

Web Application Development

Lab 5

Session – Cookies

Cookies

- Define: a small piece of information of user.
- Store: on hard disk of client computer (by browser)
- Content: collected activity history of user
- Purpose: help the web provider know more information about user by understanding these activities. And then the user can be served better and better.
- Drawback: weak security

Other technique to maintain session information

- URL rewritten
- Hidden form fields
- HttpObject (common use)

Session

- Define: state of browser at a certain point of time (it has life circle)
- Store: memory (handle by browser)
- Content: any information about current session
- Purpose: maintain state of a specific user during continuous activities.
- Drawback: state object will be volatile if power fails.

Session cookies

- Define: a cookies contain information about session.
- Store: on ***hard disk*** of client computer

Persistent Cookies

- Permanently store information on hard disk until user delete it (by browser)

Create cookies (Jsp & Servlet)

- Step 1: `Cookie c = new Cookie("userID", "a1234");`
- Step 2: `c.setMaxAge(60*60*24*7);` //Life time
- Step 3: `response.addCookie(c);` //send cookies to client

Read client cookies

- Step 1: Call `request.getCookies`. This yields an array of `Cookie` objects.
- Step 2: Loop down the array, calling `getName` on each one until you find the cookie of interest. You then typically call `getValue` and use the value in some application-specific way.

Reading cookies example

- ```
String cookieName = "userID";
Cookie[] cookies = request.getCookies();
if (cookies != null) {
 for(int i=0; i<cookies.length; i++) {
 Cookie cookie = cookies[i];
 if (cookieName.equals(cookie.getName()))
 {
 doSomethingWith(cookie.getValue());
 }
 }
}
```

# Some demonstrations

- Rewrite session-cookie exercise in theory class in servlet code.