Chapter 4-Cookies

JavaScript Cookies

- A cookie is an amount of information that persists between a server-side and a client-side. A web browser stores this information at the time of browsing.
- A cookie contains the information as a string generally in the form of a name-value pair separated by semi-colons. It maintains the state of a user and remembers the user's information among all the web pages.

What are Cookies?
- Cookies are data, stored in small text files, on your computer.
- When a web server has sent a web page to a browser, the connection is shut down, and the server forgets everything about the user.
- Cookies were invented to solve the problem "how to remember information about the user":
- When a user visits a web page, his/her name can be stored in a cookie.
- Next time the user visits the page, the cookie "remembers" his/her name.

Cookies are saved in name-value pairs like:

username = John Doe

Create a Cookie with JavaScript
- JavaScript can create, read, and delete cookies with the document.cookie property.

document.cookie = "username=John Doe";

- You can also add an expiry date (in UTC time). By default, the cookie is deleted when the browser is closed:

document.cookie = "username=John Doe; expires=Thu, 18 Dec 2023 12:00:00 UTC";

- With a path parameter, you can tell the browser what path the cookie belongs to. By default, the cookie belongs to the current page.

document.cookie = "username=John Doe; expires=Thu, 18 Dec 2013 12:00:00 UTC; path=/";

- Read a Cookie with JavaScript

let x = document.cookie;

document.cookie will return all cookies in one string much like: cookie1=value; cookie2=value; cookie3=value;

Change a Cookie with JavaScript

```
document.cookie = "username=John Smith; expires=Thu, 18 Dec 2013 12:00:00 UTC; path=/";
```

The old cookie is overwritten.

Delete a Cookie with JavaScript

You don't have to specify a cookie value when you delete a cookie.

```
document.cookie = "username=; expires=Thu, 01 Jan 1970 00:00:00 UTC; path=/;";
```

- You should define the cookie path to ensure that you delete the right cookie.
- Some browsers will not let you delete a cookie if you don't specify the path.

Examples:

When you assign a string to document.cookie, the browser parses it as a cookie and adds it to its list of cookies.
There are several parts to each cookies, many of them optional.

Syntax: -

document.cookie = "name=value";

document.cookie = "name=value; expires=date; domain=domain; path=path; secure";

document.cookie = "name=value; max-age=inSecond; domain=domain; path=path; secure";

Ex:-

document.cookie = "username=geeky";

document.cookie = "username=geeky; expires=Monday, 3-Sep-2018 09:00:00 UTC";

Note - name-value pair must not contain any whitespace character, Commas or semicolons.
Ex: - username=geeky shows;

Not allowed

Optional Cookies Attribute:-

max-age
expires
domain
path
secure

Whenever you omit the optional cookie fields, the browser fills them in automatically with reasonable defaults.

| Attributes	Description
expires	It maintains the state of a cookie up to the specified date and time.
max-age	It maintains the state of a cookie up to the specified time. Here, time is given in seconds.
path	It expands the scope of the cookie to all the pages of a website.
domain	It is used to specify the domain for which the cookie is valid.

Creating a cookies

1st method

Example 1:

```
<html>
  <body>
    <h1>cookies</h1>
  <script>
    document.cookie="username=neha";---------------Creating cookies(set cookies)
    alert(document.cookie);
  </script>
  </body>
</html>
```

2nd Method
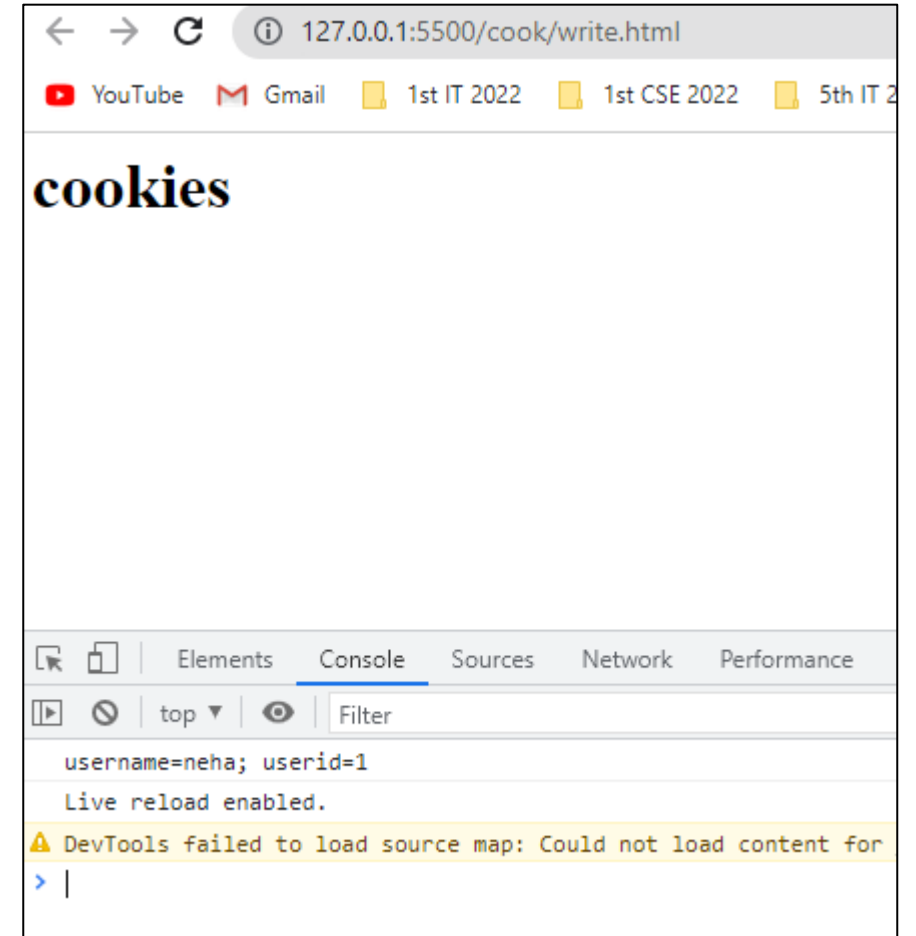
Example:

```
<form action="" name="myform" method=""post">
    Name:<input type="text" name="name"><br><br>
    Email:<input type="email" name="email"><br><br>
    Language:<input type="text" name="language"><br><br>
    <input type="button" value="setcookies" name="set" onclick="setcookies()">
    <input type="button" value="getcookies" name="get" onclick="getcookies()">
</form>
```

```
function setcookies()
    {  document.cookie="username=" + document.myform.name.value;
       document.cookie="email=" + document.myform.email.value;
       document.cookie="language=" + document.myform.language.value;
    }
    alert(document.cookie);
```


127.0.0.1:5500 says

username=john; email=john@gmail.com; language=english

Name	Value	Domain	Path	Expires / Max-...	Size	HttpOnly	Secure	SameSite	Partition Key	Priority
language	english	127.0.0.1	/cook	Session	15					Medium
email	john@gmail.com	127.0.0.1	/cook	Session	19					Medium
username	john	127.0.0.1	/cook	Session	12					Medium

Example:

```html
<html><body><h1>cookies</h1>
    <form action="" name="myform" method=""post">
      Name:<input type="text" name="name"><br><br>
      Email:<input type="email" name="email"><br><br>
      Language:<input type="text" name="language"><br><br>
      <input type="button" value="setcookies" name="set" onclick="setcookies()">
      <input type="button" value="getcookies" name="get" onclick="getcookies()">
    </form>
  <script>
    function setcookies()
    {
      document.cookie="username=" + document.myform.name.value;
      document.cookie="email=" + document.myform.email.value;
      document.cookie="language=" + document.myform.language.value;
    }
```
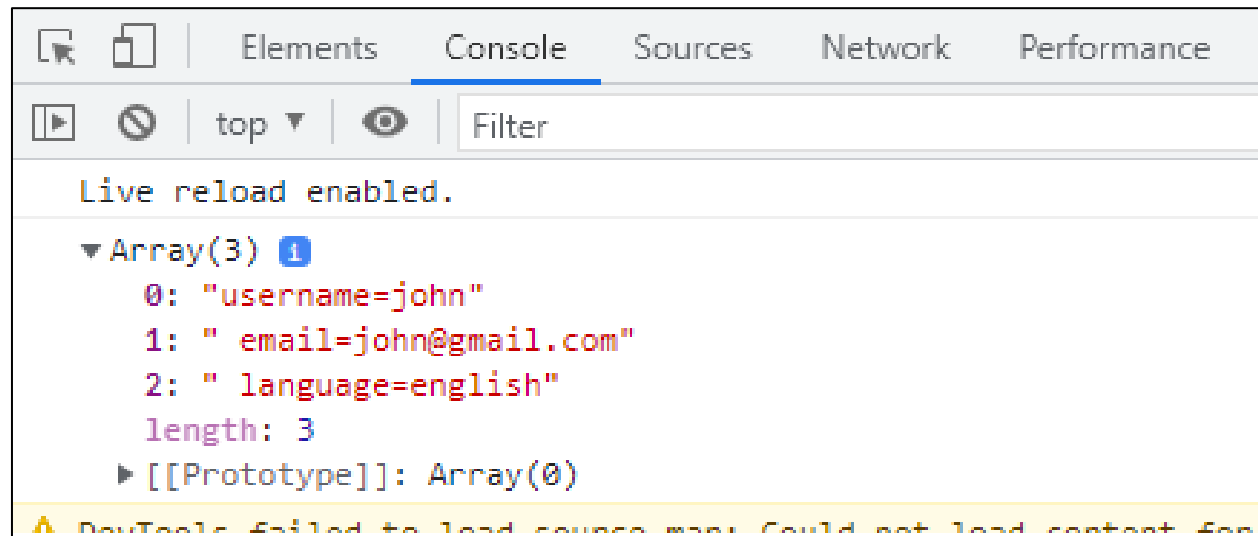
```
//username=neha;email=123@gmail.com;la
nguage=english
    function getcookies()
    {
      var cookiesarray=document.cookie;
      alert(cookiesarray);
    }
  </script></body></html>
```
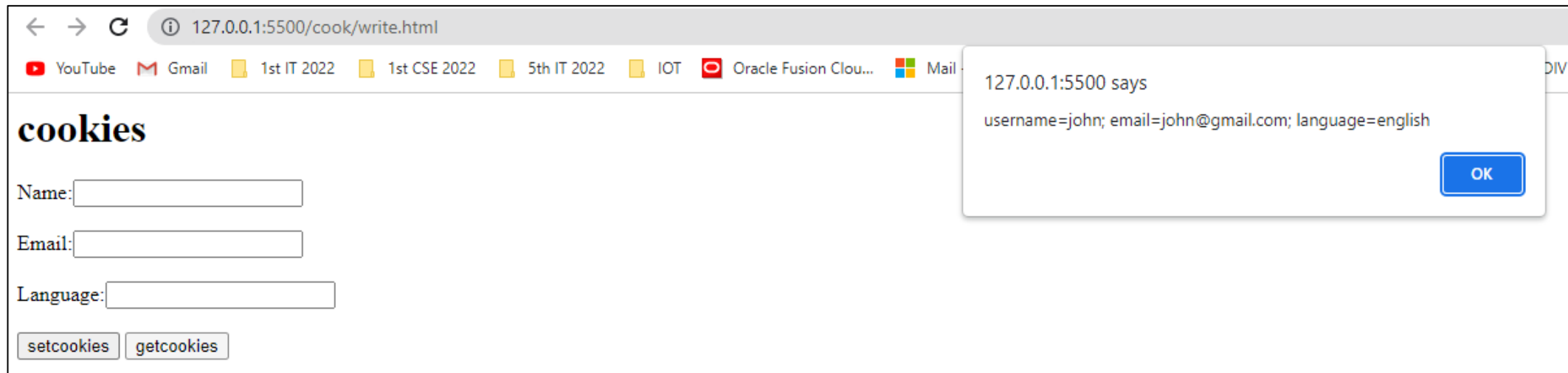
```
function getcookies()
    {
        var cookiesarray=document.cookie.split(";");
        console.log(cookiesarray);

    }
```

```
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    Live reload enabled.

    ▼ Array(3) ℹ
        0: "username=john"
        1: " email=john@gmail.com"
        2: " language=english"
        length: 3
      ▶ [[Prototype]]: Array(0)
  ⚠ DevTools failed to load source map: Could not load content for
```

```
function getcookies()
    {

        var cookiesarray=document.cookie.split(";");
        for(var i=0;i<cookiesarray.length;i++)
        {
        var valuearray=cookiesarray[i].split("=");
        console.log(valuearray);
        }
    }
```

Example1

```html
<html>
  <body>
    <h1>cookies</h1>
    <form action="" name="myform" method=""post">
      Name:<input type="text" name="name"><br><br>
      Email:<input type="email" name="email"><br><br>
      Language:<input type="text" name="language"><br><br>
      <input type="button" value="setcookies" name="set" onclick="setcookies()">
      <input type="button" value="getcookies" name="get" onclick="getcookies()">
    </form>
  <script>
    function setcookies()
    {
      document.cookie="name=" + document.myform.name.value;
      document.cookie="email=" + document.myform.email.value;
      document.cookie="language=" + document.myform.language.value;
    }
    //alert(document.cookie);
    //username=neha;email=123@gmail.com;language=english
```
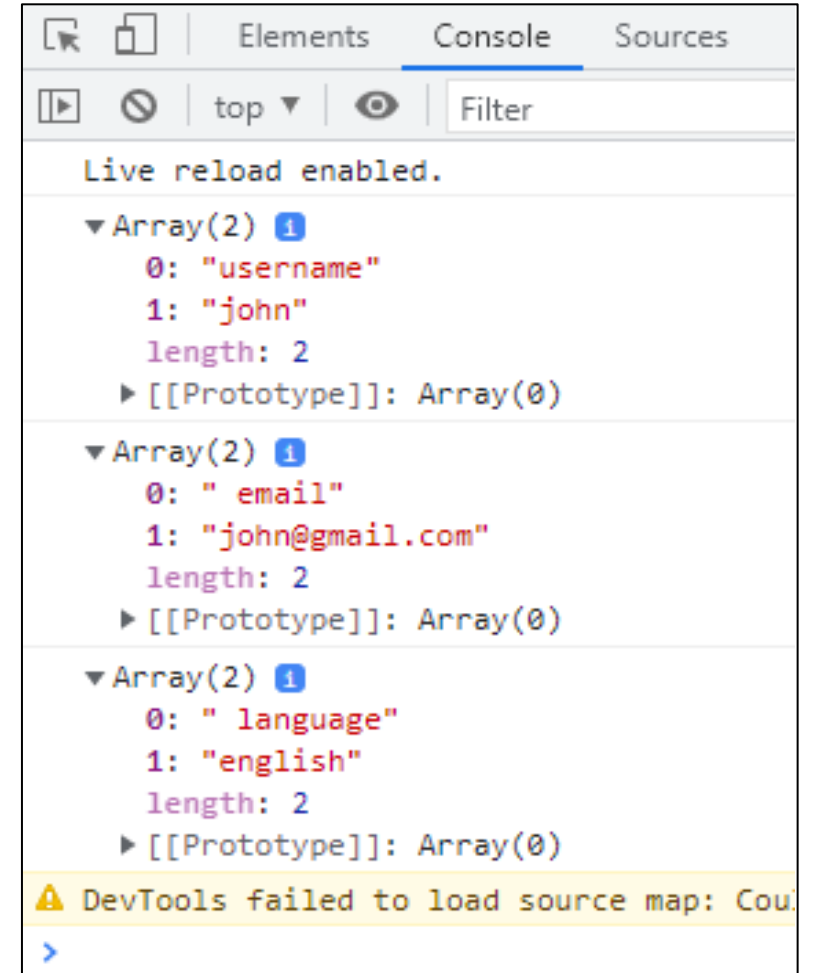
```
function getcookies()
    {
       var cookiesarray=document.cookie.split(";");
       for(var i=0;i<cookiesarray.length;i++)
       {
       var valuearray=cookiesarray[i].split("=");
       if(valuearray[0].trim() =='name')
       {
           document.myform.name.value=valuearray[1];
       }
       else if(valuearray[0].trim() =='email')
       {
           document.myform.email.value=valuearray[1];
       }
       else  if(valuearray[0].trim() =='language')
       {
           document.myform.language.value=valuearray[1];
       }
       }
    }
   </script>
   </body>
</html>
```

Cookies value

Name	Value	Domain	Path	Expires / Max-Age	Size	H..	Secure	SameSite
language	sdfds	127.0.0.1	/cook	Session	13			
email	safasd	127.0.0.1	/cook	Session	11			
name	sdfa	127.0.0.1	/cook	Session	8			

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Only show cookies with an issue

Cookies expiry property

```html
<html>
  <body>
    <h1>cookies</h1>
    <form action="" name="myform" method="""post">
      Name:<input type="text" name="name"><br><br>
      Email:<input type="email" name="email"><br><br>
      Language:<input type="text" name="language"><br><br>
      <input type="button" value="setcookies" name="set" onclick="setcookies()">
      <input type="button" value="getcookies" name="get" onclick="getcookies()">
    </form>
  <script>
    function setcookies()
    {
      document.cookie="name=" + document.myform.name.value+"; expires=Thu, 28 Jan 2024 00:00:00 UTC";
      document.cookie="email=" + document.myform.email.value+"; expires=Thu, 28 Jan 2024 00:00:00 UTC";
      document.cookie="language=" + document.myform.language.value+"; expires=Thu, 28 Jan 2024 00:00:00 UTC";
    }
    //alert(document.cookie);
    //username=neha;email=123@gmail.com;language=english
```

```
function getcookies()
    {
        var cookiesarray=document.cookie.split(";");
        for(var i=0;i<cookiesarray.length;i++)
        {
        var valuearray=cookiesarray[i].split("=");
        if(valuearray[0].trim() =='name')
        {
            document.myform.name.value=valuearray[1];
        }
        else if(valuearray[0].trim() =='email')
        {
            document.myform.email.value=valuearray[1];
        }
        else  if(valuearray[0].trim() =='language')
        {
            document.myform.language.value=valuearray[1];
        }
        }
    }
  </script>
  </body>
</html>
```

Cookies value

Name			Value	Domain	Path	Expires / Max-Age	Size	H..	Se
language			xyz	127.0.0.1	/cook	2024-01-28T00:00:00.000Z	11		
email	8		xyz	127.0.0.1	/cook	2024-01-28T00:00:00.000Z	8		
name			xyz	127.0.0.1	/cook	2024-01-28T00:00:00.000Z	7		

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Filter   ☐ Only show cookies with an issue

Delete an cookie:

<u>**Set a cookie**</u>

```
<html>
   <body>
      <h1>cookies</h1>
         <script>
      document.cookie="adderss=borivali ; expires=Thu, 28 Jan 2024 00:00:00 UTC";
   </script>
   </body>
</html>
```

<u>**Delete cookie**</u>

Method 1:-setting past date

```
<script>
      document.cookie="adderss=borivali ; expires=Thu, 28 Jan 2021 00:00:00 UTC";
   </script>
```

Method 2:-setting an empty string

```
<script>
      document.cookie="adderss= ; expires=Thu, 28 Jan 2021 00:00:00 UTC";
   </script>
```

Delete an cookie:

```html
<html>
    <body>
        <h1>cookies</h1>
            <script>
        document.cookie="address=borivali ; max-age="+60*60*24*10;
    </script>
    </body>
</html>
```

```html
<html>
    <body>
        <h1>cookies</h1>
            <script>
        document.cookie="address=borivali ; max-age="-60;
    </script>
    </body>
</html>
```

References:

Write a cookie:
https://www.youtube.com/watch?v=Pl7p-gPGH5c

Read a cookie:
https://www.youtube.com/watch?v=IRLXrVX12Oc

Delete an cookie
https://www.youtube.com/watch?v=Q2ClLmlZb-o