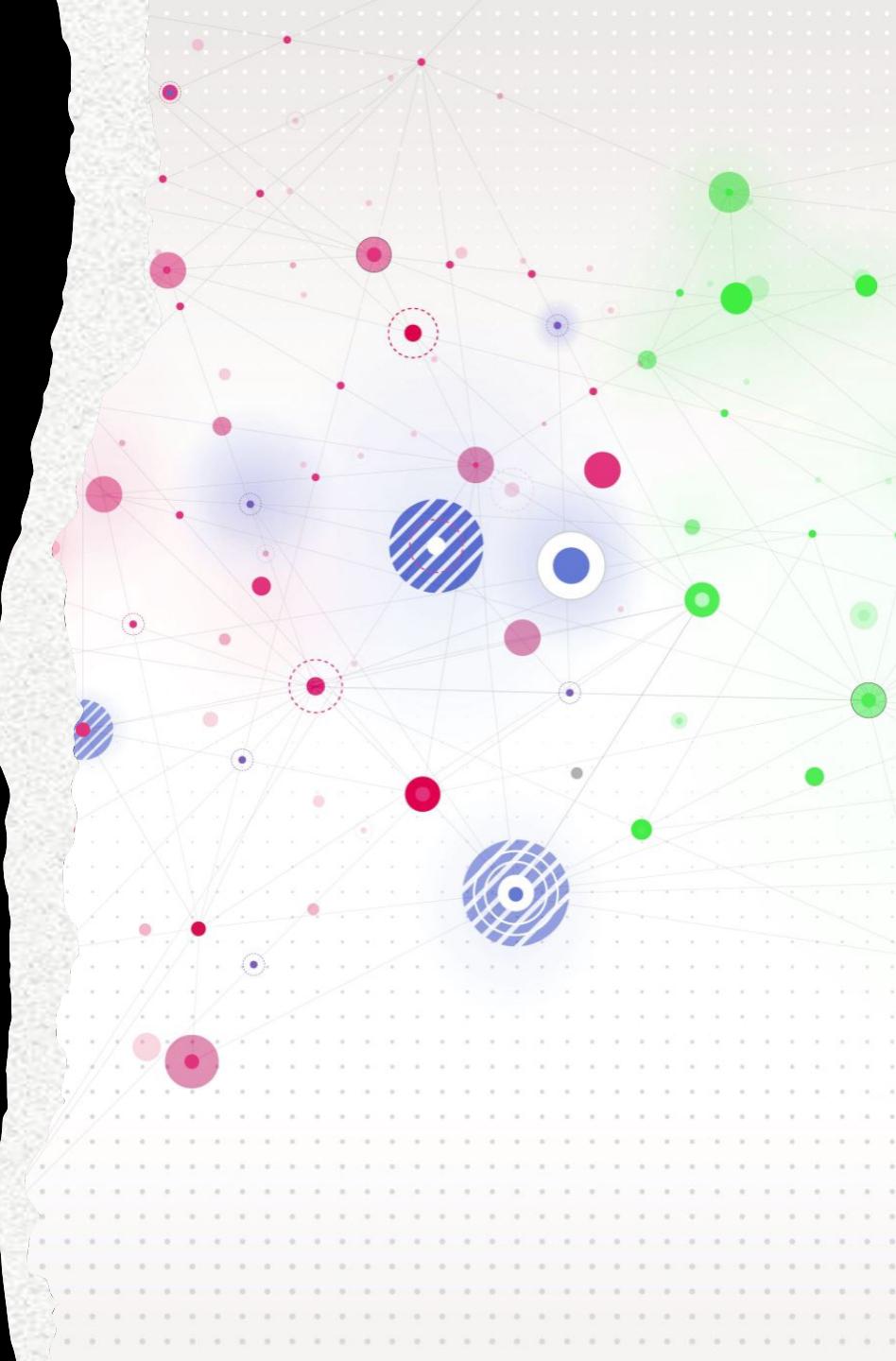


Collection and Reporting of Web Analytics Using Google Tag Manager

Hoang Pham
ICT Lecturer & Software Engineer



Structure of this course

- Daily lectures start at 13.00, up to 2 Breaks 15 mins
- Up to 4 Daily quizzes
- 1 Final assignment
- 3 ECTS

Topics to be covered

- Fundamental knowledge, key concepts, and basics of web analytics reporting
- Architecture, configuration, deployment and debug
- Exploring and expanding to more tools and techniques

Introduction

- Me:
 - Hoang Pham
 - Metropolia Alumni
 - M.Sc. in Network Engineering, Certified Scrum Master
 - 6 years in ICT with different roles
 - Entrepreneur, mentor new developers and IT students

Introduction - your turn

- You:
 - Who you are
 - Your area of expertise
 - Your objectives for learning

Why study web analytics

Why study web analytics

- Identifying and fixing problems related to your websites
- Struggling to get more sales on certain products
- Struggling to get more views on certain marketing campaign
- Having a spike in visitor traffic but not sure why
- Etc.

Why study web analytics

- Understand your customers to facilitate business decisions
- Know your best content so you can further focus on it or distribute your traffic to other content
- Track where your traffic come from and maybe improve other channel or put even more focus on that source

GDPR – General Data Protection Regulation

- A regulation in EU law on data protection and privacy in the European Union and the European Economic Area.
- It is the toughest privacy and security law in the world. Though it was drafted and passed by the European Union (EU), it imposes obligations onto organizations anywhere, so long as they target or collect data related to people in the EU. The regulation was put into effect on May 25, 2018. The GDPR will levy harsh fines against those who violate its privacy and security standards, with penalties reaching into the tens of millions of euros.

GDPR – General Data Protection Regulation

- Work in groups, study the website <https://gdpr.eu/> or other resources and answer the following questions:
 - Who should understand the “right to be forgotten”?
 - What were some of the biggest fines during 2020 & 2021 due to violation of GDPR?

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Opiskelu Metropoliassa ↓

Tutkimus-, kehitys- ja innovaatiotoiminta ↓

Palvelut ja asiakastyöt

Metropoliasta ↓

Yht...

**Tervetuloa opiskelemaan!**

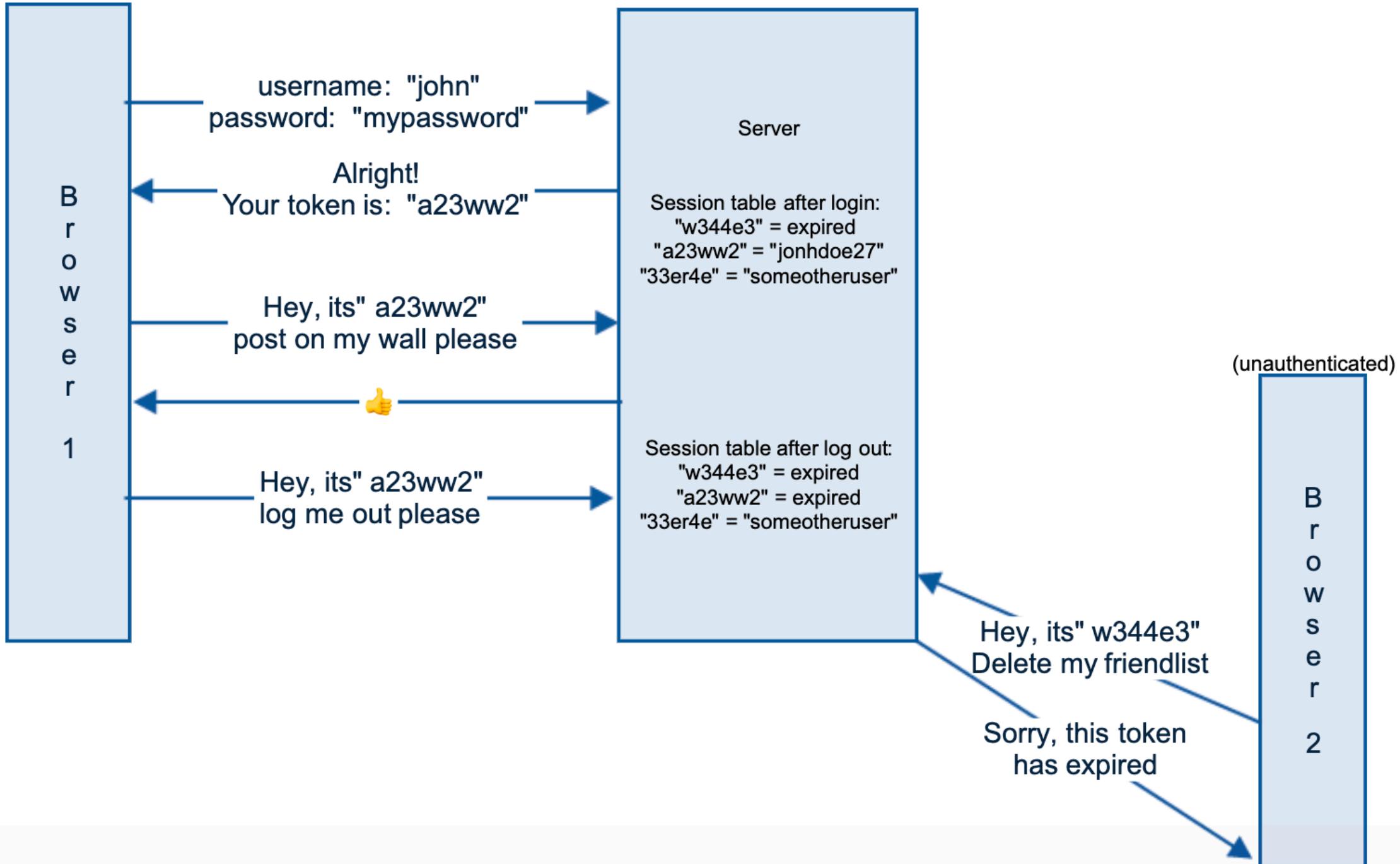
Understanding Cookie



- Sites tend to prompt you that they are using cookies to track your activities on the site in order to “enhance browsing experience” and ask your permission to let it happen, you are also invited to read cookie policy (which you won’t). If you refuse to accept that request, some of the sites even stop working
- So what is a cookie actually?

How does it “enhance” your browsing experience?

- If there is a login mechanism on the site you are browsing, there will be some cookie and session involved
- These mechanism are created to identify who is communicating with the web server
- Once you have successfully identified yourself as certain user, a session token is created and is to be sent with future requests.



Cookie



- A cookie is a piece of data that is kept within your browser and is sent automatically with every requests
- Cookie can be used to store session token to identify a logged in user

Cookie size



Cookie size

Web Browser	Maximum cookies	Maximum size per cookie
Google Chrome	180	4096 bytes
Firefox	150	4097 bytes
Opera	180	4096 bytes
Android	50	4096 bytes

Usage of cookie in web analytics

- <https://developers.google.com/analytics/devguides/collection/analyticsjs/cookie-usage>
- The Google Analytics JavaScript libraries use HTTP cookies to "remember" what a user has done on previous pages / interactions with the website.

Google Analytics

- A free tool provided by Google
- Google Analytics acquires user data from site visitors, generate customizable reports and visualize data such as number of users, bounce rates, average session duration, sessions by channel, page views, and more.

Why does Google offer tools for free?

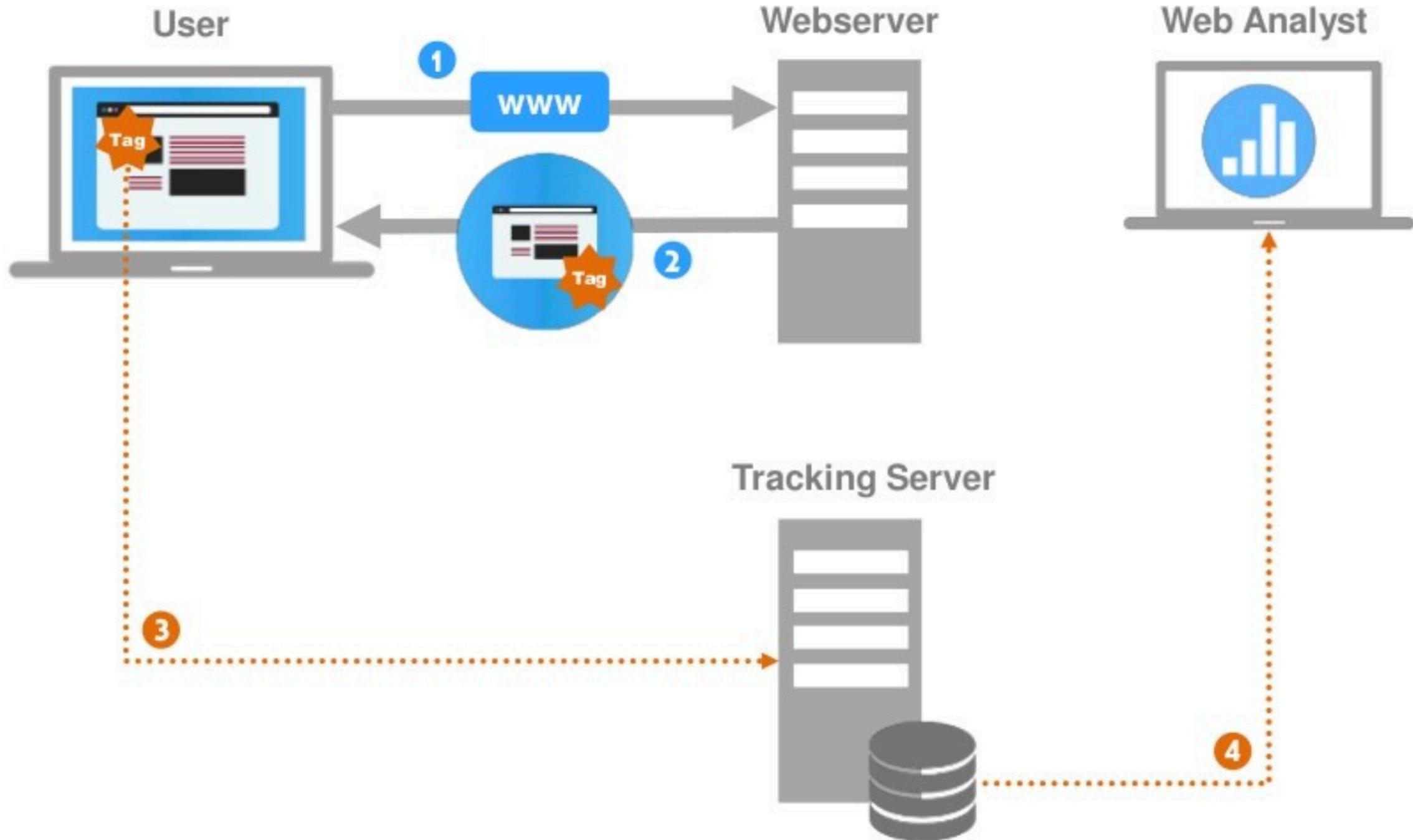
- Google has the budget to do so
- Short term investment for long term gain
- Attract new users with free tools
- Future upsell

Why does Google offer analytics tools for free?

- Embedding Google free analytics tools not only help you understand your users better but also help Google understanding you and your users better
- Google Analytics provide feedbacks to Google Adworks and improve the quality of Adworks
- Google Analytics plays important role on organic searches and Search Engine Optimization
- Removing Google Analytics could actually improve your ranking on search result as now Google Crawlers understand less of your page quality.

Definition of Tag

- Definition from Google
 - “Tags are tiny bits of website code (JavaScript) or pixels that let you measure traffic and visitor behavior, understand the impact of online advertising and social channels, use remarketing and audience targeting, test and improve your site, and more.”
 - Tags: Google Analytics, Facebook Pixel, Hotjar, and many more



What is Google Tag Manager and why would we use it?

- Google Tag Manager is a free tool that allows you to manage and deploy marketing tags (snippets of code or tracking pixels) on your website (or mobile app) without having to modify the code.
- Basically a handy tool for marketer so they don't have to rely on developers however it isn't such easy to use without some technical knowledge or prior training.

Playground: Own personal site

- Create your own website using a tool of your choice, as long as it is live and accessible to others
- If you have no prior knowledge in website creation, you can also use tools such as Wix to create your own site. Make sure the tool you choose to use allows embedding custom Javascript code.

After that

- Study the site content and try to implement Google Tag Manager onto your personal site

[https://marketingplatform.google.com/about/tag-
manager/](https://marketingplatform.google.com/about/tag-manager/)