**6.HttpServlet Class:**

* The HttpServlet class extends the GenericServlet class and implements Serializable interface.
* It provides http specific methods such as doGet, doPost, doHead, doTrace etc.

### Methods of HttpServlet class:

1. **public void service(ServletRequest req,ServletResponse res)** dispatches the request to the protected service method by converting the request and response object into http type.
2. **protected void service(HttpServletRequest req, HttpServletResponse res)** receives the request from the service method, and dispatches the request to the doXXX() method depending on the incoming http request type.
3. **protected void doGet(HttpServletRequest req, HttpServletResponse res)** handles the GET request. It is invoked by the web container.
4. **protected void doPost(HttpServletRequest req, HttpServletResponse res)** handles the POST request. It is invoked by the web container.
5. **protected void doHead(HttpServletRequest req, HttpServletResponse res)** handles the HEAD request. It is invoked by the web container.
6. **protected void doOptions(HttpServletRequest req, HttpServletResponse res)** handles the OPTIONS request. It is invoked by the web container.
7. **protected void doPut(HttpServletRequest req, HttpServletResponse res)** handles the PUT request. It is invoked by the web container.
8. **protected void doTrace(HttpServletRequest req, HttpServletResponse res)** handles the TRACE request. It is invoked by the web container.
9. **protected void doDelete(HttpServletRequest req, HttpServletResponse res)** handles the DELETE request. It is invoked by the web container.
10. **protected long getLastModified(HttpServletRequest req)** returns the time when HttpServletRequest was last modified since midnight January 1, 1970 GMT.

**doGet vs. doPost:**

|  |  |
| --- | --- |
| 1) In case of Get request, only **limited amount of data**can be sent because data is sent in header. | In case of post request, **large amount of data**can be sent because data is sent in body. |
| 2) Get request is **not secured**because data is exposed in URL bar. | Post request is **secured**because data is not exposed in URL bar. |
| 3) Get request **can be bookmarked.** | Post request **cannot be bookmarked.** |
| 4) Get request is **idempotent**. It means second request will be ignored until response of first request is delivered | Post request is **non-idempotent.** |
| 5) Get request is **more efficient**and used more than Post. | Post request is **less efficient**and used less than get. |

**Example:**

import java.io.\*;

import javax.servlet.\*;

import javax.servlet.http.\*;

// Extend HttpServlet class

public class HelloWorld extends HttpServlet {

private String message;

public void init() throws ServletException {

// Do required initialization

message = "Hello World";

}

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Set response content type

response.setContentType("text/html");

// Actual logic goes here.

PrintWriter out = response.getWriter();

out.println("<h1>" + message + "</h1>");

}

public void destroy() {

// do nothing.

}

}