**ITL-3 Practical 4**

**Q:** Write a servlet to remove spam.

**A:**

Servlet is a Java program which exists and executes in the J2EE servers and is used to receive the HTTP protocol request, process it and send back the response to the client. Servlets make use of the Java standard extension classes in the packages javax.servlet and javax.servlet.http. Since Servlets are written in the highly portable Java language and follow a standard framework, they provide a means to create the sophisticated server extensions in a server and operating system in an independent way.

Typical uses for HTTP Servlets include:

* Processing and/or storing the data submitted by an HTML form
* Providing dynamic content i.e. returning the results of a database query to the client
* Managing state information on top of the stateless HTTP i.e. for an online shopping cart system which manages the shopping carts for many concurrent customers and maps every request to the right customer

As Servlet technology uses the Java language, thus web applications made using Servlet are Secured, Scalable, and Robust.

**Cookies in Servlet:**

A Cookie is a small piece of information that is persisted between the multiple client requests. A cookie has a name, a single value, and optional attributes such as a comment, path and domain qualifiers, a maximum age, and a version number.

Some of the common usages of cookies are:

Session authentication using cookies i.e. HttpSession uses the JSESSIONID cookie to keep track of the user session

Personalized response to the client based on their preference. For e.g. Developers can set the background color as cookie in the client browser and then use it to customize the response background color, image etc

**How Cookies Work?**

By default, each request is considered as a new request. In this technique, developers add a cookie with the response object from the servlet. So the cookie is stored in the cache of the browser. After that, if the request is sent by the user, the cookie is by default added with the request object. Thus, we recognize the user as the old user.

**Types of Cookies:**

There are 2 types of cookies in the Servlets:

Non-Persistent Cookie: It is valid for a single session and is removed each time the user closes the web browser

Persistent Cookie: It is valid for multiple sessions and is not removed each time the user closes the web browser. It is only removed if the user log-out or sign-out from the application

**Useful methods of Cookie class:**

javax.servlet.http.Cookie class provides the functionality of using Cookies. Below are given some commonly used methods of the Cookie class:

|  |  |
| --- | --- |
| **Method** | **Description** |
| public void setMaxAge(int expiry) | Sets the maximum age of the Cookie in seconds. |
| public String getName() | Returns the name of the Cookie and the name cannot be changed after creation. |
| public String getValue() | Returns the value of the Cookie. |
| public void setName(String name) | Changes the name of the Cookie. |
| public void setValue(String value) | Changes the value of the Cookie. |

Now, open up the Eclipse Ide and let’s see how to set the Cookies in the Servlet and send it to a browser. This example will print the Cookie information and send it as an HTML response.