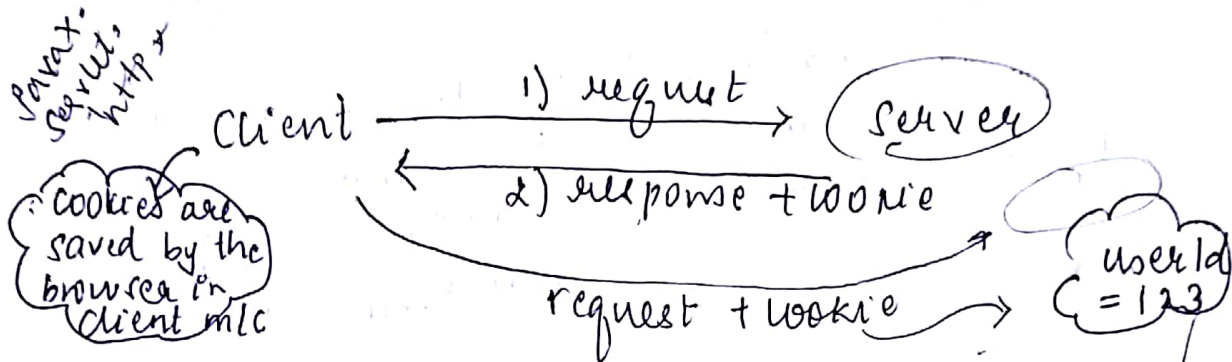


- Cookies are the mostly used technology for session tracking.
- Cookie is a key value pair of information sent by the server to the browser.
- This should be saved by the browser in its space in the client computer.
- Whenever the browser sends a request to that server it sends the cookie along with it. Then the server can identify the client using the cookie.



```
Cookie cookie = new Cookie("userId", "123");
res. addCookie(cookie);
```

request is coming from client that has previously visited

### Disadv

- the client can disable the cookie using their browser preferences.
- Not safe.
- Only textual info can be set in cookie obj.
- size constraint i.e upto 4KB

### Advantages

- All browser supports cookie
- simplest way for session tracking.

## Types of Cookies

1) Non persistent cookie

It is valid for single session only.  
It is removed each time when user closes the browser

2) Persistent cookie

It is valid for multiple session.

It is not removed each time when user closes the browser. It is removed only if user logout or signout.

---

javax.servlet.http.

- `Cookie()`

- `Cookie(String name, String val)`

### Methods

`public void setName(String nm)`

`public void setValue(String val)`

`public String getName()`

`public String getValue()`

`public void setMaxAge(int expiry)`  
↳ In sec.

---

`HttpServletResponse`

`public void addCookie(Cookie ck)`

`HttpServletRequest`

`public Cookie[] getCookies()`

Add cookie

```
Cookie c = new Cookie("userid", "123");  
response.addCookie(c);
```

Delete cookie.

1. Cookie c = new Cookie("userid", "");
2. c.setMaxAge(0); ↓  
Null
3. response.addCookie(c);

Get cookies.

```
Cookie ck[] = request.getCookies()
```

```
for (i=0; i < ck.length; i++)
```

```
{ out.println("<br>" + ck[i].getName()  
+ " : " + ck[i].getValue());
```

```
}
```

---

prgm



# Session

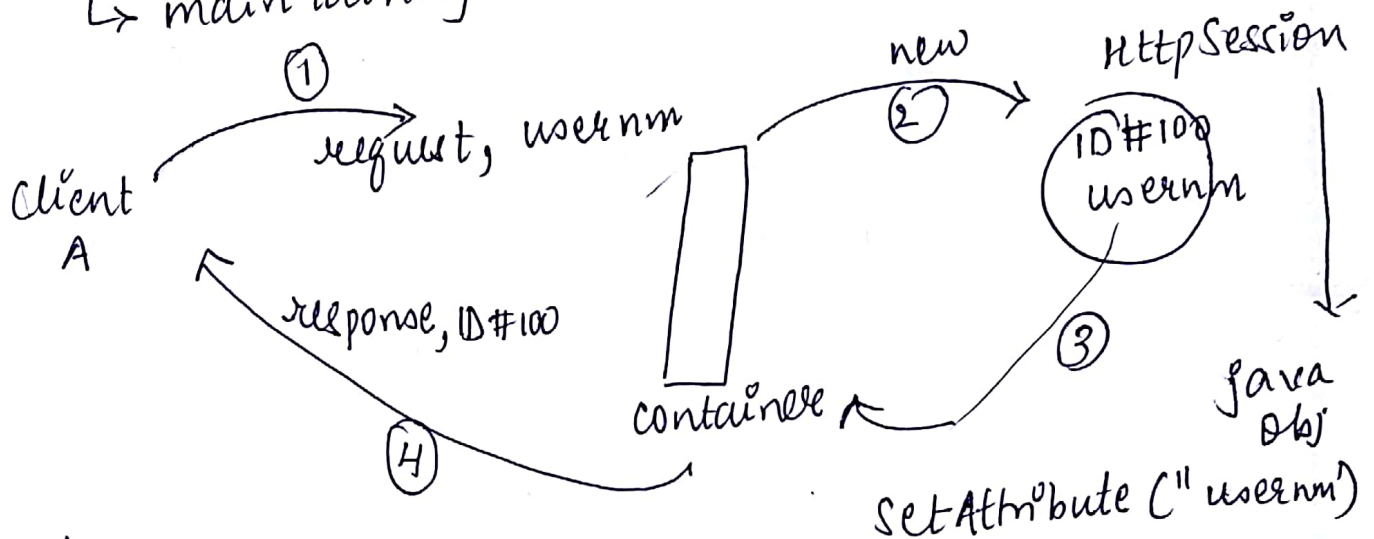
Recognize client during multiple requests

Http is stateless protocol

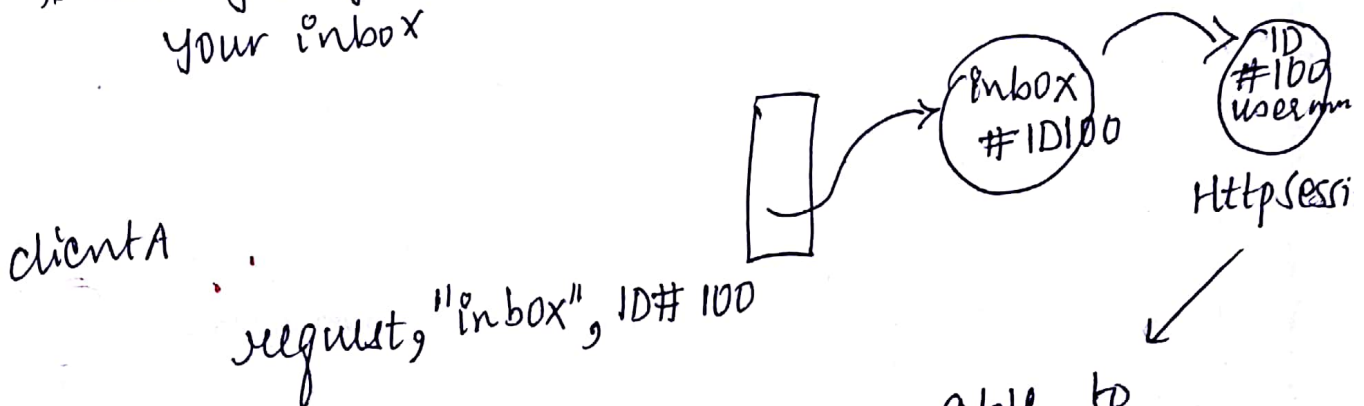
↳ does not have ability to remember the client i.e from where the request has come from.

↳ does not have ability to store state of the client.

↳ maintaining the state, server has to do

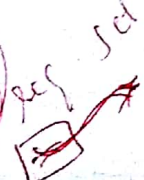


↳ now you got your inbox



able to validate & remember

Client ↔ server  
session id is passed



HttpServletRequest provides following methods

HttpSession getSession();

HttpSession getSession (boolean create)

Methods.

- 1) Object getAttribute (String name)
- 2) Enumeration getAttributeNames()
- 3) void setAttribute (String name, Object val)
- 4) void removeAttribute (String name)

- 5) String getId()
- 6) boolean isNew()
- 7) void invalidate()
- 8) int getMaxInactiveInterval()
- 9) long getCreationTime()
- 10) long getLastAccessedTime()

HTML>

BODY>

```
<form action="/servlet1" method="post">  
Name:<input type="text" name="userName"/><br/>  
<input type="submit" value="go"/>  
</form>
```

</BODY>

</HTML>

```
<servlet>
  <servlet-name>Hello</servlet-name>
  <servlet-class>HelloWorld</servlet-class>
</servlet>
```

```
<servlet-mapping>
  <servlet-name>Hello</servlet-name>
  <url-pattern>/display</url-pattern>
</servlet-mapping>
```

```
<servlet>
  <servlet-name>Prac14</servlet-name>
  <servlet-class>Prac14</servlet-class>

  <init-param>
    <param-name>page_count</param-name>
    <param-value>0</param-value>
  </init-param>
</servlet>
```

```
<servlet-mapping>
  <servlet-name>Prac14</servlet-name>
  <url-pattern>/display-count</url-pattern>
</servlet-mapping>
```

```
<servlet>
<servlet-name>s1</servlet-name>
<servlet-class>FirstServlet</servlet-class>
</servlet>
```

```
<servlet-mapping>
<servlet-name>s1</servlet-name>
<url-pattern>/servlet1</url-pattern>
</servlet-mapping>
```

```
<servlet>
<servlet-name>s2</servlet-name>
<servlet-class>SecondServlet</servlet-class>
</servlet>
```

```
<servlet-mapping>
<servlet-name>s2</servlet-name>
<url-pattern>/servlet2</url-pattern>
</servlet-mapping>
</web-app>
```

WINTEL

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
```

```
public class FirstServlet extends HttpServlet {
```

```
    public void doPost(HttpServletRequest request, HttpServletResponse response) {
        try{
```

```
            response.setContentType("text/html");
            PrintWriter out = response.getWriter();
```

```
            out.println("<HTML>");
            out.println("<BODY>");
            String n=request.getParameter("userName");
            out.print("Welcome "+n);
```

```
            //Cookie ck=new Cookie("uname",n);//creating cookie object
            // response.addCookie(ck);//adding cookie in the response
```

```
            HttpSession session=request.getSession();
            session.setAttribute("uname",n);
```

```
            //creating submit button
            out.print("<form action='servlet2' method='post'>");
            out.print("<input type='submit' value='go' >");
            out.print("</form>");
```

```
            out.println("</BODY>");
            out.println("</HTML>");
            out.close();
```

```
        }catch(Exception e){System.out.println(e);}
    }
```



```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
```

```
public class SecondServlet extends HttpServlet {
```

```
    public void doPost(HttpServletRequest request, HttpServletResponse response) {
        try{
```

```
            response.setContentType("text/html");
            PrintWriter out = response.getWriter();
```

```
            out.println("<HTML>");
            out.println("<BODY>");
```

```
            //Cookie ck[]=request.getCookies();
            //out.print("Hello "+ck[0].getValue());
```

```
            HttpSession session=request.getSession(false);
            String n=(String)session.getAttribute("uname");
            out.print("Hello "+n);
```

```
            out.println("</BODY>");
            out.println("</HTML>");
```

```
            out.close();
```

```
        }catch(Exception e){System.out.println(e);}
    }
```