

## Experiment – 2

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

### **Theory:**

1. What is Web Analytics?

Web Analytics is the process of collecting, measuring, analyzing, and reporting data from a website to understand and optimize web usage. It helps in tracking user behavior, traffic sources, conversion rates, and the overall performance of a website. The goal is to improve user experience, marketing effectiveness, and business outcomes.

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

There are several web analytics tools available, each with its features. Some prominent ones include:

#### **a. Google Analytics**

- **Features:**
  - Real-time traffic tracking
  - Audience demographics and interests
  - Behavior flow analysis
  - Goal and event tracking
  - Custom dashboards and reports

#### **b. Adobe Analytics**

- **Features:**

- Advanced segmentation and customer journey analysis
- Predictive analytics and AI-powered insights
- Real-time data reporting
- Multichannel data integration
- Deep customization and data visualization tools

#### **c. Hotjar**

- **Features:**

- Heatmaps to visualize user clicks, taps, and scrolling behavior
- Session recordings of user interactions
- Surveys and feedback polls
- Funnel tracking to analyze drop-offs
- User behavior insights for UX/UI improvements

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

- **Features:**

- Open-source and self-hosted option for data privacy
- Real-time analytics
- Goal conversion and eCommerce tracking
- Heatmaps and session recordings
- GDPR-compliant and customizable

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

- **Features:**

- Heatmaps and scrollmaps
- A/B testing for website elements
- User recordings and click tracking
- Easy-to-understand visual reports
- Snapshots and user behavior trends

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

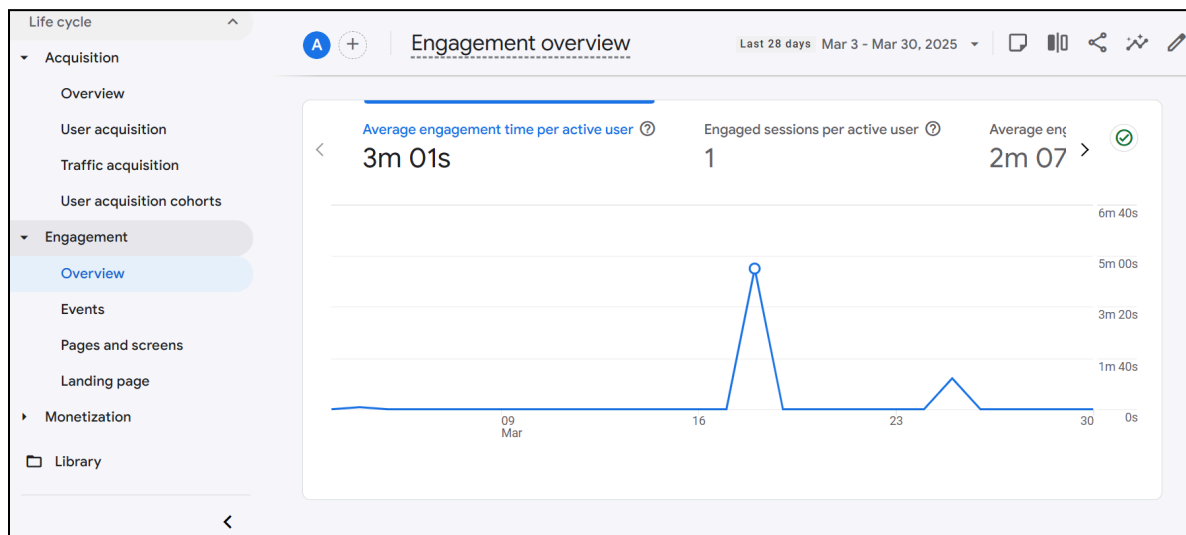
- To understand visitor behavior and enhance user experience
- To optimize website performance based on data insights
- To measure marketing effectiveness and ROI
- To track conversions and improve sales funnels
- To identify and fix usability issues
- To make data-driven decisions for continuous improvement

1. **Dashboard overview** showing real-time active users, traffic sources, device types, and top countries.

#### Inference:

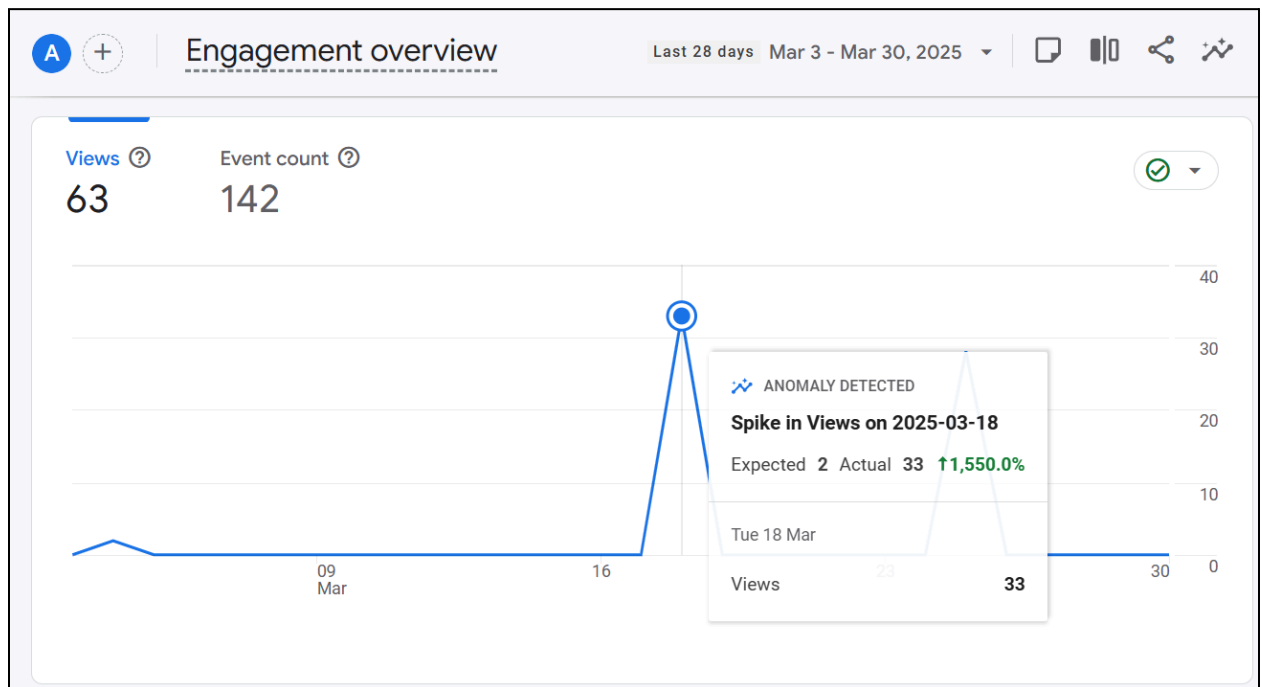
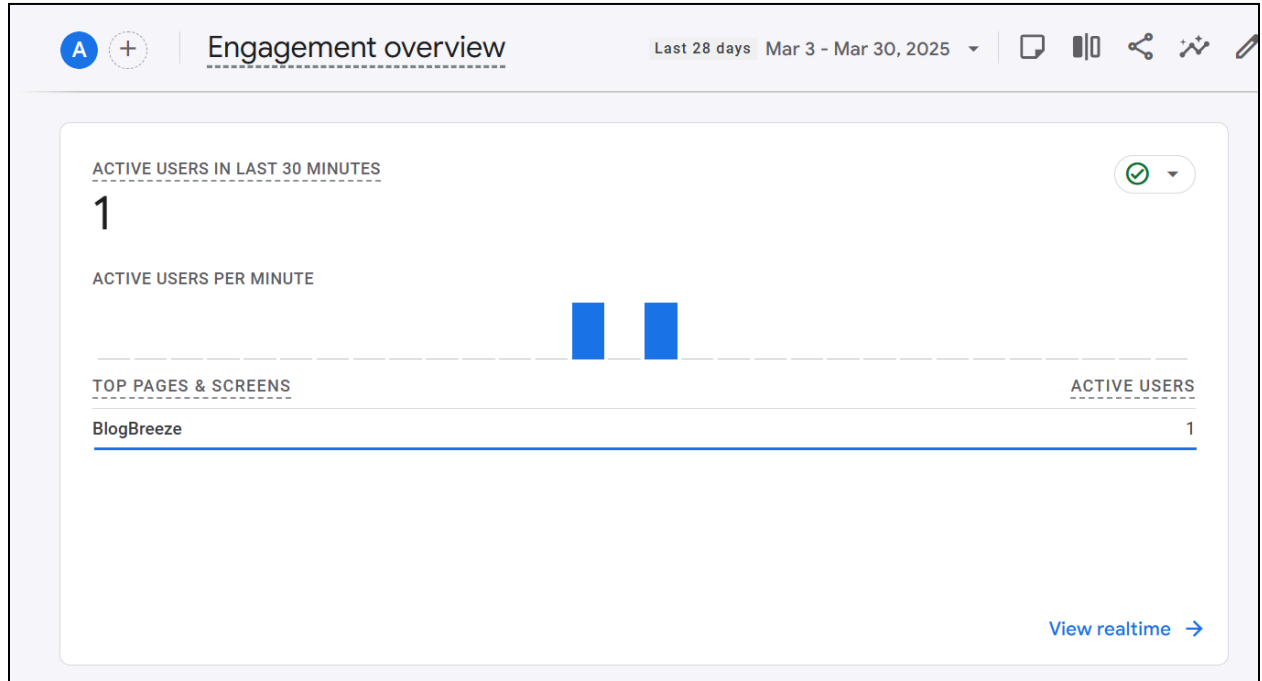
This tells us where users are coming from in real time and what devices they are using, helping us optimize for target regions and devices.

Plot rows		Search...		Rows per page: 10		1-1 of 1	
Session primary...Channel Group)				Sessions	Engaged sessions	Engagement rate	Average engagement time per session
Total				17 100% of total	12 100% of total	70.59% Avg 0%	2m 07s Avg 0%
<input checked="" type="checkbox"/>	1 Direct			17 (100%)	12 (100%)	70.59%	2m 07s



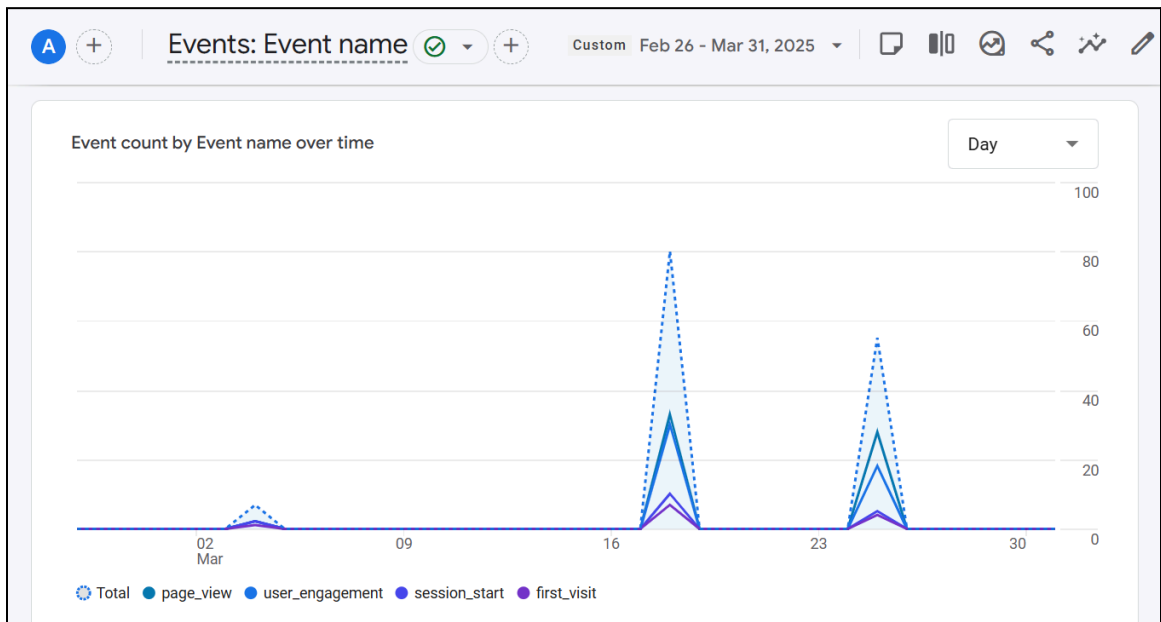
2. **Engagement overview of user activity** - no of active users and view count along with anomaly detection with spike rate

**Inference:** The spike in user views need to be studied to grab the attention of new users which inturn helps in acquisition of new users



3. Displays the **trend of events over time**, showing spikes on specific dates in March.

**Inference:** Traffic is inconsistent with spikes around campaigns or posts—**schedule regular content/posts** or ads around successful days to sustain and grow user engagement.



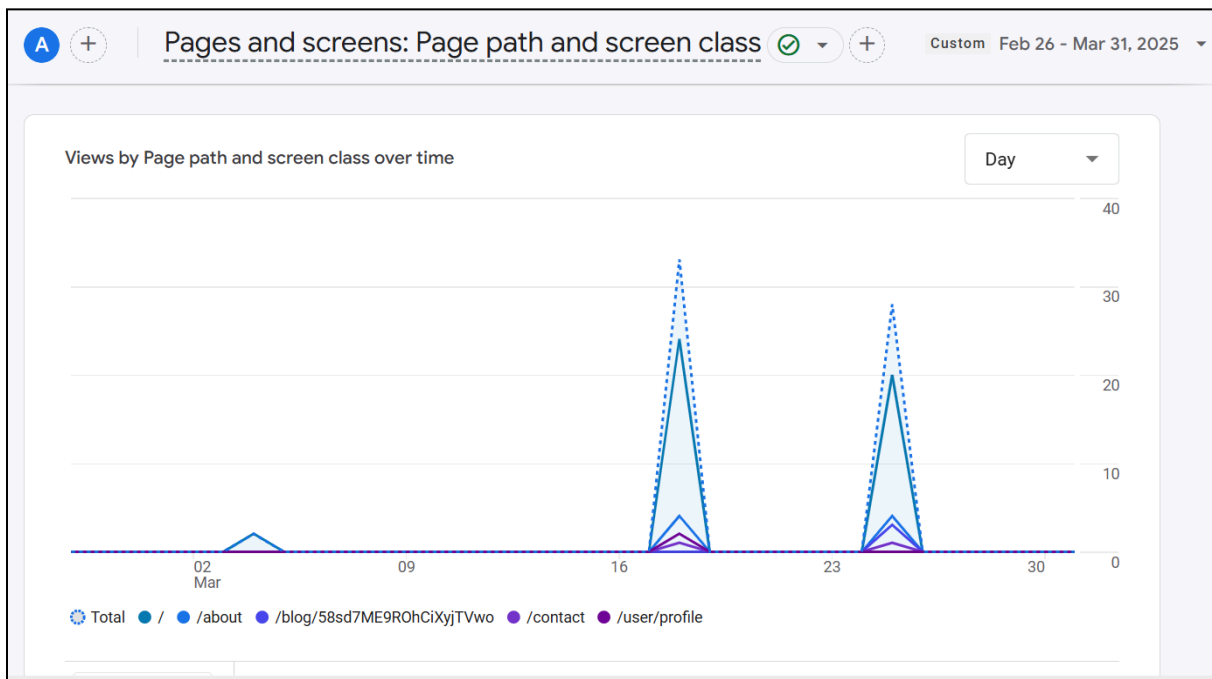
4. **Event types** (page\_view, user\_engagement, etc.) with their counts and user stats in Google Analytics.

**Inference:** User activity is happening (142 events by 12 users) but no revenue is generated—suggests focus on improving conversion by adding calls to action or optimizing landing pages.

Events: Event name						
Custom Feb 26 - Mar 31, 2025						
Total page_view user_engagement session_start first_visit						
Plot rows Search... Rows per page: 10 1-4 of 4						
	Event name	Event count	Total users	Event count per active user	Total revenue	
<input checked="" type="checkbox"/>	Total	142 100% of total	12 100% of total	11.83 Avg 0%	\$0.00	
<input checked="" type="checkbox"/>	1 page_view	63 (44.37%)	12 (100%)	5.25	\$0.00 (-)	
<input checked="" type="checkbox"/>	2 user_engagement	50 (35.21%)	12 (100%)	4.17	\$0.00 (-)	
<input checked="" type="checkbox"/>	3 session_start	17 (11.97%)	12 (100%)	1.42	\$0.00 (-)	
<input checked="" type="checkbox"/>	4 first_visit	12 (8.45%)	12 (100%)	1.00	\$0.00 (-)	

5. This graph shows which **specific pages or screens were visited** over time.

**Inference:** The homepage (/) dominates traffic, with others like /about and a blog link also receiving attention. Promote or improve lesser-visited pages to balance user journey and increase engagement.



6. A **detailed table of individual pages** with user count, views, average time spent, and engagement rate.

**Inference :**The blog page /user/blogs had the highest time spent (11m 23s), showing strong interest. Increase visibility of this content and link it to conversion paths to retain users and possibly monetize.

Pages and screens: Page path and screen class					
Custom Feb 26 - Mar 31, 2025					
<input checked="" type="checkbox"/>	1	/	46 (73.02%)	12 (100%)	3.83 1m 13s
<input checked="" type="checkbox"/>	2	/about	8 (12.7%)	4 (33.33%)	2.00 12s
<input checked="" type="checkbox"/>	3	/blog/58sd7ME9ROhCiXyjTVwo	3 (4.76%)	2 (16.67%)	1.50 1m 18s
<input checked="" type="checkbox"/>	4	/contact	2 (3.17%)	2 (16.67%)	1.00 8s
<input checked="" type="checkbox"/>	5	/user/profile	2 (3.17%)	1 (8.33%)	2.00 1s
<input type="checkbox"/>	6	/register	1 (1.59%)	1 (8.33%)	1.00 6s
<input type="checkbox"/>	7	/user/blogs	1 (1.59%)	1 (8.33%)	1.00 11m 23s
<input type="checkbox"/>	8	/blog/LYhoaM9oPUGG3NVQhfz5	0 (0%)	1 (8.33%)	0.00 8s
<input type="checkbox"/>	9	/blog/RhFqL6duMmgkK7HH0Smv	0 (0%)	1 (8.33%)	0.00 2m 20s
<input type="checkbox"/>	10	/login	0 (0%)	5 (41.67%)	0.00 44s

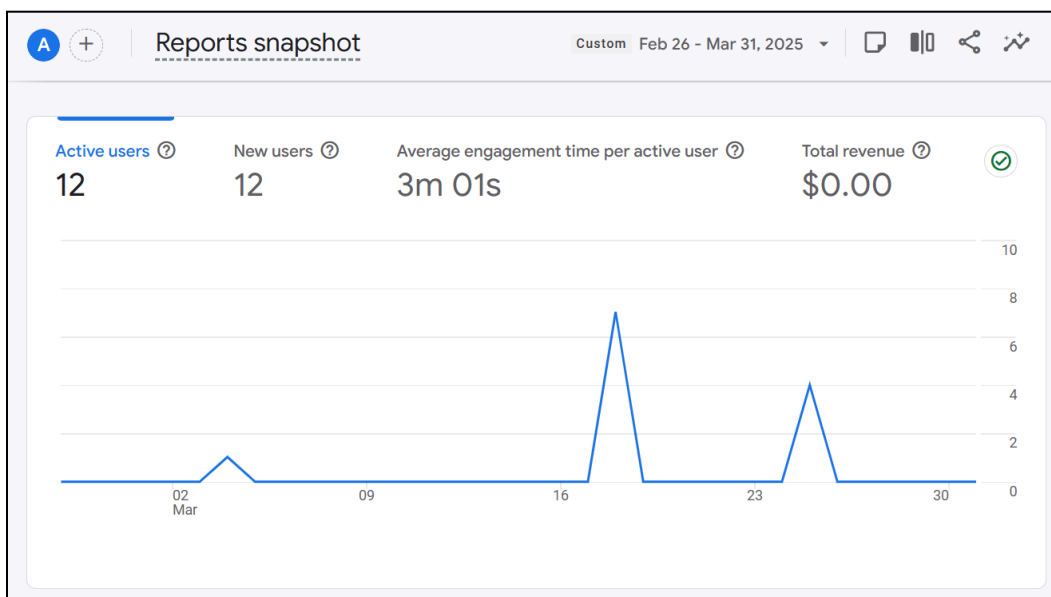
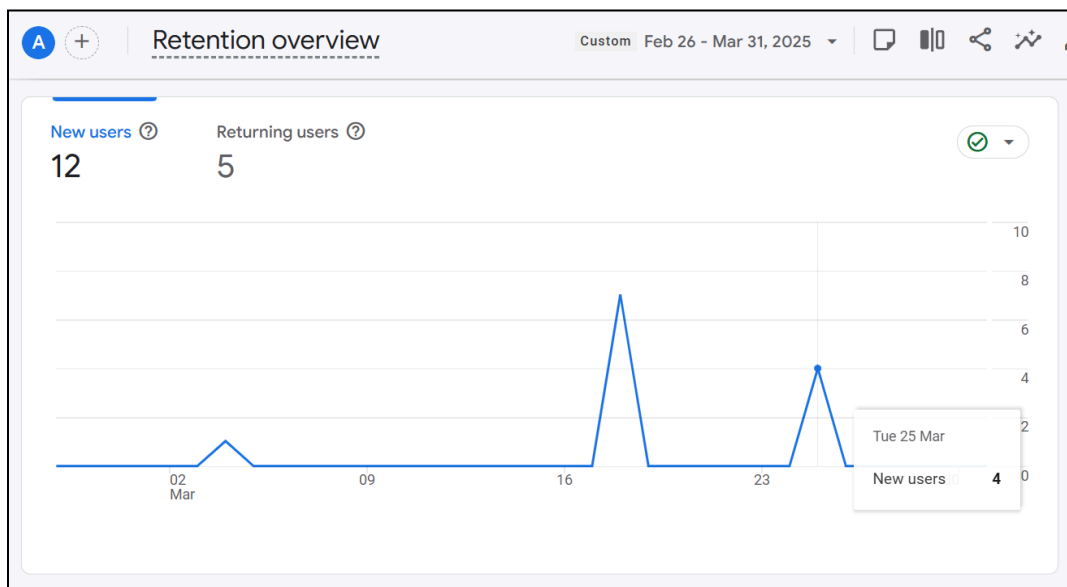
7. A line graph showing new vs. returning users over time. Total **12 new users** and **5 returning users**

### Inference and improvement:

- There are visible spikes on March 17 and March 25, indicating effective traffic generation on those dates (e.g., from campaigns or posts).
- Returning users are fewer (5), which points to a retention gap.

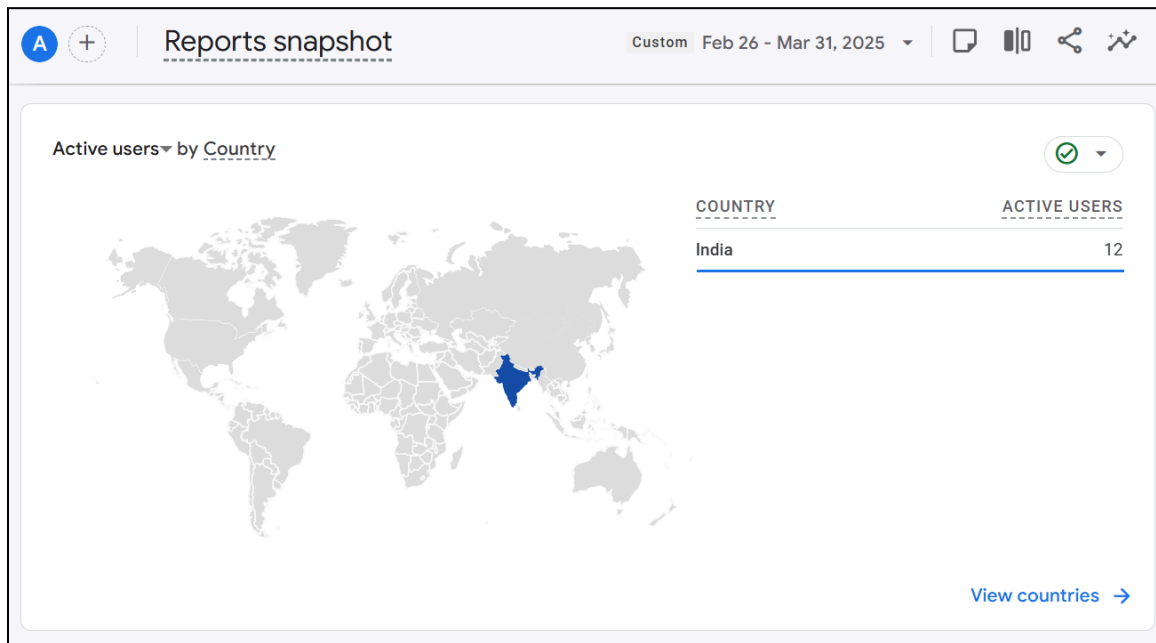
### Actionable improvements:

- Implement email follow-ups, push notifications, or loyalty incentives to boost user return rate.
- Analyze what content or source brought users on March 17 & 25 and replicate similar strategies.



## 8. Audience location map with country-wise user data.

**Inference:** Gives geographic insights into where most users are from, useful for regional targeting and localization. All the users are from country India



## Event Count of multiple user activities

**Inference:** User Engagement is pretty good and first visits need to be improved by refining SEO and Responsiveness of website

