**Aim:**

To Study Web Analytics Using Open Source Tool Like Matomo

**Requirements**:

* A web server with PHP and MySQL installed.
* Matomo software package.
* A sample website to track analytics.
* Web browser and internet connection.

**Theory:**

Web analytics refers to the process of collecting, measuring, and analyzing web data to optimize website performance. It provides insights into user behavior, session durations, page views, traffic sources, and conversion rates.

Matomo (formerly Piwik) is an open-source web analytics tool that allows website owners to track and analyze visitor statistics. Unlike cloud-based solutions, Matomo provides full data ownership and privacy control. It offers features such as:

* **Real-time analytics**: Tracks live visitors, their behavior, and site navigation.
* **User engagement tracking**: Records user interactions, including clicks, downloads, and form submissions.
* **Traffic analysis**: Identifies sources of traffic such as search engines, social media, and direct visits.
* **Goal tracking**: Measures conversion rates for specific actions such as purchases, sign-ups, or downloads.
* **Customizable dashboards**: Provides interactive dashboards with visual reports.

Procedure:

1. **Installation of Matomo:**
   * Download Matomo from the official website.
   * Extract and upload it to a web server.
   * Configure the database and complete the installation process.
2. **Integration with Website:**
   * Obtain the tracking code from Matomo’s dashboard.
   * Embed the JavaScript tracking code into the <head> section of the website.
3. **Data Collection and Analysis:**
   * Visit the website to generate test traffic.
   * Access Matomo’s dashboard to analyze visitor data.
   * Explore different reports, such as real-time visitors, traffic sources, and user behavior.
4. **Interpreting Reports:**
   * Study visitor trends, most visited pages, and session durations.
   * Analyze user flow and identify areas for optimization.
   * Evaluate bounce rates and conversion performance.

Observations:

* Matomo successfully tracked real-time visitors and their activities.
* The dashboard provided detailed insights into user behavior and website performance.
* Data visualization tools helped in identifying key performance indicators (KPIs).

**Conclusion:**

Matomo is a powerful open-source web analytics tool that allows complete data ownership and detailed insights into website traffic. By analyzing user interactions, businesses and website owners can optimize content, improve user experience, and enhance conversion rates. Using Matomo ensures better privacy control compared to third-party analytics services.