8. Using Cookies

Cookie Basics

- Cookies are domain specific text files (in special format) for maintaining user information such as user's name, address, phone number, and email address.
- A cookie file created by one domain cannot be open and read by another domain.
- Cookies may be also used to track user's preferences and habits of using a Web site
- You may also use cookies as counters
- They are sent and stored on the user's computer disk.
- Users of cookies
  - Personal start pages (general users)
  - Site developer
  - Advertiser (profile visitor's interest)
  - E-companies -- what you bought
  - Dead-end path identification (Web developer)
- Original documentation about cookies: http://www.netscape.com/newsref/std/cookie_spec.html

- Cookie format:
  document.cookie = "cookieName = cookieValue;
  [; exprires=Date]
  [; path=URLpath]
  [; domain=DomainName]
  [; secure]"

What JavaScript cookies cannot do from user's hard disk

- Read e-mail
- Steal other sensitive information

Where and how to store cookies

- Cookies are embedded in the data sent to the browser, the browser can block the cookie information
- JavaScript only has one way to write cookies: a predetermined cookie location controlled by the browser
- Netscape Navigator stores cookies in **cookies.txt** file
- IE stores cookies as separated files in the Cookies folder or directory

Activities about Cookies

- Baking a cookie
- Reading a cookie
- Showing cookies
- Using cookies as counters
- Deleting cookies
- Handling multiple cookies

How to Set a Cookie:

1. Prepare text field element(s) within a form to ask the user name when the page is loaded
2. Set user name, expiration date, path, and domain information into the cookie text string
3. When the user complete the name entering, use onBlur event handler to call a function to write cookie:

```
 document.cookies = "userName=" +username+";expires="
+expireDate.toGMTString())
```

```
cookieName = cookieValue; exprires=expirationDateGMT; path=URLpath;
domain=siteDomain
```

cookieValue: the only mandatory part of the cookies and is normally given as a user name

expires: when reached, the browser will automatically delete the cookie

path: where the cookie is stored

domain: site domain

```
expireDate = new Date;
expireDate.setMonth(expiredate.getMonth()+6)
```

How to Read a Cookie:

```
If (document.cookie !="")
   {
        document.write("Hello, "+document.cookie.split("=")[1])
  }
```

How to read all cookies from your site:

```
If (document.cookie =="")
   {
        document.write("No cookie")
  }
else
 {
 thisCookie = document.cookie.split("; ")

 for(n = 0; n < thisCookie.length; n++)
   {
    document.write("Cookie name is ' " + thisCookie[n].split("=")[0])
    document.write(" ' Cookie name is ' " + thisCookie[n].split("=")[1]+" '<BR>")
   }
```

Example 8-1: Testing a cookie using JavaScript without a CGI program.

```
<html>
<!-- cookiestest.html -->
<head>
<title>Testing Cookie without CGI</title>
<script language="javascript"><!--
function cookieUpdate() {
 document.cookie=document.form1.newCookie.value
 location.reload(true)
}
</script>
</head>
<body>
<script language="javascript">
document.write("The current cookie value is: '" + document.cookie +
"'")
</script>
<form action="" name="form1">
<p>enter your email address: <input type="text" size="60"
name="newCookie"></p>
<input type="button" name="setcookie" value="set cookie"
onclick="cookieUpdate()">
</form>
</body>
</html>
```