

JavaScript Cookies

COOKIES


- A cookie is a piece of data that is stored on your computer to be accessed by your browser.
- Cookies are saved as key/value pairs.
- Web Browsers and Servers use HTTP protocol to communicate and HTTP is a stateless protocol.
- Stateless protocol treats each request independent. So, the server does not keep the data after sending it to the browser.
- The data will be required again. Here come cookies into a picture.



COOKIES

- With cookies, the web browser will not have to communicate with the server each time the data is required.
- Instead, it can be fetched directly from the computer. But for a commercial website, it is required to maintain session information among different pages.
- Using cookies is the most efficient method of remembering and tracking preferences, purchases, commissions, and other information required for better visitor experience or site statistics.

COOKIES

- Your server sends some data to the visitor's browser in the form of a cookie.
 - The browser may accept the cookie. If it does, it is stored as a plain text record on the visitor's hard drive.
 - Now, when the visitor arrives at another page on your site, the browser sends the same cookie to the server for retrieval.
 - Once retrieved, your server knows/remembers what was stored earlier.
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LIMITATION

- Because the cookie is stored on the user's computer, it does not require any server space no matter how many users you have.
- Cookies are used to save user preferences, customize data, remember the last visit, or to keep track of items in an order while a user browses.
- The cookie specification introduced by Netscape also places limits on cookies. These limits are:
 - 310 total cookies
 - 4 kilobytes per cookie
 - 20 cookies per server or domain



DOCUMENT.COOKIE

- Cookies are stored in the document.cookie JavaScript object which in your browser currently holds the following name/value pairs:

`_ga=GA1.2.2133800177.1570532831;`

`Chirp%5CSecureToken=197fjv8e5c0hlf8gm3nplvcukd`

- Each name/value pair displayed above represents a single cookie.
- A single cookie can hold up to 4kb of text, and for each domain name your browser will normally permit up to 20 cookies.

PRIVACY

- Cookies can only be read by the site that created them, or a site 'underneath' the site that created them.
- This prevents other websites from stealing cookies.
- Cookies can be temporary or persistent:
 - Temporary cookies remain available only for the current browser session.
 - Persistent cookies remain available beyond the current browser session. Stored in a text file on a client computer.



TYPES OF COOKIES


- There are three different types of cookies.
 - First Party Cookies are written by your site and can only be read by your site.
 - Third Party Cookies are created by advertising in your page that is loaded from a third party site. These can only be read by the advertising code on any site displaying the same ads.
 - Session Cookies are not actually written to a file but are stored in the browser itself. These cookies only last as long as the browser is open.



PARAMETERS

- Cookies are a plain text data record of 5 variable-length fields
 - Expires : The date the cookie will expire. If blank, the cookie will expire when the visitor quits the browser.
 - Domain : The domain name of your site.
 - Path : The path to the directory or web page that set the cookie. This may blank if you want to retrieve the cookie from any directory or page.
 - Secure : If this field contains the word "secure", then the cookie may only be retrieved with a secure server. If this field is blank, no such restriction exists.
 - Name=Value : Cookies are set and retrieved in the form of key-value pairs.

STALE COOKIES

- A cookie will reside in your browser until:
 - It is deleted either by you or by the website that set it;
 - It is 'rolled out' to make way for a newer cookie; or
 - It reaches it's expiry date.
 - As mentioned above, your browser sets a limit both on the size and the number of cookies it allows for a single domain.
 - If the limit on the number of cookies has already been reached and a new one is set, the oldest cookie will be expired to make way for the new one (FIFO).
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STALE COOKIES

- One common oversight is in setting a cookie with an expiry date (1 year for example) and then never re-setting the cookie.
- After one year, regardless of other actions, the cookie will expire.
- If you have a website that relies on cookies to save user preferences or identify repeat customers you should make sure to re-set the cookie every time they visit.

