

Cookies and Sessions

Let's say we go onto Amazon, and we search for the Nintendo switch. We decide to go ahead and add it to basket. So now when we look inside our basket, we can see we have one item. Now what if we abandon our cart without buying anything and want to access it again. Well, as soon as you add an item to the cart, Amazon creates a **cookie**, and the cookie is stored on your browser. Amazon uses this cookie to store all sorts of information about us. If we delete the Amazon cookies stored on our browser, Amazon is forced to forget our last browsing session.

On the internet, cookies are used widely to save these browsing sessions and it goes beyond just saving your last actions on a website. You might even see that if you go to Facebook for instance, it reminds you of the things that you wanted to buy on Amazon. Cookies and sessions are essentially how retargeting ads work.

When you go onto chrome and type in "Amazon.com", the browser makes a GET request to Amazon requesting for their home page. Amazon server then responds to that request and sends over the HTML, CSS and JavaScript files that are needed for your browser to be able to render the Amazon website. Now, let's say that we decided to add a computer to our cart, well that is equivalent to making a post request to the amazon server saying that we would like to buy a computer. At this moment, Amazon server creates a cookie that contains that data and when it responds to the post request, the cookie gets sent along and the browser gets told to save the cookie. So, the next time you make a get request to the amazon server, that cookie gets sent along with your get request to allow the server to be able to identify who you are and see if you had any previous sessions on amazon.

Now, a session is a period of time when a browser interacts with a server. So, usually when you log into a website, that's when your session starts and that's when your cookie gets created. Inside the cookie, you'll have your user credentials that says this user is logged in and has been successfully authenticated. So that means as you continue to browse the website you won't be asked to login again. When you try to access a page that requires authentication, it maintains your session until the point when you log out which is when the session ends and the cookie that's related to the session is destroyed.