

State Management Quiz

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

Ans:- No, A `POST` request however is *not guaranteed* to give the same result every time when you invoke it. All request parameters are included in the request *body*. It is not visible for the end user and not visible in the request URL.

2. What is the purpose of request dispatching?

The Request Dispatcher interface provides the facility of dispatching the request to another resource it may be html, servlet or Jsp. This interface can also be used to include the content of another resource also. It is one of the ways of servlet collaboration. There are two methods defined in the Request dispatcher interface.

- `public void forward (ServletRequest request,ServletResponse response)throws ServletException,java.io.IOException:`Forwards a request from a servlet to another resource (servlet, JSP file, or HTML file) on the server.
- `public void include e(ServletRequest request,ServletResponse response)throws ServletException,java.io.IOException:`Includes the content of a resource (servlet, JSP page, or HTML file) in the response.

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

Using the redirect method, we can forward the request to servlet that is either in the same servlet container or in other container .When we are using request dispatch method ,we can forward the request only to a servlet that is in the current container.

- The `sendRedirect()` method of `HttpServletResponse` interface can be used to redirect response to another resource, it may be servlet, jsp or html file.
- The RequestDispatcher interface provides the facility of dispatching the request to another resource it may be html, servlet or jsp. This interface can also be used to include the content of another resource also. It is one of the way of servlet collaboration.

4. What is an attribute ?

Ans:- An attribute in servlet is an object that can be set, get or removed from one of the following scopes: request scope, session scope, application scope

The servlet programmer can pass information's from one servlet to another using attributes. It is just like passing object from one class to another so that we can reuse the same object again and again.

5. What is the difference between attributes and parameters?

Ans:-

- Request parameters are the result of submitting an HTTP request with a query string that specifies the name/value pairs, or of submitting an HTML form that specifies the name/value pairs. The name and the values are always strings.
- Attributes are objects, and can be placed in the request, session, or context objects. Because they can be any object, not just a String, they are much more flexible. You can also set attributes programmatically and retrieve them later. This is very useful in the MVC pattern.

6. What are dangers of using attributes?

Ans:-

- Not thread safe
- Nor session attributes
- Only request attributes thread safe

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

Ans:-

A stateless protocol does not require the server to retain session information or status about each communicating partner for the duration of multiple requests.

Example of Stateful protocol:- FTP , Talent

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

Ans:-

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

9. How long does a session last?

Ans:- The default values are 1 and 100, so the garbage collector is only started in only 1% of all `Session start` calls. That means even if the session is already timed out in theory (the session data had been changed more than `session.gc_maxlifetime` seconds ago), the session data can be used longer than that. Recommend us to implement our own session timeout mechanism.

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

Ans:- There are 2 types of cookies in servlets.

- Non-persistent cookie:- is valid for single session only. It is removed each time when user closes the browser.
- Persistent cookie :- is valid for multiple session . It is not removed each time when user closes the browser. It is removed only if user logout or sign out.

11.What is the purpose of URL rewriting?

Ans:-

- It will always work whether cookie is disabled or not (browser independent).
- Extra form submission is not required on each pages.

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

Ans:- A reasonably likely explanation is that the requests are not in the same session. Maintaining a session requires cooperation from the client, which is not guaranteed to be given. The most common mechanisms for associating requests with sessions are cookies and URL rewriting. If the client refuses cookies and is making its requests to a static URL then every request will likely be in its own session.