**State Management Quiz**

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

No. Parameters are not visible on the browser bar, it has a body. So we can not bookmark a POST request

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

To forward the request to another resource on the server (request and response objects)

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

|  |  |
| --- | --- |
| **Redirect** | **Dispatch** |
| - server sends HTTP status code 3xx to clients with the redirect URL  - Client then send a new request to new URL  - Extra round trip  - Address bar will change  - Only http message sent, requests and responses object can't be send | - Pass the request to another resource on the s erver  - Request and response object pass to destination servlet  - Browser will completely unaware so address bar will not change |

**4. What is an attribute ?**

+Attribute is and object bound to three servlet API objects:

- HttpServletRequest

- HttpSession

- ServletContext

+ Name value pair:

- name: String

- value: Object

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

|  |  |
| --- | --- |
| **Attribute** | **Parameter** |
| *- Bound to HttpServletRequest, HttpSession, ServletContext*  *- Name: String*  *- Value can be object* | *- Bound to HttpServletRequest*  *- Name: String*  *- Value: always String* |

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

In the context scope attribute:

- Shared by every servlet and every requests in the application so be careful may be leak data.

- Not a thread safe

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

HTTP is a stateless protocol because after a web server response to a request, there is no memory of the request or who sent it.

- Stateful protocol: using cookie, session, database in the Servlet container

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

- Request scope: HttpServletRequest.getAttribute();

- Session scope: HttpSession.setAttribute();

- Application scope: this.getServletContext().setAttribute();

- Cookies saved on browser: HttpServletResponse.setCookie();

- Hidden fields on form: we use HttpServletRequest.getParameter()

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

When user closes browser

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

An HTTP cookie is a small piece of data stored on the user's computer by the web browser while browsing a website.

- Temporary cookie:

+ this is default

+ browser removes when it closes

- Permanent cookie:

+ No expire

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

- Make it user friendly

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

- Because it is request scope, only available on the request