Servlets

Servlets runs and enabled in a java server which is also a Java class. In the form of an HTML page, one of the special type of servlet is a HTTP servlet which provides an HTTP response and handles an HTTP request. A java servlets is a java objects which aims to play the role in client-server communications of a server components.

Servlets life cycle

* Servlet is initialized in **init()** method by calling.
* To process or proceed to a client’s request ,the servlet calls **service()** method.
* For terminating the servlets, call **destroy()** method.
* Collect the garbage in servlet by the garbage collector of the JVM (Java Virtual Machine).

**init() Method**

* Called only once.
* One-time initializations
* Called only once the servlet is created.
* Not called for any user requests on the succeeding time or afterwards.
* It will be used through the entire life of the servlet that loads or creates some data.

public void init() throws ServletException {

// Initialization code...

}

**service() Method**

* Main method.
* Handle requests from the client browsers
* Write the arrangement or formatted response to the client.
* It checks the HTTP request type such as GET,DELETE,POST,PUT, etc.
* it also calls doPost, doGet, doDelete, doPut, etc.

public void service(ServletRequest request, ServletResponse response)

throws ServletException, IOException {

}

* called by service and container method that supports doPost, doGet, doPut, doDelete methods as appropriate.

**doGet() Method**

* it supports the HTTP GET requests.
* Used when a small amount of data and insensitive data.
* Results from a normal request from HTML form or URL that has no method being specified.

public void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Servlet code

}

**doPost() Method**

* it supports the HTTP POST requests.
* Used when almost large amount of a sensitive data has to be sent.

public void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Servlet code

}

**destroy() Method**

* Called once at the end of the servlet life cycle.
* It contribute the servlet to close database connections, write cookie lists, terminate background threads and other cleanup activities.

public void destroy() {

// Finalization code...

}

[**https://www.tutorialspoint.com/servlets/servlets-life-cycle.htm**](https://www.tutorialspoint.com/servlets/servlets-life-cycle.htm)

[**https://docs.oracle.com/javaee/6/tutorial/doc/bnafi.html**](https://docs.oracle.com/javaee/6/tutorial/doc/bnafi.html)

[**https://www.javatpoint.com/life-cycle-of-a-servlet**](https://www.javatpoint.com/life-cycle-of-a-servlet)