State Management Quiz

1. **Can post requests be bookmarked? What are the problems?**

Yes, Post request can be bookmarked but since a bookmark only display in the URL, so if it happens all of the form parameters will be lost and web server does not know what to do with that request, since it was expecting some form parameters.

1. **What is the purpose of request dispatching?**

To dispatch the request to another resource it may be html, jsp or servlet. It is one way of collaborating servlet because it can also be used to include the content of another resource.

1. **What is the difference between redirect and request dispatch?**

**Request dispatcher** method pass the control of the request to another servlet or jsp without telling anything to the client browser about the request dispatch. So request dispath happens in the server side.

**SendRedirect** method stops further processing of the request and send http status code 301 and “URL” of the location to be redirected to the client browser in the response header. So server doesn’t have control of this request after sending the redirect related HTTP header to the client browser.

1. **What is an attribute?**

Attribute is an object that can be set, get and removed from one of the three scopes, request, session, and application. The servlet programmer can pass the information from one servlet to another using attributes.

1. **What is the difference between attributes and parameters?**

Http request messages send input parameters as a name/value pairs. Input parameters are text that must be accesses and converted by servlet. This is the main mechanism web apps use to send the browser to the server.

Attributes are objects on the server. They promote communication between components. And where only the request attributes are thread safe.

1. What are dangers of using attributes?

Context scope attributes are application level state, which shared by every servlet and every request in the application. And another is session attributes

1. What does it mean to say that http is stateless? Give an example of a stateful protocol.

It means that after a web server responds to a request, there is no “memory” of the request or who sent it. Example of stateful protocols are, SMTP, TCP...etc.

1. **Give 5 different methods for maintaining state information (count each attribute scope as one method).**
2. Request scope
3. Cookies saved on browser
4. application/context
5. hidden field on form
6. session
7. **How long does a session last?**

Session destroyed when user closes browse.

1. **What is a cookie, and how long does a cookie last?**

Cookie is a small piece of information that is persisted between the multiple client requests.

For temporary cookie, cookie deleted when the browser closes.

Another is, permanent (a cookie that has a max age set)

1. **What is the purpose of URL rewriting?**

Main purpose is, to add the session id in URLs, server response encodeURL and encodeRedirectURL does the same thing for us behind the scene IF cookies are disabled. So basically, it’s the same thing where we are using Servlet API for rewriting.

1. Why does the request attribute report ‘null’ for the maintaining state demo?

Because request attribute is an object so, if it is not set before, we have to set the attribute equals to null.