

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

*An Http Post request can be bookmarked, but this will cause the problem that the web server won't get the expected form parameters, because the bookmark consists only of URL without the form parameters. With this approach the form parameters will be lost, resulting in the problem that the web server doesn't know what to do with that request.*

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

*According to request dispatcher Api -> Defines an object that receives requests from the client and sends them to any resource (such as a servlet, HTML file, or JSP file) on the server. The servlet container creates the RequestDispatcher object, which is used as a wrapper around a server resource located at a defined path or given by a name.*

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

***Redirect** -> sends the Http the status code along with the redirect URL to the client, which causes an extra round trip from browser to server and changes the address bar in a new URL. Contains only http message, request and response cannot be sent.*

***Request Dispatch(forward)** also known as server-side redirect-> delegates the request to another resource on the server. Forward passes request and response objects passed to destination servlet. Browser is completely unaware of servlet forward and hence the URL in browser address bar will remain unchanged.*

**4. What is an attribute?**

*Attribute is an object bound into one of the 3 Servlet API objects: HttpServletRequest, HttpSession, ServletContext.*

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

*Parameter sends data from HTML page to the servlet. Parameters are read only, not modifiable Attribute are objects attached to various scopes and can be read, created, updated, deleted by the web container.*






**6. What are dangers of using attributes?**

*Attributes are not thread- safe.*

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

*The browser doesn't keep track of the request send by a particular user. Each request is handled as if it has never been asked before. Stateful Protocol-> FTP, Soap*

**8. Give 5 different methods for maintaining state information (count each attribute scope as one method).**

-  *request scope: destroyed when servlet finishes processing request*
-  *session scope: destroyed when user closes browser*
-  *application scope destroyed when the container stopped.*
-  *Cookies saved on browser, either temporary (deleted when the browser closes) or permanent*
-  *Hidden fields on a form*

**9. How long does a session last?**

*Session lasts until the user closes browser. Default time is 30 minutes, specified in the servlet or xml file*

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

*Text files stored in the client-side browser to store various information.*

*Temporary cookie is deleted whenever the browser is closed otherwise permanent cookies live until their maximum specified age is reached.*

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

*URL rewriting can be used as an alternative, if a browser doesn't support cookies. In this case the requested URL is modified in such a way that it includes a session ID.*

**12. Why does the request attribute report 'null' for the maintaining state demo?**

*Because cookies are stored after the browser went on the website, therefore at the beginning there are no cookies stored.*