

* Steps to Work With Cookies:-

step 1: Create object for HttpCookie class

syntax: `HttpCookie class, objectName = NEW HttpCookie class ("cookie Name");`

example: `HttpCookie Obj1 = NEW HttpCookie ("a");`

step 2: Store the data into cookie

syntax: `Cookie objectName. Value = "Data";`

example: `Obj1. Value = "10";`

Set the other properties based on Requirement

:

step 3: Add the Cookie to cookies collection of Response object

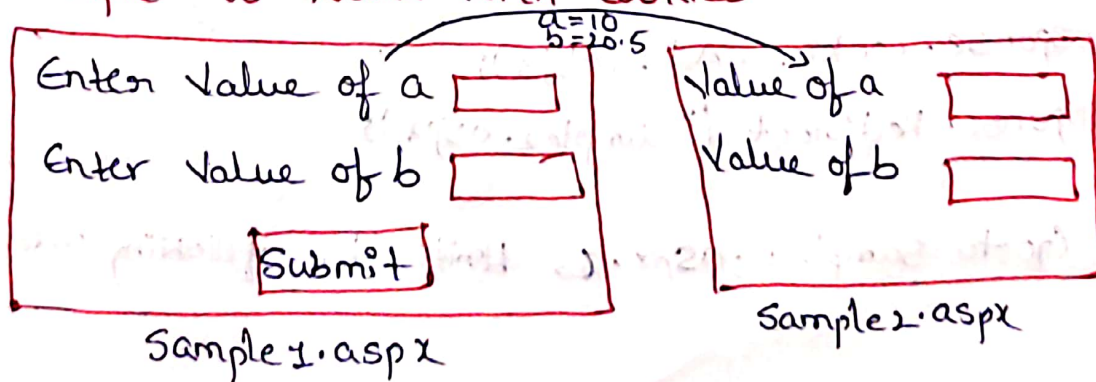
syntax: `Response. cookies. Add (HttpCookie class object);`

example: `Response. cookies. Add (Obj1);`

step 4: Repeats the above steps for Number of cookies.

step 5 (Optional): Redirect the request to the Target Page.

* Example to Work With Cookies



Create a NEW Website With the Name WebApp cookies.

→ Create a NEW two Web pages With the Name sample1.aspx and sample2.aspx.

→ Write the following code for submit button of Sample.aspx.

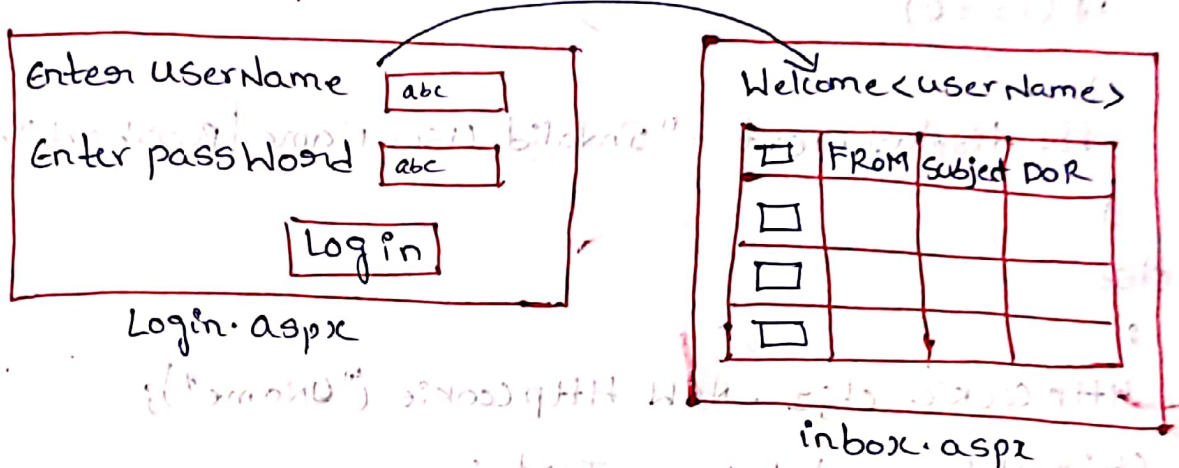
```
Protected void btnsubmit_click ( " " )  
{  
    HttpCookie obj1 = NEW HttpCookie ("a");  
    obj1.Value = txt Sample 1.Text;  
    obj1.Expires = DateTime.Now.Add Days (4);  
    Response.Cookies.Add (obj1);  
    HttpCookie obj2 = NEW HttpCookie ("b");  
    obj2.Value = txt Sample 2.Text;  
obj2.Expires = DateTime.Now;  
    Response.Cookies.Add (obj2);  
    HttpCookie obj3 = NEW HttpCookie ("Institute");  
    obj3.Value = "Namesh it";  
    obj3.Expires = DateTime.Now.Add Days (7);  
    Response.Cookies.Add (obj3);  
    Response.Redirect ("Sample2.aspx");  
}
```

→ Go to sample2.aspx & Write the following code.

protected void page_Load ()

```
{
    1st sample 1. Text = Request.Cookies["a"].Value;
    1st sample 2. Text = Request.Cookies["b"].Value;
}
```

* Login Example With Cookies?



→ Create a NEW Webpages With the Name login.aspx and inbox.aspx. design both the pages. & go to login.aspx.cs (file) and Write the following code.

using System.Data;

using System.Data.SqlClient;

protected void btnLogin_Click ()

{

String sqlconString = "Server = ; user Id = ;"

SqlConnection con = new SqlConnection (sqlconString);

String query = "Select count(*) From users Where
Username = @P1 and password = @P2";

SqlCommand cmd = new SqlCommand (query, con);

cmd.CommandType = CommandType.Text;


```

cmd. parameters. Add With Value ("@P1", txtUserName.Text);
cmd. parameters. Add With Value ("@P2", txtPassword.Text);
con. open ();
int i = (int)cmd. ExecuteScalar ();
con. close ();
if (i == 0)
{
    lbl display. Text = "Invalid, UserName | Password";
}
else
{
    HttpCookie obj1 = new HttpCookie ("UName");
    obj1. Value = txtUserName. Text ;
    if (chk Remember. checked)
        obj1. Expires = DateTime. Now. Add days (7);
    Response. Cookies. Add (obj1);
    Response. Redirect ("Inbox.aspx");
}

```

→ Go to inbox.aspx.cs file Write the following code.

```

protected void page_load (
{
    lbl display. Text = "Welcome" + Request. Cookies
    ["UName"]. Value;
}

```

→ Advantages using cookies:-

1. Simple implementation.
2. No server resources are required.
3. Compared with every string cookies can store more amount of data.

→ Disadvantages using cookies:-

1. Security concerns. as cookies stores the data in plain text format cookies can't be used to transfer sensitive information like password etc.

2. Size limitation:

Though Every cookie can transfer 4Kb of data we can't use cookie to transfer large amount of data.

3. cookies are browser dependent. if user is blocking the cookies or deleting the cookies as a developer we cannot restrict the user.

* Working With Sessions In ASP.NET:-

→ A session is the memory created for every client at server side. At first request of the client web server will allocate memory for the client, this memory is known as session and the unique Id allocated for this session is known as session Id. The data related to that particular client or user will be stored in this session.

→ One user or client session is entirely different from the other user or other client session.

→ Once session is created the request and response from them always will travel using the session Id only.

→ The webserver will identify the first request of the client is if the request is coming without session Id.

→ A session will be destroyed or killed in two scenarios.

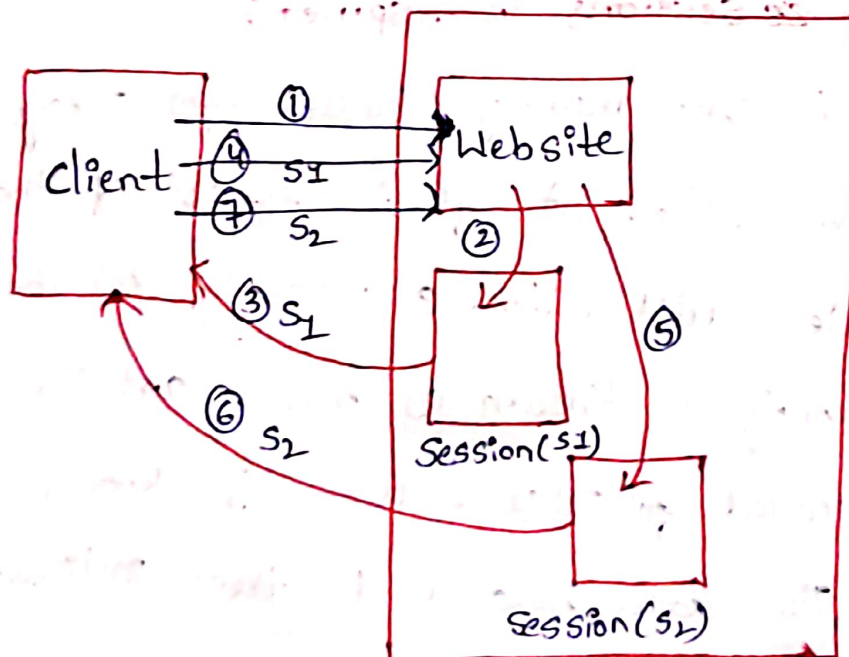
1. When session time out period completes

2. When developer kills the session programmatically using session.abandon method.

→ The default time^{out} period of a session is 20min

- One user or client session is entirely different from the other user or other client session.
- Once session is created the request and response from them always will travel using the session Id only.
- The webserver will identify the first request of the client is if the request is coming without session Id.
- A session will be destroyed or killed in two scenarios.
 1. When session time out period completes
 2. When developer kills the session programmatically using session.abandon method.
- The default time^{out} period of a session is 20min

* Working Nature of session in Asp.net When there is no data stored in session.



step 1:- Client sends first request to the web server

step 2:- Client request is processed, memory allocation is done for the client and unique id is allotted to the client, The Memory is known as session and the id is known as session id.

step 3:- Response to the client is delivered along with session id.

step 4:- client sends next request with the session id.

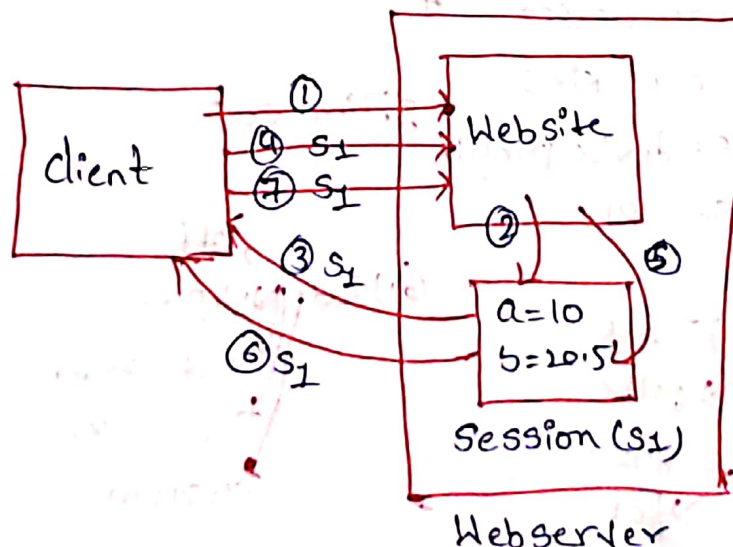
step 5:- (i) once response is delivered to the client, the session at server is destroyed.

step 5:- Server will create new session for the client request with new session id.

step 6:- Response is delivered to the client with new session id.

step 7:- client sends next Request with new session id.

* In case data is stored within the session working nature of the session will change like in following scenario.



Step 1: Client sends first request to the web server.

Step 2: Server will process the client request, creates the session, stores the user data within the session and allocates session Id.

Step 3: Response is delivered to the client along with session Id.

→ Once Response is delivered to the client session will not be destroyed at server.

Step 4: client sends next Request along with session Id.

Step 5: Client Request is processed and stored in same session with same session Id.

Step 6: Response to the client is delivered with same session Id.

Step 7: client will send the next request with the same session Id. This process is repeated until the session is destroyed.

* Properties with session in Asp.net

1. Contents
 - Auto detect
2. Cookie mode
 - use cookies
 - use device profile
 - use URL
3. Count
4. Is cookie less
 - True
 - false
5. Is NEW session
 - True
 - false
6. Mode
 - off
 - In proc
 - State server
 - Sql server
 - custom
7. Session Id
8. Time out

11. Value

1. Content:-

This property is used to get the contents of the sessions. i.e. it is returns to the reference to the session content.

2. Cookie Mode:-

used to set or get the required cookie mode value for the session.

→ All cookie mode values are available in an enumeration, known as http cookie mode.

3. Count:-

This property will return the count of elements or items available with in the session.

4. Is Cookieless:-

When set to false session can be worked with cookies when set to true session can be worked without cookies.

5. Is New Session:-

This property will return true if session is the new otherwise will return false.

6. Mode:-

used to set or get the required session mode where the session is to be created and maintained.

→ default session state mode is Inproc

7. Session Id:-

This property is used to get the Id of the session that is created.

8 Timeout:-

used to set or get the required timeout period for a session.

Methods With Session:-

1. Abandon:-

This method is used to Kill the Session Programmatically.