How does the internet actually work?

The internet is an amazing place which we use every day nowadays. But have you ever wondered what the internet actually is? Or how it works? Worry not, that’s why I’m here for you!

Imagine the internet as a giant wire going through the whole planet. On this wire, there are small connections, so called “clients”. Some of these clients are the devices you own. These can be a PC, phone, tablet or even your smart fridge. However, some of these clients need to be online 24/7, so other clients can reach them and ask them for information whenever they like to. Even if it is 3am when you usually are asleep or heading towards the fridge for a midnight snack. Those, online all-the-time clients, are called “Servers”.

“But how do you connect to these anyways?” you might be asking now. Well, let’s imagine you want to spend some time on YouTube. You open your browser and type in “youtube.com” (or open the mobile app which does that automatically for you) and boom! The site and all of its content is there on your screen! Nice and fast, huh? But what happened in the background? How did your browser (or your app) know, what it has to do and what “youtube.com” even is?

When you type in a domain name, it is first sent from the client (your device which makes the request) to your ISP, or Internet Service Provider. Then, it gets redirected to the DNS (= Domain Name System) which will look up the address for you.   
  
Imagine a DNS like a telephone book of the internet. Every single domain and IP address are stored in there. When you type in a domain (like youtube.com), the actual IP address is looked up inside the DNS. When there is a entry for it, the DNS reports the IP address back to your ISP, which then directs that address further to the client you’re using. With that, you can also use the IP address to directly call the site.   
  
A helpful website to help you finding the IP address of a domain is <http://www.nslookup.io>