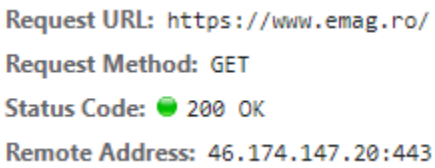
WWW Life cycle

We`re living in the era of internet, meaning that we spend more than 50% of our time online. The most basic thing we do day by day is browsing the internet. But what actually happens when we open our default browser and search something? There is a whole chain of actions that our device performs to show us the homepage of Google, YouTube, Facebook etc. Let`s take a closer look upon those actions.

1. We name ourselves clients. We are using our ISP (Internet Service Provider) services to navigate trough internet. But what do we do when we want to browse the internet? Obviously, first of all, we turn on our device and connect to the internet. After that we open our browser. What a browser is? A browser is an application software for accessing the World Wide Web (or WWW as we commonly know it) or a local website. Must notice that a web browser is not the same as a search engine. A search engine is a website that provides links to other websites (such as Google.com, Yahoo.com, Bing.com, AOL.com, Ask.com etc.). Good! Now we completed the first step (without considering the step in which we turn on our computer). After opening the web browser, we want to search for something, most often for a website or a search engine to search other things (like products, images, videos etc.). To do so we must enter a such thing as an URL. Abbreviated as Uniform Resource Locator, it is a reference to a web resource that specifies its location on a computer network and a mechanism for retrieving it. A typical URL could have the form `http://www.example.com/index.html`.
2. First step – check! What`s next? So, we`ve entered the URL but we know that computers don't really understand the human language, but it can translate it into computer language. Brace yourselves! DNS is stepping in. The Domain Name System is the equivalent of a phone book for the internet. The URL`s are converted into Internet Protocol (IP) addresses, so the DNS knows each address of each website. For example, typing Google`s URL (https://www.emag.ro) is the same as http://46.174.147.28/.
3. After completing the second step, the DNS sends the IP address to the browser, helping us get a step closer towards our goal. Now the browser knows the location of the website we are looking for. It`s browser`s time to send a request to the web server.
4. In this 4th stage, our browser send a request to the web server, in this case it sends a "GET" request because we need to get information from the server. But we also hope to get a "200" Status Code, meaning that the request and the answer were successful.



5. After the request reaches the web server, it will respond with HTML (Hyper Text Markup Language) documents. Those files contain the website structure, with other words, it sends what we want to see.
6. HERE IT COMES! This is the last step of the WWW cycle. After completing the steps above it`s time to receive what is ours. The web page we searched for. After a “long” trip of milliseconds, the web server sends to our browser the HTML document containing the information we searched for.

Let`s make a quick recap. First, we want to search for something (as we said, a website, search engine etc.). Then the DNS converts our typed URL into IP address, sending it back to the browser so he can find the location of the destination file. The browser then sends a request to the web server where the data is stored to return the HTML document to our browser. After those 5 steps we can see the result we expected on our screen.