

Dt : 15/11/2024(Day-41)

Ex:

ContextListener.java

package test;

import jakarta.servlet.*;

import jakarta.servlet.annotation.*;

@WebListener

public class ContextListener implements ServletContextListener

{

public void contextInitialized(ServletContextEvent sce)

{

System.out.println("ServletContext Initialized...");

}

public void contextDestroyed(ServletContextEvent sce)

{

System.out.println("ServletContext destroyed...");

}

}

RequestListener.java

package test;

import jakarta.servlet.*;

import jakarta.servlet.annotation.*;

@WebListener

public class RequestListener implements ServletRequestListener, ServletRequestAttributeListener

{

```
public void requestInitialized(ServletRequestEvent sre)
{
    System.out.println("Request Initialized...");
}

public void requestDestroyed(ServletRequestEvent sre)
{
    System.out.println("Request Destroyed....");
}

public void attributeAdded(ServletRequestAttributeEvent srae)
{
    System.out.println("Attribute added to request....");
}

public void attributeRemoved(ServletRequestAttributeEvent srae)
{
    System.out.println("Attribute removed from request....");
}

public void attributeReplaced(ServletRequestAttributeEvent srae)
{
    System.out.println("Attribute replaced in request....");
}
}
```

SessionListener.java

```
package test;

import jakarta.servlet.http.*;

import jakarta.servlet.annotation.*;
```

@WebListener

public class SessionListener implements HttpSessionListener, HttpSessionAttributeListener

{

public void sessionCreated(HttpSessionEvent hse)

{

System.out.println("Session created....");

}

public void sessionDestroyed(HttpSessionEvent hse)

{

System.out.println("Session destroyed....");

}

public void attributeAdded(HttpSessionBindingEvent hsbe)

{

System.out.println("Attribute added to Session...");

}

public void attributeRemoved(HttpSessionBindingEvent hsbe)

{

System.out.println("Attribute removed from Session...");

}

public void attributeReplaced(HttpSessionBindingEvent hsbe)

{

System.out.println("Attribute replaced in Session...");

}

}

Note:

=>Add these listeners to HttpSession Application

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***imp**

Servlet Life-Cycle:

=>Servlet Life-cycle demonstrates diff stages(states) of Servlet Program from starting to ending.

=>The following are some important stages of Servlet Life-cycle:

- 1.Loading process
- 2.Instantiation process
- 3.Initialization process
- 4.Request handling process
- 5.Destroying process

1.Loading process:

=>Servlet programs are identified based on url-pattern and loaded for execution is known as 'Loading process'.

2.Instantiation process:

=>when Servlet program loaded for execution,then it is automatically instantiated known as 'Instantiation Process'

Note:

=>After Instantiation process,the execution-controls will find the following

Life-Cycle methods:

GenericServlet:

init()

service()

destroy()

HttpServlet:

init()

service()/doPost()/doGet()

destroy()

Filter:

init()

doFilter()

destroy()

3.Initialization process:

=>The process of making the programming components ready for execution is known as Initialization process,which means creating DAO object,Bean Objects and JCF object.

=>we use init()-method to perform Initialization process.

4.Request handling process:

=>The process of accepting request and providing the response is known as 'Request handling process'

=>we use service()/doPost()/doGet() method to perform Request Handling process.

5.Destroying process:

=>The process of closing the resources and services opened part of execution is known as destroying process.

=>we use destroy()-method to perform destroying process.

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