating reports in GA and GTM dashboards for ongoing monitoring and performance evaluation.
4. **Privacy Compliance:**
    - Ensuring that the tracking implementation complies with privacy regulations, specifically GDPR (General Data Protection Regulation) and CCPA (California Consumer Privacy Act).
    - Incorporating features to manage cookie consent and anonymize user data where necessary.
5. **Data Analysis and Insights:**
    - Analysing user behaviour data to uncover actionable insights aimed at improving website performance and user engagement.
    - Identifying areas for improvement, such as optimizing page load times, enhancing content layout, or refining call-to-action (CTA) placements.

Technologies Used

1. Google Tag Manager (GTM):
   GTM is the primary tool for managing and deploying tracking tags without direct access to the website's source code. It simplifies the process of integrating various analytics and marketing tools, providing flexibility and control over what is tracked on the website.

2. Google Analytics (GA):
   Google Analytics is used to monitor website traffic and user behaviour. It allows tracking of key metrics such as page views, bounce rates, session duration, and conversion goals, offering insights into how visitors interact with the website.

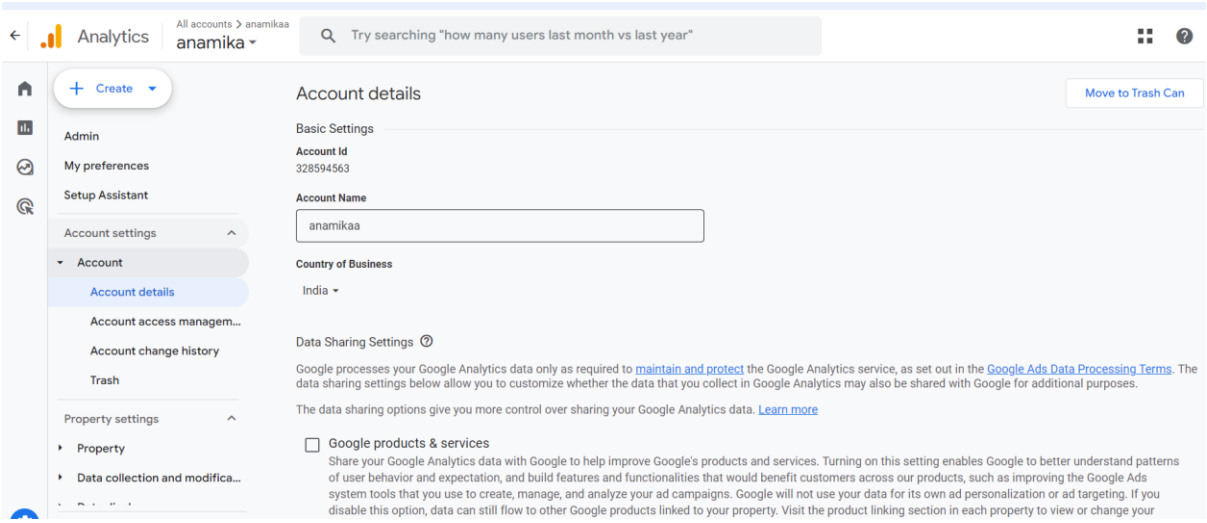
3. Google Sheets / Excel:
   Spreadsheet tools are used for organizing, exporting, and further analysing data collected through GTM and GA. Data may be exported for deeper analysis or for presentation purposes.

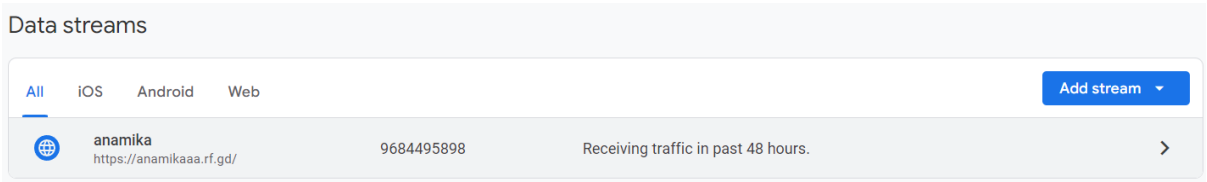
4. Looker Studio (formerly Google Data Studio):
   Looker Studio is used to visualize data collected from Google Analytics and other sources. It enables the creation of interactive, customizable reports and dashboards that present data insights in a clear, accessible manner for stakeholders and decision-makers.

5. WordPress:
   WordPress is the content management system (CMS) used to manage the website in this project. GTM and GA are easily integrated with WordPress using plugins or manual code insertion, enabling seamless tracking of user behaviour and website performance without requiring extensive technical knowledge.

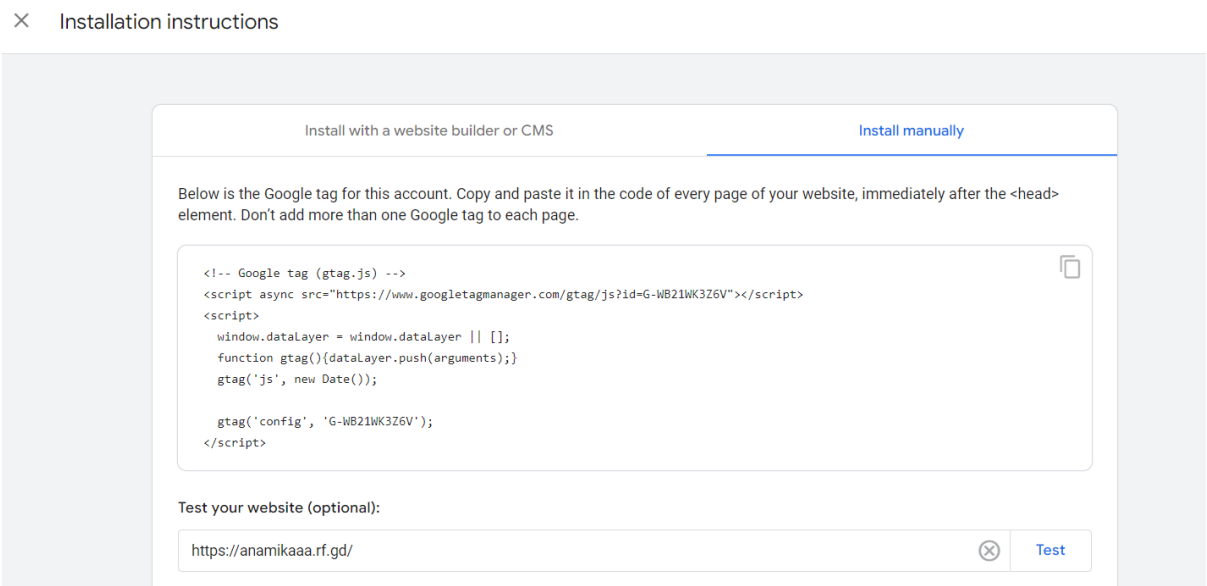
Google Analytics Setups

Setup the google analytics Account

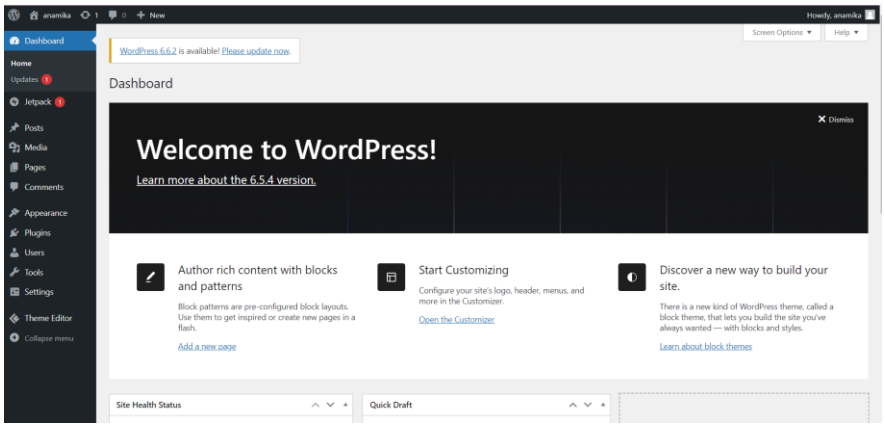




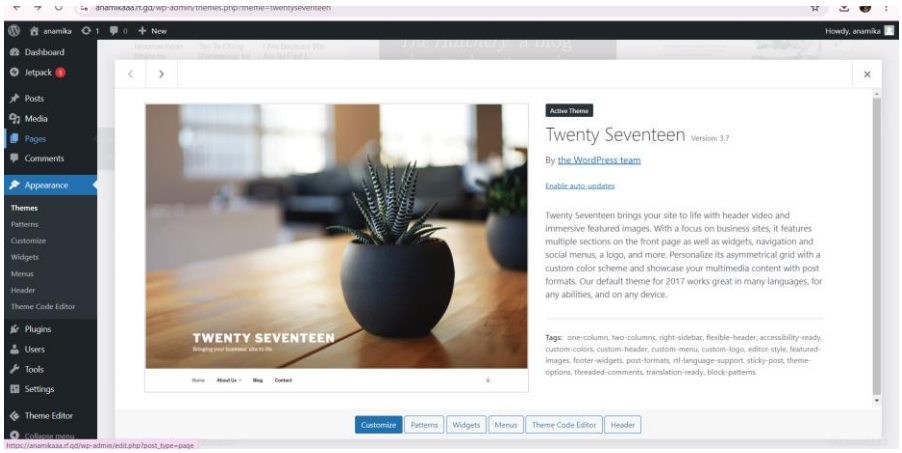
The google tag manager code

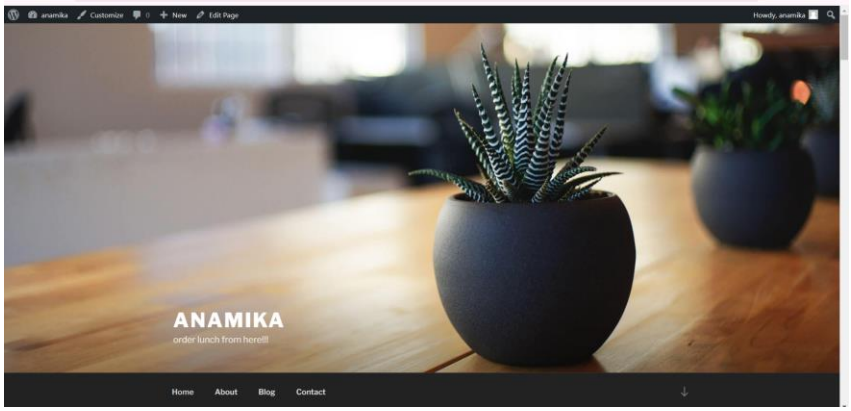


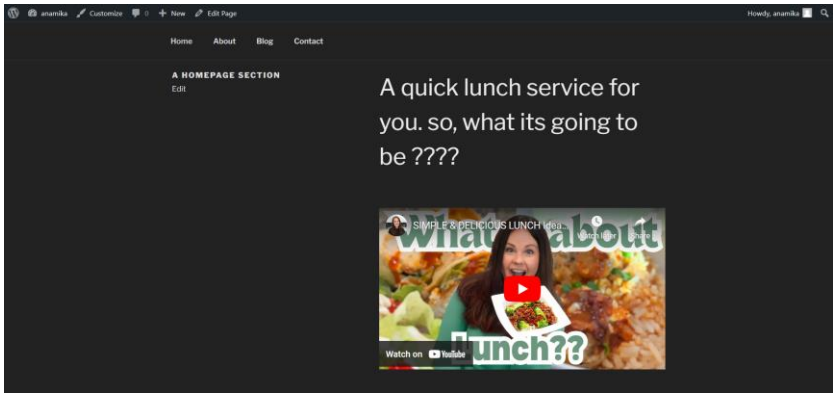
Now create a website using word press

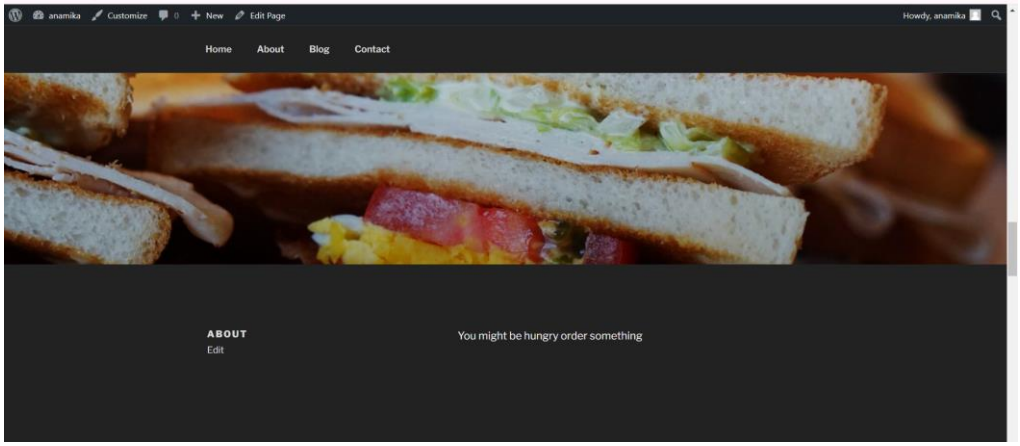


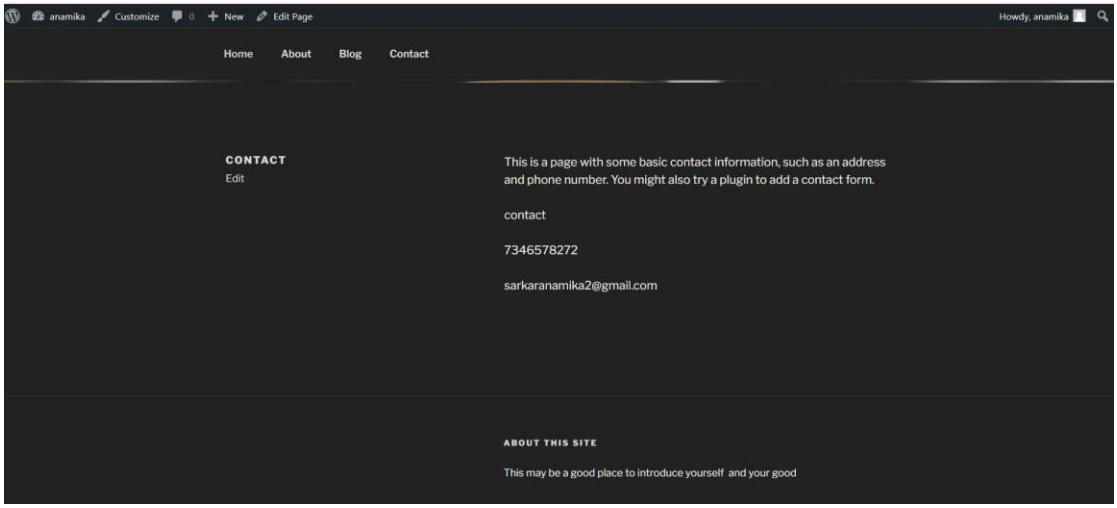
Select any template



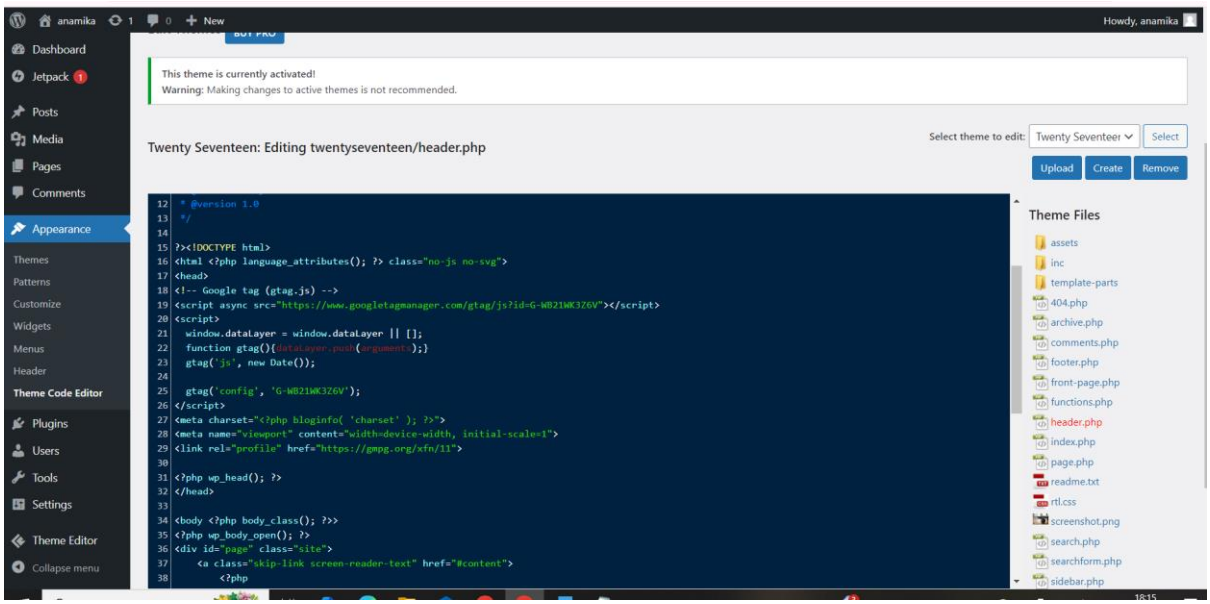




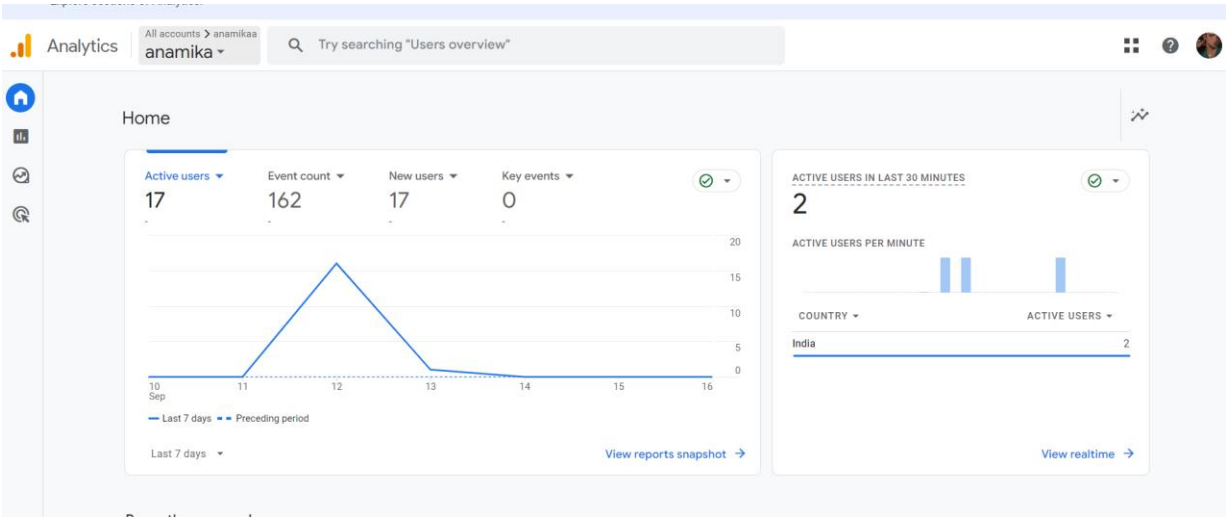


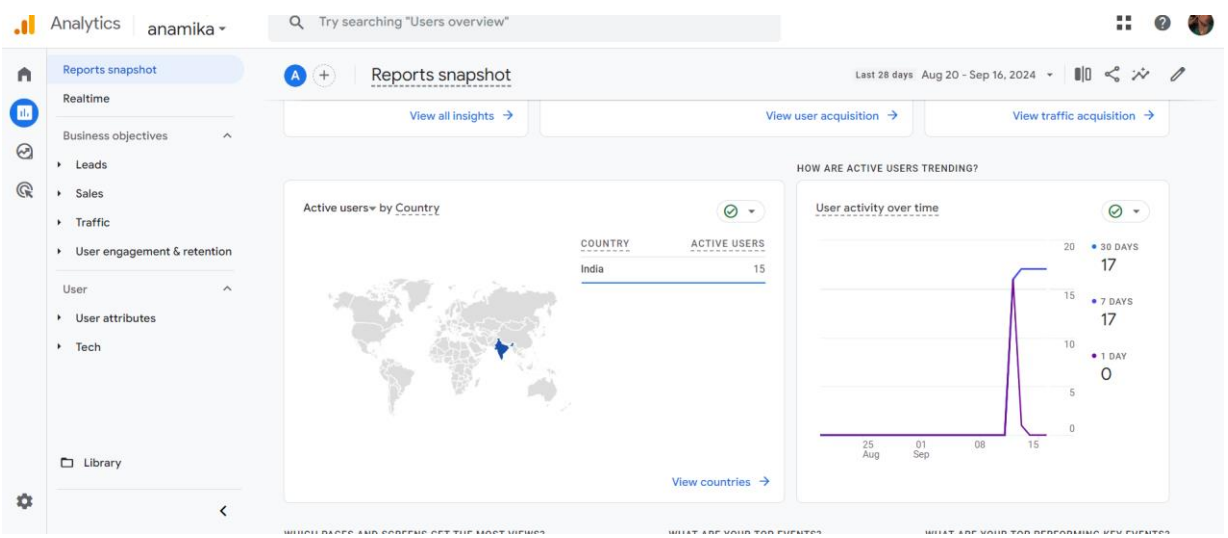


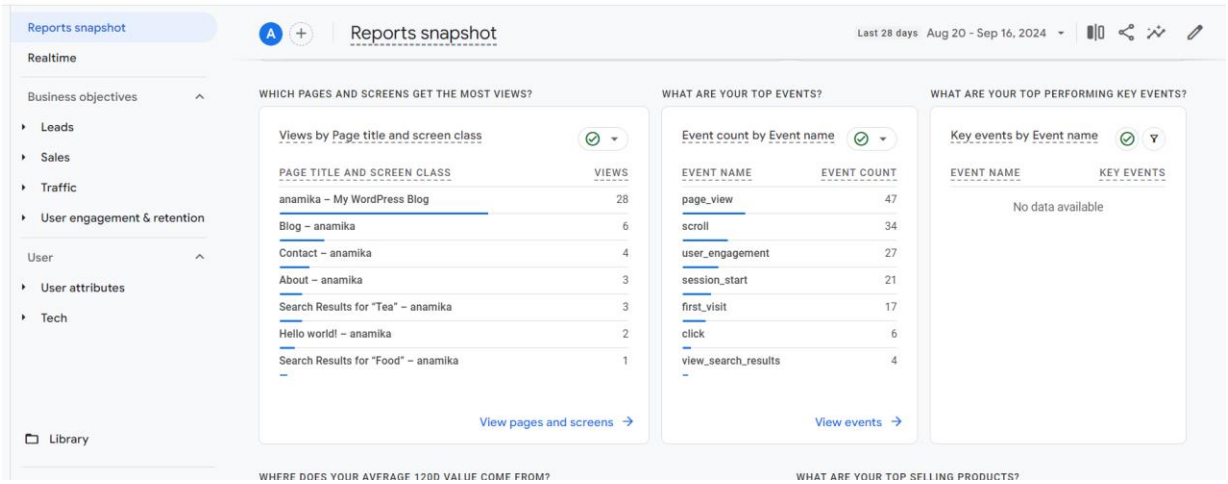
Now go to appearance ,select theme file editor click on header.php and the paste the above copied code and save the file.



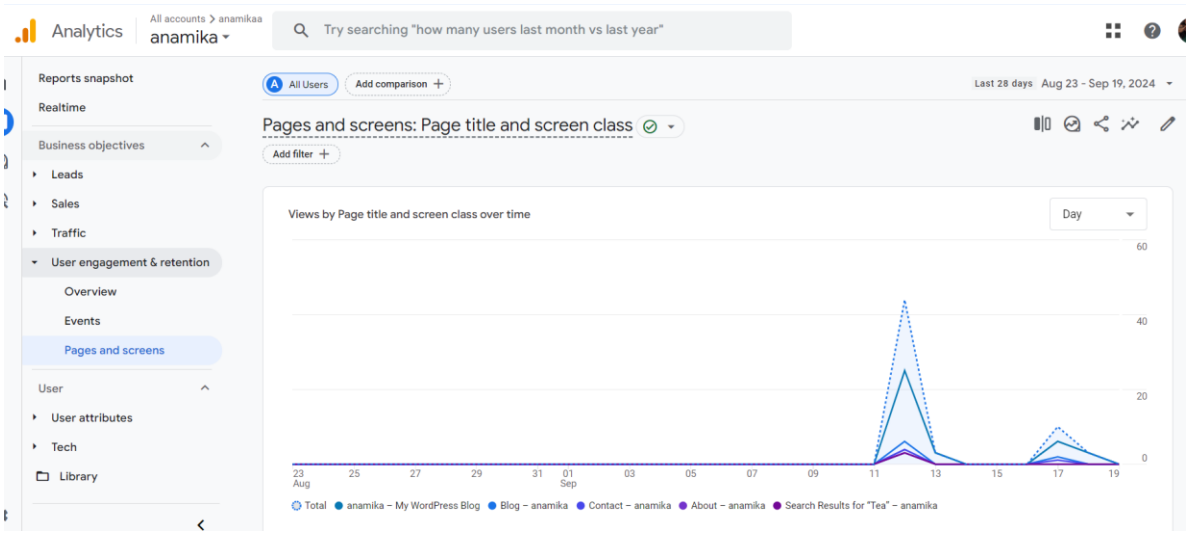
Home page of Google Analytics

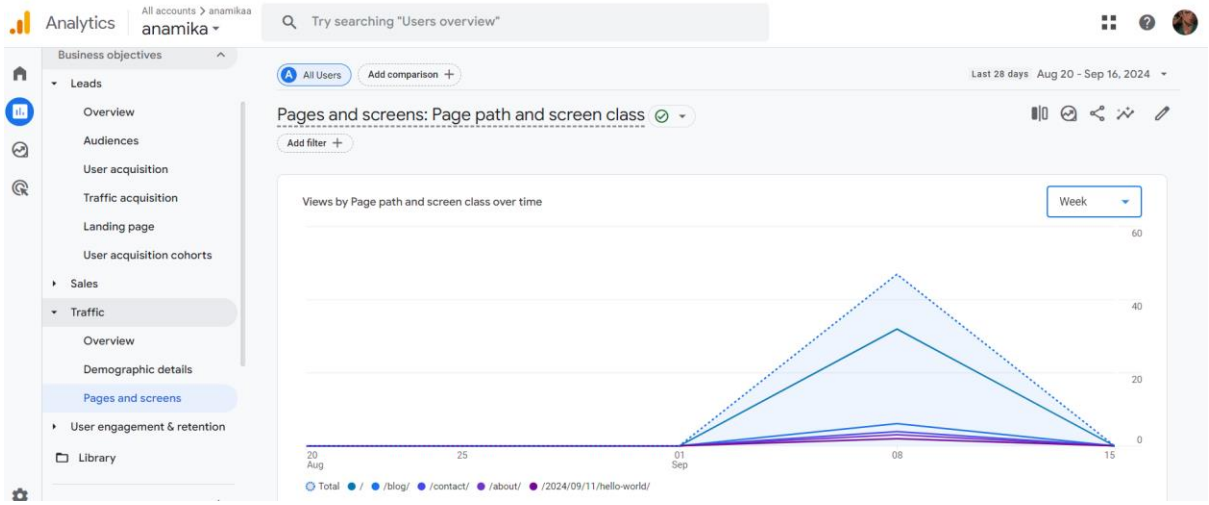


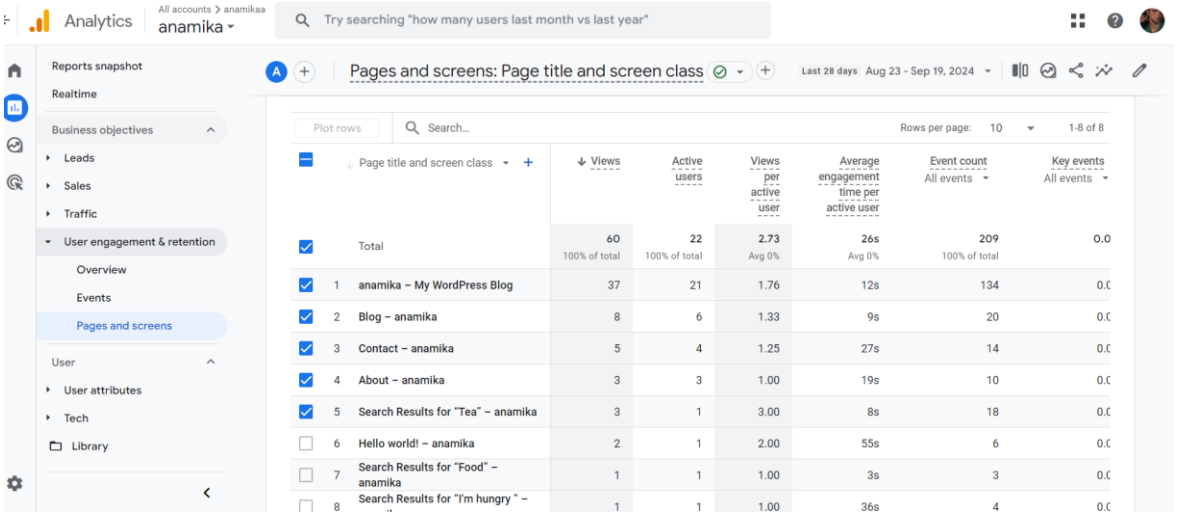




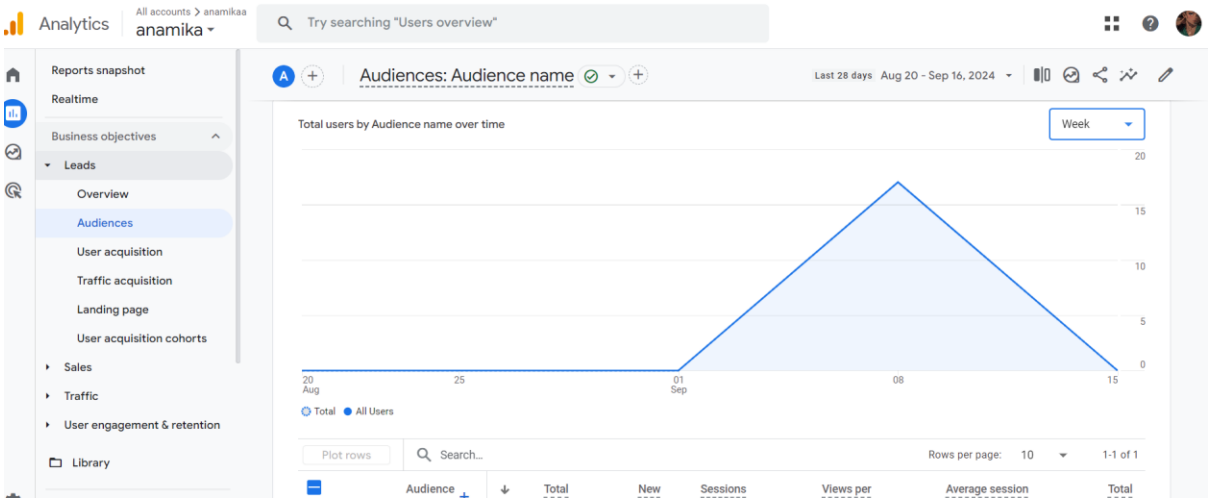
Pages and screens: Page title and screen class

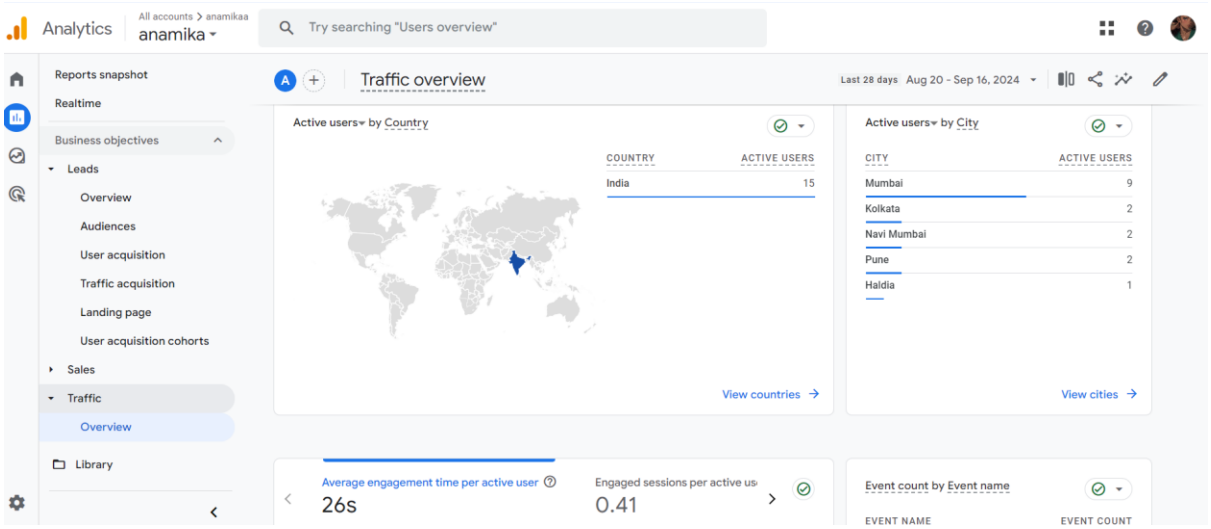


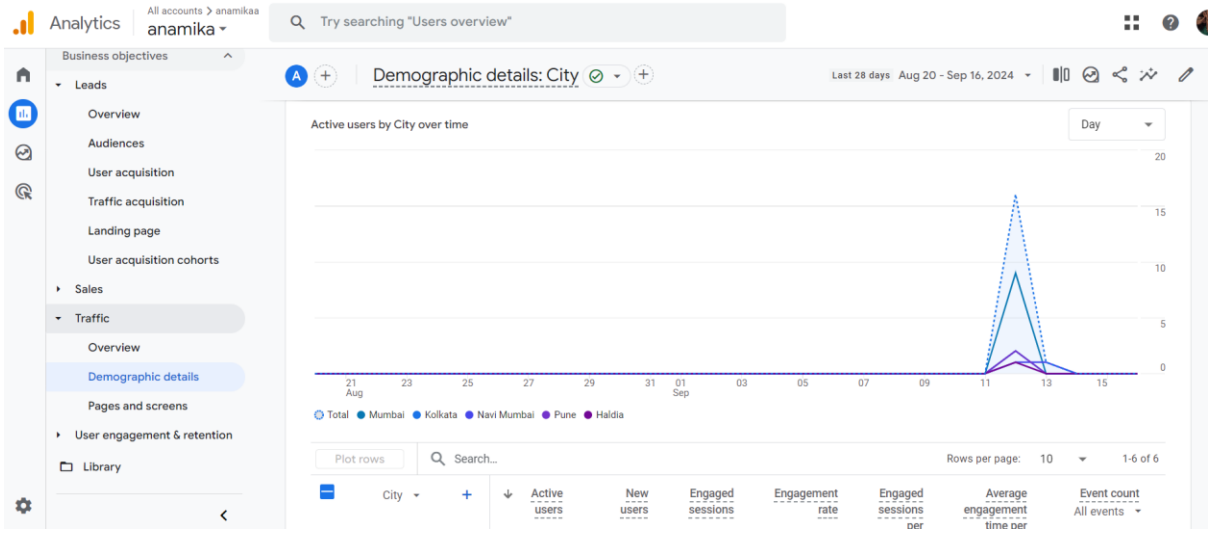




Audience

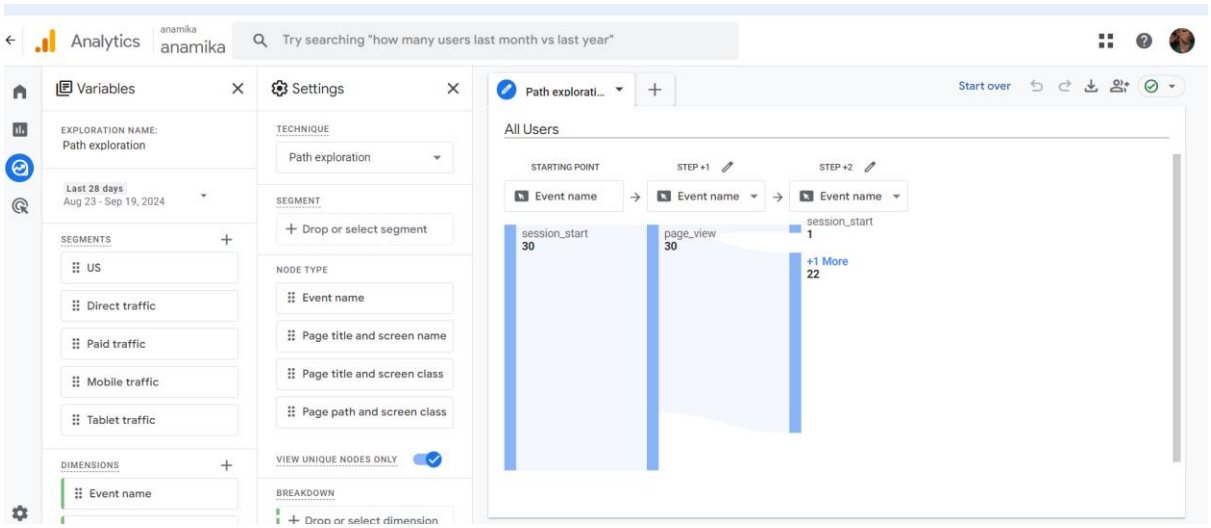

Analytics
anamika
Try searching "Users overview"
Reports snapshot
Realtime
Business objectives
Leads
Overview
Audiences
User acquisition
Traffic acquisition
Landing page
User acquisition cohorts
Sales
Traffic
User engagement & retention
Library
Audiences: Audience name
Last 28 days Aug 20 - Sep 16, 2024
Total users by Audience name over time
Week
Total
All Users
Plot rows
Search...
Rows per page: 10
1-1 of 1
Audience
Total
New
Sessions
Views per
Average session
Total

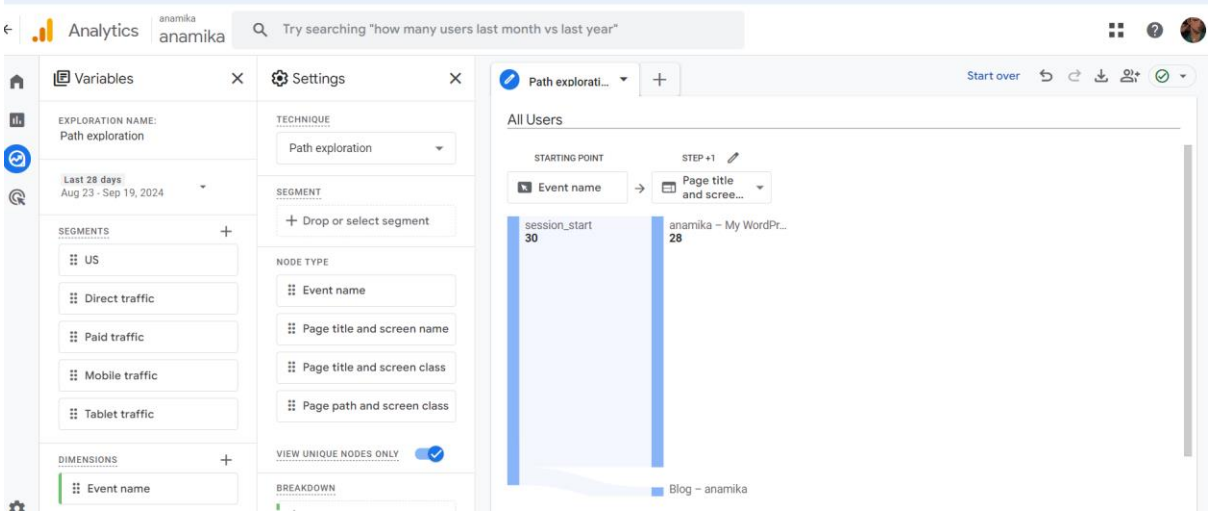

Analytics
anamika
Try searching "Users overview"
Traffic overview
Last 28 days Aug 20 - Sep 16, 2024
Active users by Country
COUNTRY
ACTIVE USERS
India 15
Active users by City
CITY
ACTIVE USERS
Mumbai 9
Kolkata 2
Navi Mumbai 2
Pune 2
Haldia 1
View countries
View cities
Average engagement time per active user
26s
Engaged sessions per active us
0.41
Event count by Event name
EVENT NAME
EVENT COUNT


Analytics
anamika
Try searching "Users overview"
Demographic details: City
Last 28 days Aug 20 - Sep 16, 2024
Active users by City over time
Day
Total
Mumbai
Kolkata
Navi Mumbai
Pune
Haldia
Plot rows
Search...
Rows per page: 10
1-6 of 6
City
Active users
New users
Engaged sessions
Engagement rate
Engaged sessions per
Average engagement time per
Event count
All events

Path Exploration

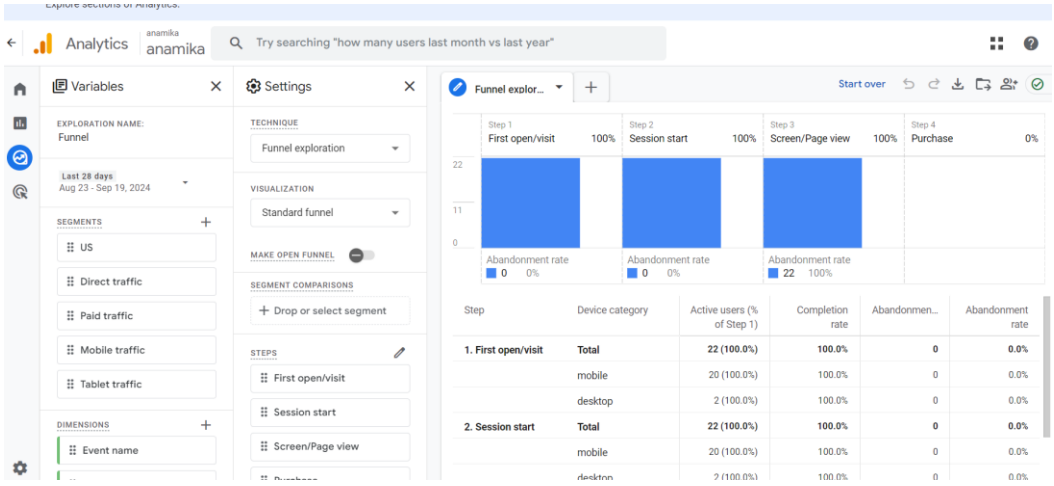
The path exploration process is critical for understanding the journey users take through a website, allowing businesses to optimize user flow, increase engagement, and drive conversions. In this project, path exploration will focus on tracking user behaviour and identifying opportunities for improvement through detailed data collection and analysis.

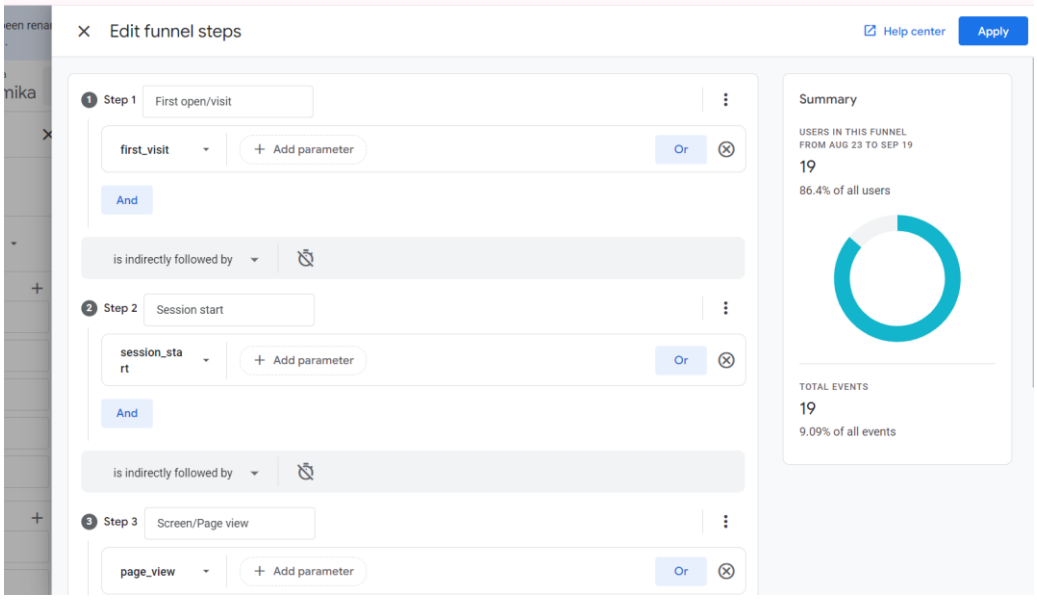


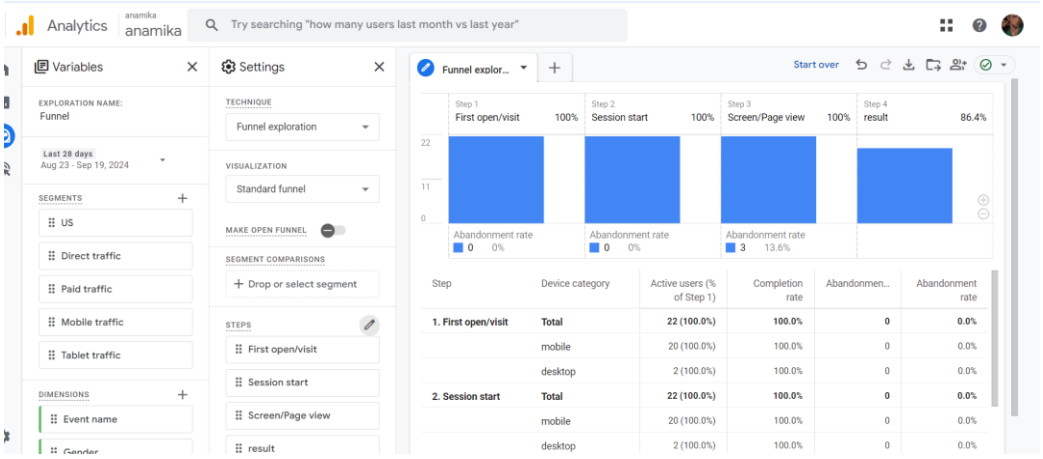


Funnel Exploration

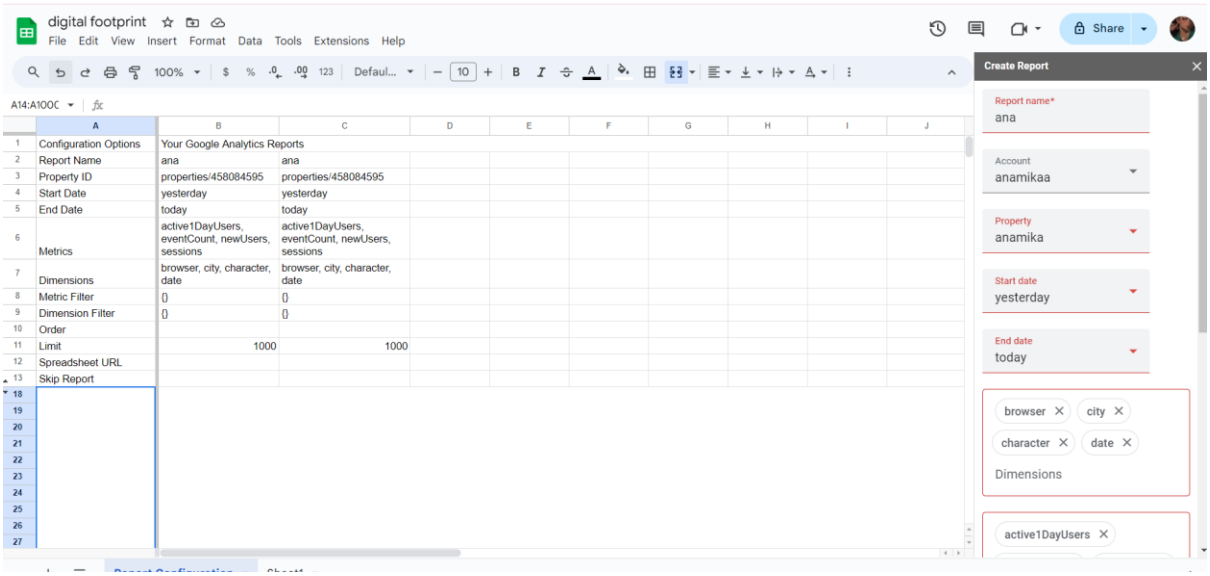
Funnel Exploration in Google Analytics 4 (GA4) is a powerful feature that allows you to analyse the steps users take to complete a defined process on your website or app, such as making a purchase or signing up for a newsletter. It helps visualize the user journey through a sequence of steps and highlights where users drop off at each stage, enabling you to identify bottlenecks and areas for improvement.





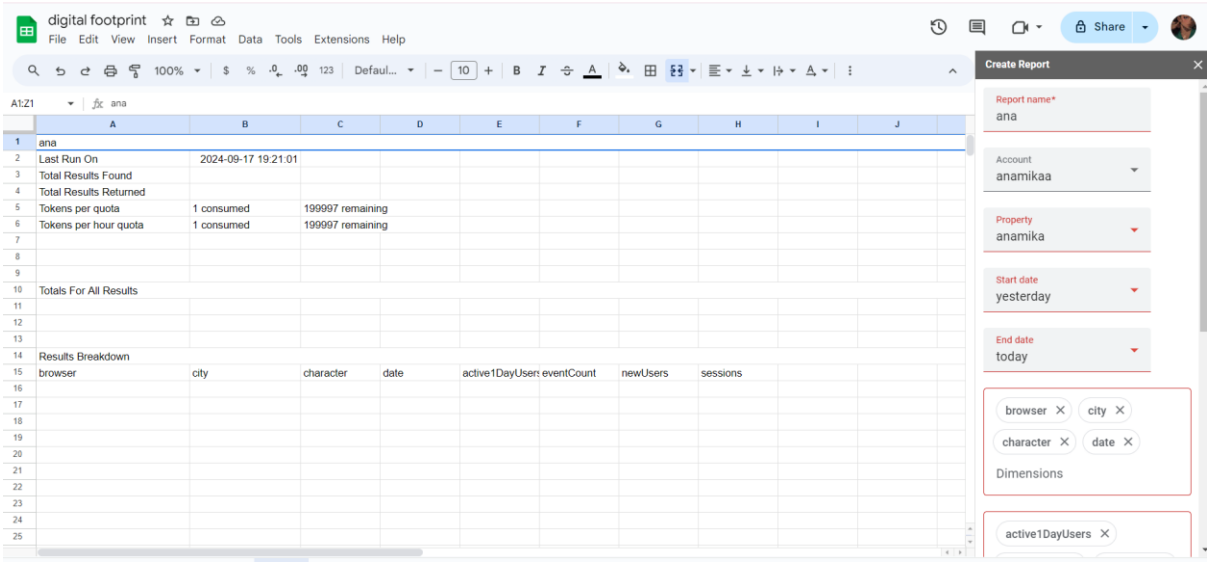


Using GA4 report builder created a report



	A	B	C
1	Configuration Options	Your Google Analytics Reports	
2	Report Name	ana	ana
3	Property ID	properties/458084595	properties/458084595
4	Start Date	yesterday	yesterday
5	End Date	today	today
6	Metrics	active1DayUsers, eventCount, newUsers, sessions	active1DayUsers, eventCount, newUsers, sessions
7	Dimensions	browser, city, character, date	browser, city, character, date
8	Metric Filter	{}	{}
9	Dimension Filter	{}	{}
10	Order		
11	Limit	1000	1000
12	Spreadsheet URL		
13	Skip Report		

Running report

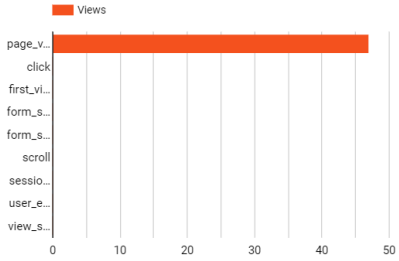


	A	B	C	D	E	F	G	H
1	ana							
2	Last Run On	2024-09-17 19:21:01						
3	Total Results Found							
4	Total Results Returned							
5	Tokens per quota	1 consumed	199997 remaining					
6	Tokens per hour quota	1 consumed	199997 remaining					
10	Totals For All Results							
14	Results Breakdown							
15	browser	city	character	date	active1DayUsers	eventCount	newUsers	sessions

Visualizations In Looker Studio

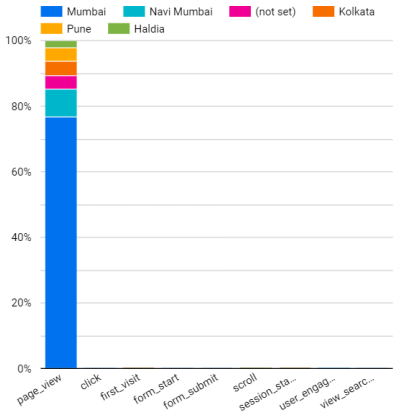
	Event name	Views
1.	page_view	47
2.	click	0
3.	first_visit	0
4.	form_start	0
5.	form_submit	0
6.	scroll	0
7.	session_start	0
8.	user_engagement	0
9.	view_search_results	0

1 - 9 / 9

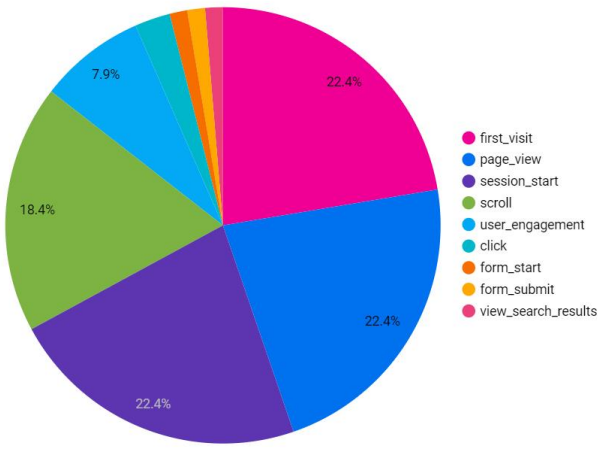


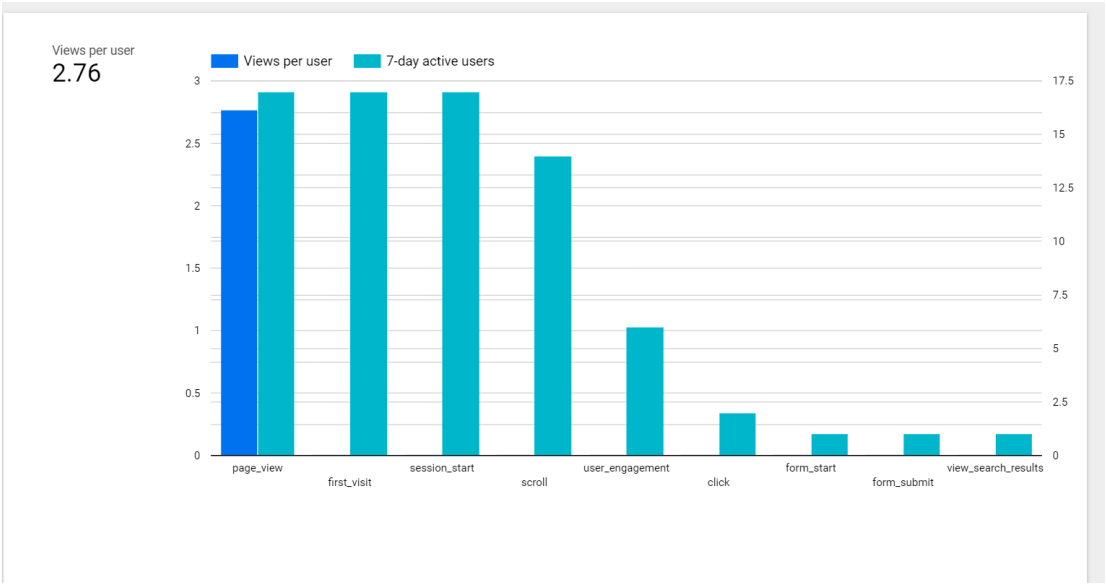
	City	Event name	Views
1.	Mumbai	page_view	
2.	Navi Mumbai	page_view	
3.	(not set)	page_view	
4.	Kolkata	page_view	
5.	Pune	page_view	
6.	Haldia	page_view	
7.	Mumbai	click	
8.	(not set)	session_start	
9.	Haldia	first_visit	
10.	Haldia	scroll	
11.	Haldia	session_start	
12.	Kolkata	first_visit	
13.	Kolkata	scroll	
14.	Kolkata	session_start	
15.	(not set)	first_visit	

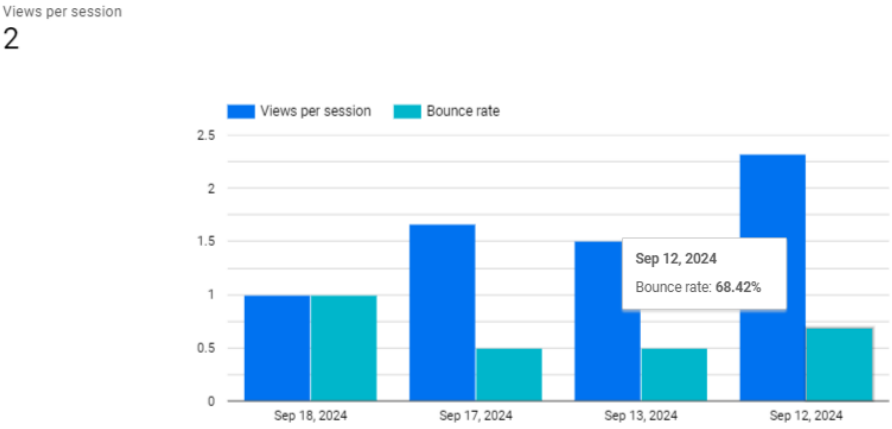
1 - 29 / 29

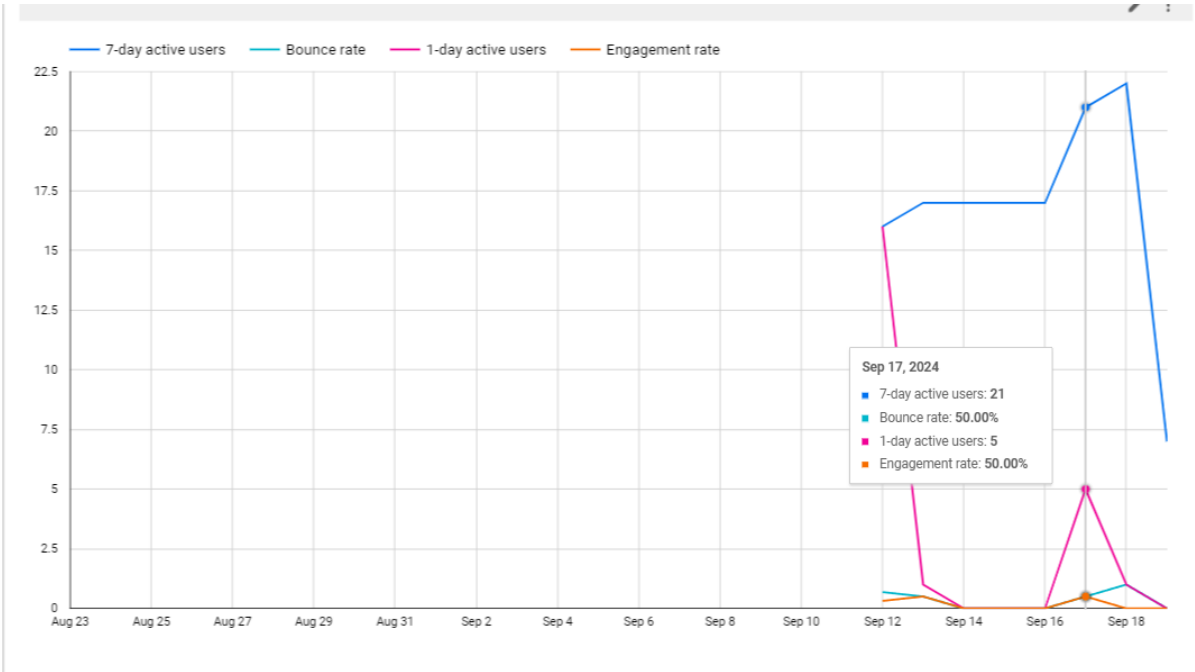


Active users
17




Views per user
2.76
Views per user
7-day active users
3
2.5
2
1.5
1
0.5
0
17.5
15
12.5
10
7.5
5
2.5
0
page_view
first_visit
session_start
scroll
user_engagement
click
form_start
form_submit
view_search_results


Views per session
2
Views per session
Bounce rate
2.5
2
1.5
1
0.5
0
Sep 12, 2024
Bounce rate: 68.42%
Sep 18, 2024
Sep 17, 2024
Sep 13, 2024
Sep 12, 2024


7-day active users
Bounce rate
1-day active users
Engagement rate
22.5
20
17.5
15
12.5
10
7.5
5
2.5
0
Sep 17, 2024
7-day active users: 21
Bounce rate: 50.00%
1-day active users: 5
Engagement rate: 50.00%
Aug 23
Aug 25
Aug 27
Aug 29
Aug 31
Sep 2
Sep 4
Sep 6
Sep 8
Sep 10
Sep 12
Sep 14
Sep 16
Sep 18

Conclusion

Web analytics through Google Tag Manager, Google Analytics 4 (GA4), and Looker Studio offers a robust framework for enhancing website performance. When integrated with WordPress, this approach enables businesses to gain deeper insights into user behaviour, engagement metrics, and overall performance, driving improvements that align with organizational objectives.

Implementing web analytics through Google Tag Manager, Google Analytics 4, and Looker Studio presents a comprehensive strategy for optimizing website performance, especially within a WordPress environment. This integrated approach not only enhances the understanding of user behaviour but also facilitates data-driven decisions that lead to improved user experiences and increased conversions. By leveraging customizable reporting and dynamic visualizations, businesses can identify critical areas for improvement and respond effectively to user needs. Ultimately, this project illustrates that consistent monitoring and optimization of web analytics are essential for achieving organizational objectives, enhancing engagement, and driving successful outcomes in the digital landscape.