

## Experiment 2 : Web Analytics

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**AIM : To study a Web Analytics Tool**

**Theory:**

**1. What is Web Analytics?**

### **Web Analytics**

- Web Analytics is the process of collecting, analyzing, and interpreting website data to understand user behavior and improve site performance. It helps businesses track essential metrics such as visitor traffic, page views, bounce rates, and conversion rates.
- There are two main types of web analytics: **on-site analytics** and **off-site analytics**. On-site analytics focuses on user activities within the website, such as time spent on pages, click-through rates, and navigation patterns. Off-site analytics, on the other hand, examines external factors like search engine rankings, social media interactions, and backlinks.
- Web analytics is crucial for improving user experience, optimizing website content, and enhancing digital marketing strategies. It enables businesses to make data-driven decisions by tracking the effectiveness of SEO efforts, paid advertisements, and content performance.
- Several tools are available for web analytics, including **Google Analytics, Adobe Analytics, Matomo, and Hotjar**. These tools provide insights that help businesses refine their strategies, boost engagement, and increase conversions. By leveraging web analytics effectively, organizations can enhance their online presence and achieve their goals.

## **2. Web Analytics Tools and Their Features:**

There are several web analytics tools available, each offering unique features to track and analyze website performance. Some of the most prominent tools include:

### **a. Google Analytics**

#### **Features:**

- Tracks website traffic, user demographics, and behavior flow
- Provides real-time data on active users
- Offers goal tracking and conversion analysis
- Supports event tracking for user interactions
- Integrates with Google Ads and Search Console

### **b. Adobe Analytics**

#### **Features:**

- Provides deep customer insights with AI-driven analytics
- Enables real-time data tracking and predictive analytics
- Offers advanced segmentation and data visualization
- Supports multi-channel attribution for marketing analysis
- Integrates with Adobe Experience Cloud for enhanced user engagement

### **c. Hotjar**

#### **Features:**

- Provides heatmaps to visualize user interactions on pages
- Offers session recordings to track individual user journeys
- Includes survey and feedback tools to collect user opinions
- Enables funnel tracking to identify drop-off points

- Supports A/B testing insights for optimizing web elements

#### **d. Matomo (formerly Piwik)**

##### **Features:**

- Open-source and self-hosted, ensuring full data privacy
- Provides detailed visitor insights with customizable dashboards
- Tracks e-commerce performance and goal conversions
- Offers heatmaps and session recordings for usability analysis
- Complies with GDPR and other data protection regulations

#### **e. Crazy Egg**

##### **Features:**

- Uses heatmaps to track where users click and scroll
- Provides session recordings to analyze user behavior
- Offers A/B testing tools for optimizing website elements
- Includes an overlay report to display click percentages
- Provides user-friendly reports for quick insights

### **3. Why is it Important to Learn Web Analytics?**

Learning web analytics is essential for businesses and individuals who want to optimize their online presence and make data-driven decisions. It helps in understanding user behavior, identifying trends, and improving website performance. With web analytics, businesses can track visitor demographics, traffic sources, and engagement levels, allowing them to enhance user experience and boost conversions.

Additionally, web analytics provides valuable insights into marketing campaigns, helping organizations allocate budgets efficiently and measure the success of SEO, social media, and paid advertising strategies. It also aids in detecting website issues such as high bounce rates, slow-loading pages, or broken links, ensuring smooth functionality. In today's data-driven world, mastering web analytics is crucial for maximizing website efficiency and achieving business goals.

#### 4. Key Performance Indicators (KPIs) for Your Website:

Key Performance Indicators (KPIs) are measurable metrics used to evaluate a website's performance and effectiveness. Some essential KPIs include:

##### 1. Traffic Metrics:

- **Total Visitors** – Number of people visiting the site.
- **Unique Visitors** – First-time visitors in a given period.
- **Page Views** – Total number of pages viewed.

##### 2. Engagement Metrics:

- **Bounce Rate** – Percentage of visitors who leave after viewing only one page.
- **Average Session Duration** – The time users spend on the website.
- **Pages per Session** – Average number of pages viewed per visit.

##### 3. Conversion Metrics:

- **Conversion Rate** – Percentage of visitors who complete a goal (e.g., purchase, signup).
- **Click-Through Rate (CTR)** – Percentage of users clicking on links or ads.
- **Lead Generation** – Number of signups, form submissions, or inquiries.

##### 4. SEO & Traffic Sources Metrics:

- **Organic Traffic** – Visitors coming from search engines.
- **Referral Traffic** – Visitors coming from other websites.
- **Direct Traffic** – Visitors who type the URL directly into the browser.

##### 5. Performance & Technical Metrics:

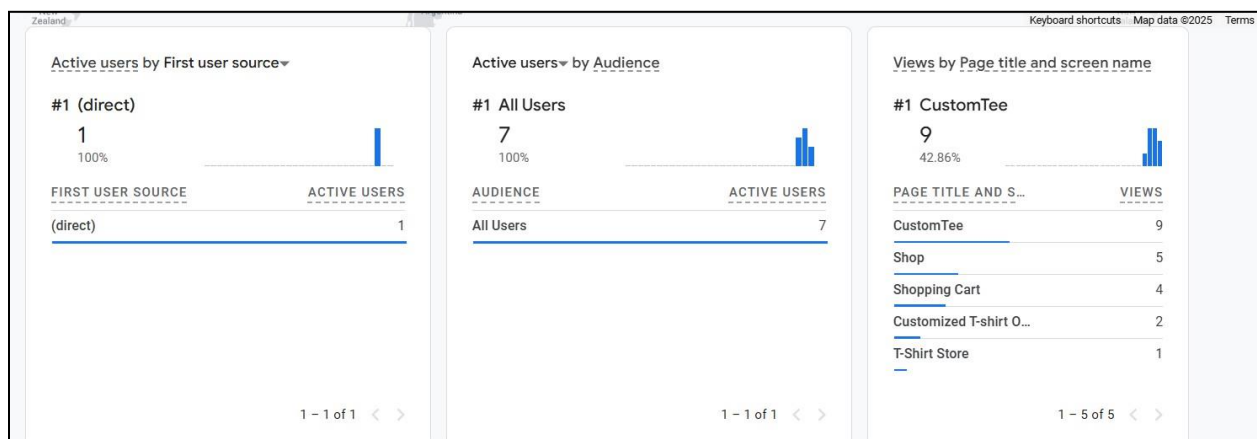
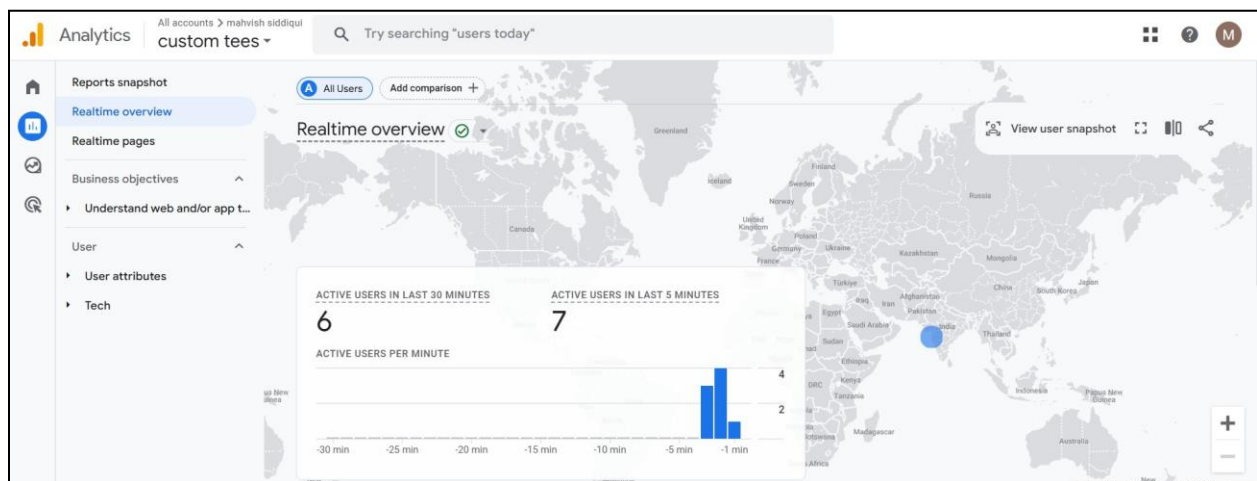
- **Page Load Speed** – Time taken for the website to load.

- **Mobile Responsiveness** – How well the site performs on mobile devices.
- **Exit Rate** – The percentage of users who leave from a specific page.

Tracking these KPIs allows businesses to make informed decisions, enhance user experience, and improve overall website performance

**Link to website:** [https://github.com/Skailaje/webx\\_miniproject](https://github.com/Skailaje/webx_miniproject)

1. show landing page of Google Analytics, where it shows the basic analytics of website like users, event counts (like scroll, click), conversion rate & new users.



### Event count by Event name

#### #1 page\_view

24

33.33%



EVENT NAME	EVENT COUNT
page_view	24
user_engagement	22
scroll	14
session_start	6
first_visit	5
form_start	1

1 - 6 of 6 < >

Keyboard shortcuts Map data ©2019

### Views by Page title and screen name

#### #1 CustomTee

10

41.67%

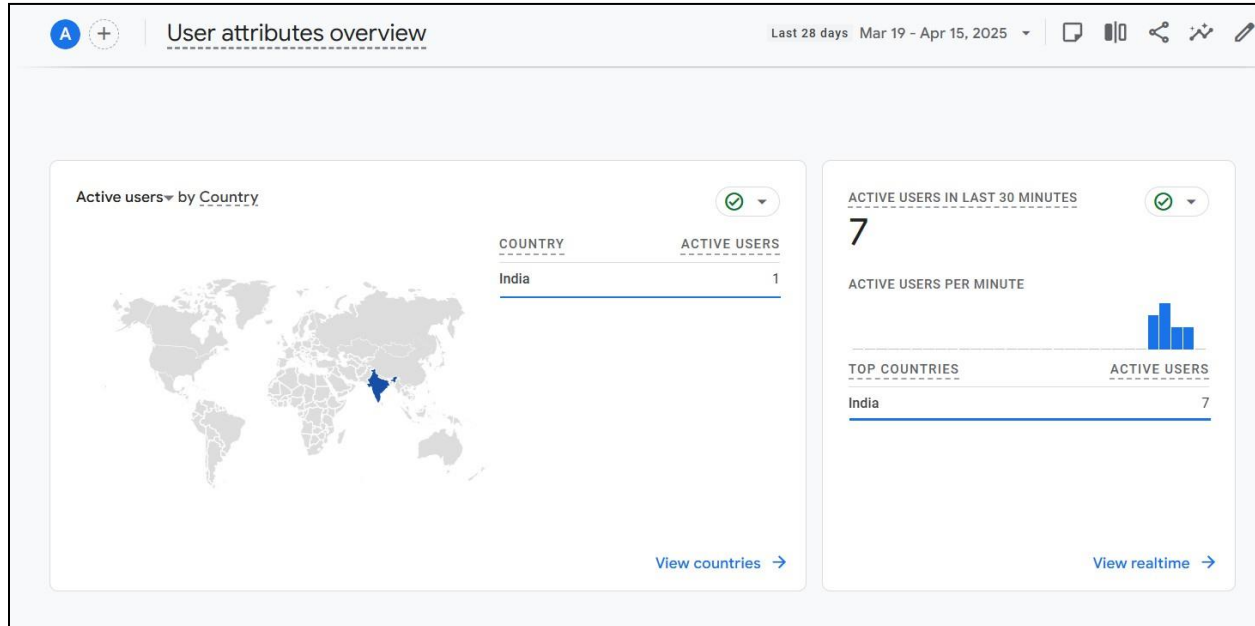


PAGE TITLE AND S...	VIEWS
CustomTee	10
Shop	7
Shopping Cart	4
Customized T-shirt O...	2
T-Shirt Store	1

1 - 5 of 5 < >

This gives the analysis of traffic on each page of website.

## 2. Show demographic information of user base

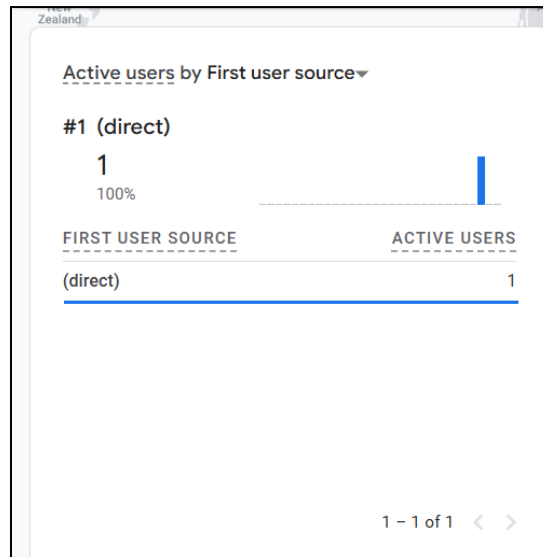


Plot rows		Search...					Rows per page: 10	1-1 of 1	
	Country		Active users	New users	Engaged sessions	Engagement rate	Engaged sessions per active user	Average engagement time per active user	Event count All events
	Total		1 100% of total	0	1 100% of total	100% Avg 0%	1.00 Avg 0%	4s Avg 0%	6 100% of total
	1 India		1 (100%)	0 (-)	1 (100%)	100%	1.00	4s	6 (100%)

Plot rows		Search...		Rows per page: 10		1-1 of 1	
Audience name		Total users	New users	Sessions	Views per session	Average session duration	Total revenue
Total		1 100% of total	0	1 100% of total	2.00 Avg 0%	4m 25s Avg 0%	₹0.00
1	All Users	1 (100%)	0 (-)	1 (100%)	2.00	4m 25s	₹0.00 (-)

The above picture gives us demographic information from where our user base is.

- shows how my website url is visited 'direct' if it is directly searched and visited 'referral' if it redirected through any third party website.



- shows what all events have been done by users on website for example:53 people viewed the page.

Event count by Event name

EVENT NAME	EVENT COUNT	
page_view	53	-
session_start	13	-
first_visit	9	-
scroll	9	-
user_engagement	6	-
form_start	2	-
-		

Last 7 days View events →

This table is titled 'Event count by Event name'. It lists various user events and their counts. The events are: page\_view (53), session\_start (13), first\_visit (9), scroll (9), user\_engagement (6), and form\_start (2). There is an additional row with a hyphen. At the bottom left, there is a dropdown menu set to 'Last 7 days'. At the bottom right, there is a link 'View events' with a right arrow icon.



## **Key Findings:**

### **a) User Traffic Source**

- **100% of the traffic** came from **direct sources**.
- No users were acquired through search engines, referrals, or social media platforms.
- This suggests that the website currently lacks visibility and relies on direct URL access.

### **b) Active Users Overview**

- The website had a total of **7 active users** during the analysis period.
- All users fell under the general audience category with no segmentation.

### **c) Page Views and User Engagement**

- The “**CustomTee**” page received the **highest number of views (9)**, indicating strong interest in the product customization feature.
- Other significant pages included:
  - **Shop** – 5 views
  - **Shopping Cart** – 4 views
- Pages with lower engagement:
  - **Customized T-shirt Overview** – 2 views
  - **T-Shirt Store** – 1 view
  - **Kids , women, men sections** - 0 views

## **Interpretation and Insights**

- Users are primarily engaging with the customization feature, which appears to be the core attraction of the site.
- The shopping process shows a drop-off after users reach the cart, which could indicate hesitation at the point of conversion.
- Low engagement with other pages suggests they may be either under-promoted or lacking in content value.
- The absence of external traffic channels highlights a critical area for growth.

## **Recommendations for Improvement**

### **a) Increase Website Visibility**

- Implement basic SEO practices such as keyword optimization, meta descriptions, and alt text.
- Promote the website through social media platforms like Instagram and Pinterest, which are well-suited for visual products.

**b) Optimize User Flow**

- Guide users from customization to checkout with clearer navigation and call-to-action (CTA) buttons.
- Example: Add a CTA on the CustomTee page that directs users to the Shop.

**c) Enhance Conversion Rates**

- Add elements of trust near the checkout process (e.g., secure payment icons, return policy, testimonials).
- Simplify the checkout process to reduce friction.

**d) Revamp Low-Engagement Pages**

- Reassess content and layout of underperforming pages like “T-Shirt Store.”
- Incorporate dynamic content such as featured products, deals, or customer feedback.

**e) Add Retargeting Strategies**

- Introduce email capture options for users to save their designs and return later.
- Use this data for remarketing campaigns or newsletters.