



SERVLETCONTEXTLISTENER

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Introduction

There are two most widely used Servlet Listener

1. ServletContextListener
2. HttpSessionListener.

ServletContextListener

- ☐ ServletContextListener will be executed once your web application is deployed in your application server
- ☐ If you have any requirements that need to be executed before the application is started, ServletContextListener is the best place for you.
- ☐ ServletContextListener also detects when your web application is removed. For example, if you replace the WAR file in Tomcat, Tomcat will automatically re-deploy your web application based on the latest WAR. Re-deploying means that Tomcat first removes the web application and then deploy the new web application. In this case, ServletContextListener should be able to notice when the web application is destroyed (removed) as well as when the web application is started (deployed). Just for your information, ServletContextListener is produced for you to deal with the ServletContext.

Because once we try to implement the **javax.servlet.ServletContextListener** interface, we must have to implement two methods

1. public void **contextInitialized**(ServletContextEvent arg0)
2. public void **contextDestroyed**(ServletContextEvent arg0)

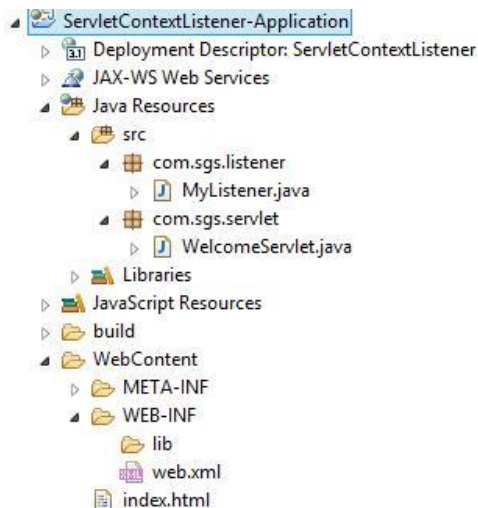
```
public class ServletListener implements javax.servlet.ServletContextListener
{
    public void contextInitialized(ServletContextEvent arg0)
    {
        System.out.println("Servlet Context is initialized....");
    }
    public void contextDestroyed(ServletContextEvent arg0)
    {
        System.out.println("Servlet Context is destroyed....");
    }
}
```

When our web application is started, the **contextInitialized** method is executed. If our web application is removed (perhaps shutting down / redeploying web application in Tomcat), **contextDestroyed** method is executed.

Now, we need to add one more entry in our web.xml.

```
<listener>
<listener-class>com.sunglowsys.listener.ServletListener</listener-class>
</listener>
```

Project Structure



Index.html

```
<body>
    <a href="WelcomeServlet">Test Here !!</a>
</body>
```

MyListener.java

```
package com.sgs.listener;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;

import javax.servlet.ServletContextEvent;
import javax.servlet.ServletContextListener;
import javax.servlet.annotation.WebListener;

@WebListener //if annotation is not used then maps MyListener inside web.xml file
public class MyListener implements ServletContextListener {

    @Override
    public void contextDestroyed(ServletContextEvent event)
    {
        System.out.println("Context Is Destroyed");
    }

    @Override
    public void contextInitialized(ServletContextEvent event)
    {
        System.out.println("Context Is Intialized");
        String driver = "com.mysql.jdbc.Driver";
        String url = "jdbc:mysql://localhost:3306/test";
        String username = "root";
        String password = "admin";
    }
}
```

```

        try {
            Class.forName(driver);
            Connection connection = DriverManager.getConnection(url,username,password);
            Statement statement = connection.createStatement();
            String query = "create table emp_test1(empId varchar(20), emp_name
            varchar(50));"; if(statement.execute(query))
                System.out.println("Table Not Created ");
            System.out.println("Table Created Successfully");
        } catch (Exception e) {

            e.printStackTrace();
        }
    }
}

```

WelcomeServlet.java

```

package com.sgs.servlet;

import java.io.IOException;
import java.io.PrintWriter;

import javax.servlet.ServletConfig;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

@WebServlet("/WelcomeServlet")
public class WelcomeServlet extends HttpServlet {
    private static final long serialVersionUID = 1L;
    @Override
    public void init(ServletConfig config) throws ServletException {

        System.out.println("Servlet Is Intialized");
    }
    @Override
    public void destroy() {

        System.out.println("Servlet is Destroyed");
    }
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException
    {
        PrintWriter out = response.getWriter();
        out.println("ServletContext Done Successfully");
    }
}

```

Web.xml (if annotation not use the map MyListener)

```
<web-app>
  <Welcome-file-list>
    <welcome-file>index.html</welcome-file>
  </welcome-file-list>

  <listener>
    <listener-class>com.sgs.listener.MyListener</listener-class>
  </listener>
</web-app>
```