

HELLO SERVLET WEB APPLICATION USING TOMCAT SERVER

Aim:

To implement simple hello servlet web application using Apache Tomcat server.

Project DIR:

webapps

- HelloServlet

- index.html

- WEB-INF

- web.xml

- classes

- HelloWorld.java

- HelloWorld.class

Program code:

index.html

```
<html>
  <head>
    <title>My First Web Application</title>
  </head>
  <body>
    <form action="hello" method="get">
      <button type="submit">Click Me</button>
    </form>
  </body>
</html>
```

web.xml

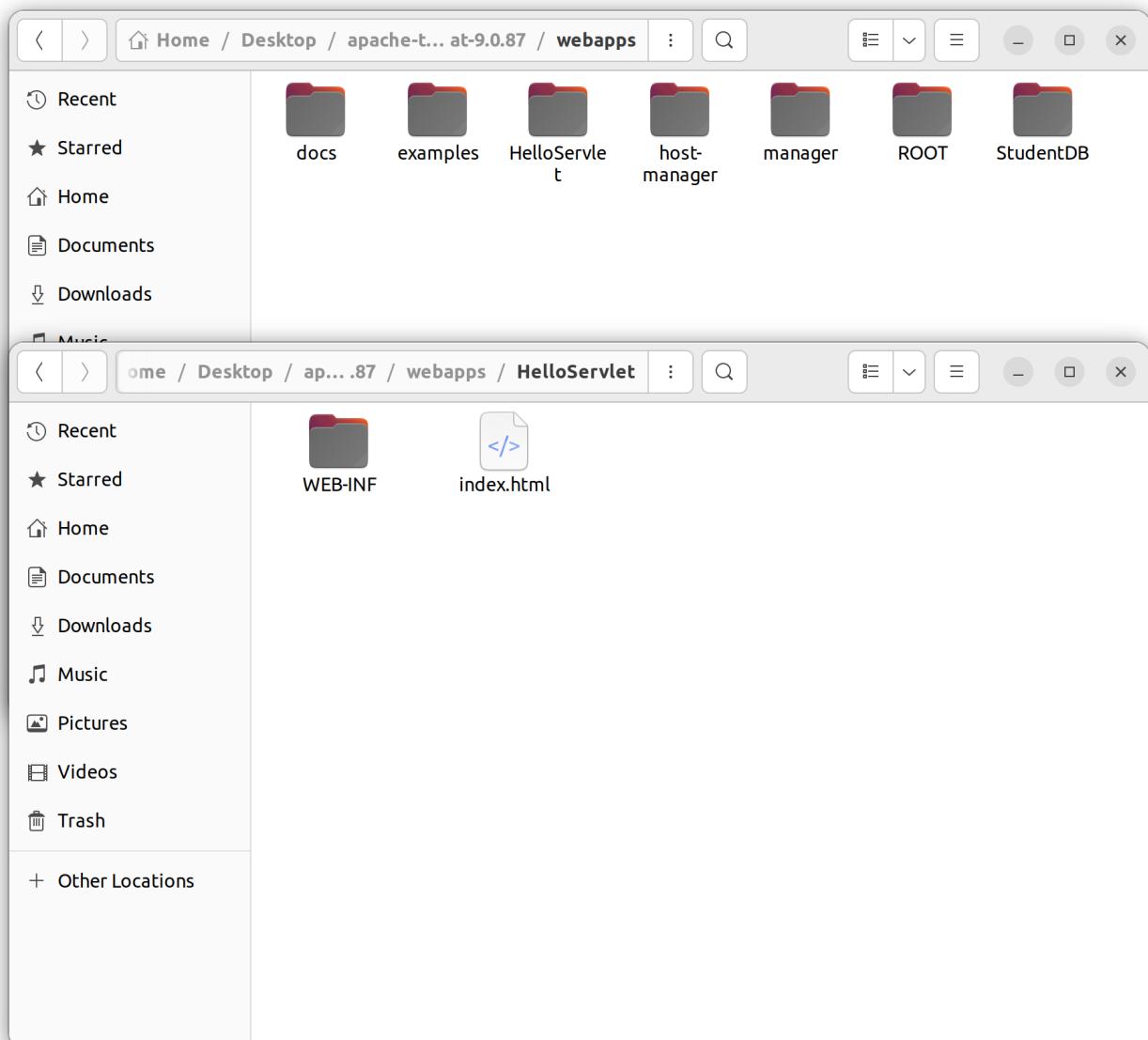
```
<web-app>
  <servlet>
    <servlet-name>HelloWorld</servlet-name>
    <servlet-class>HelloWorld</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>HelloWorld</servlet-name>
    <url-pattern>/hello</url-pattern>
  </servlet-mapping>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
  </welcome-file-list>
</web-app>
```

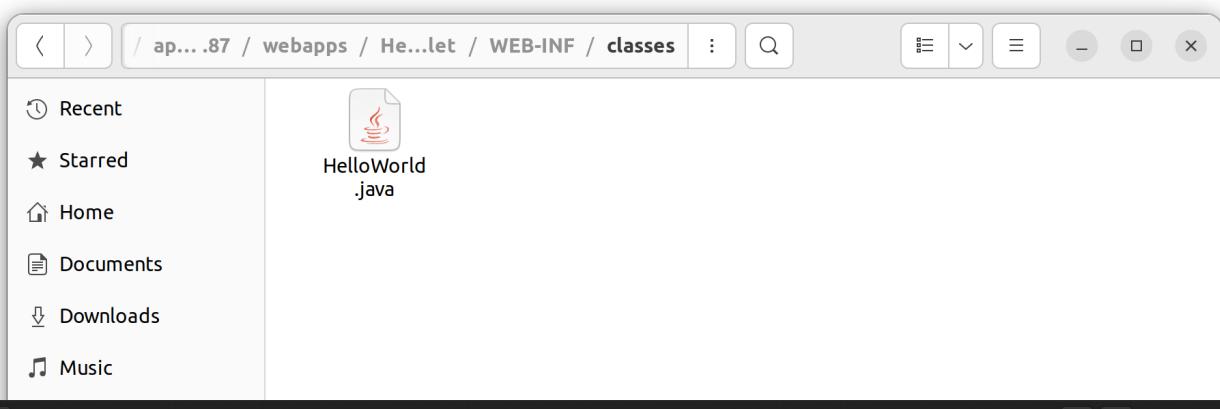
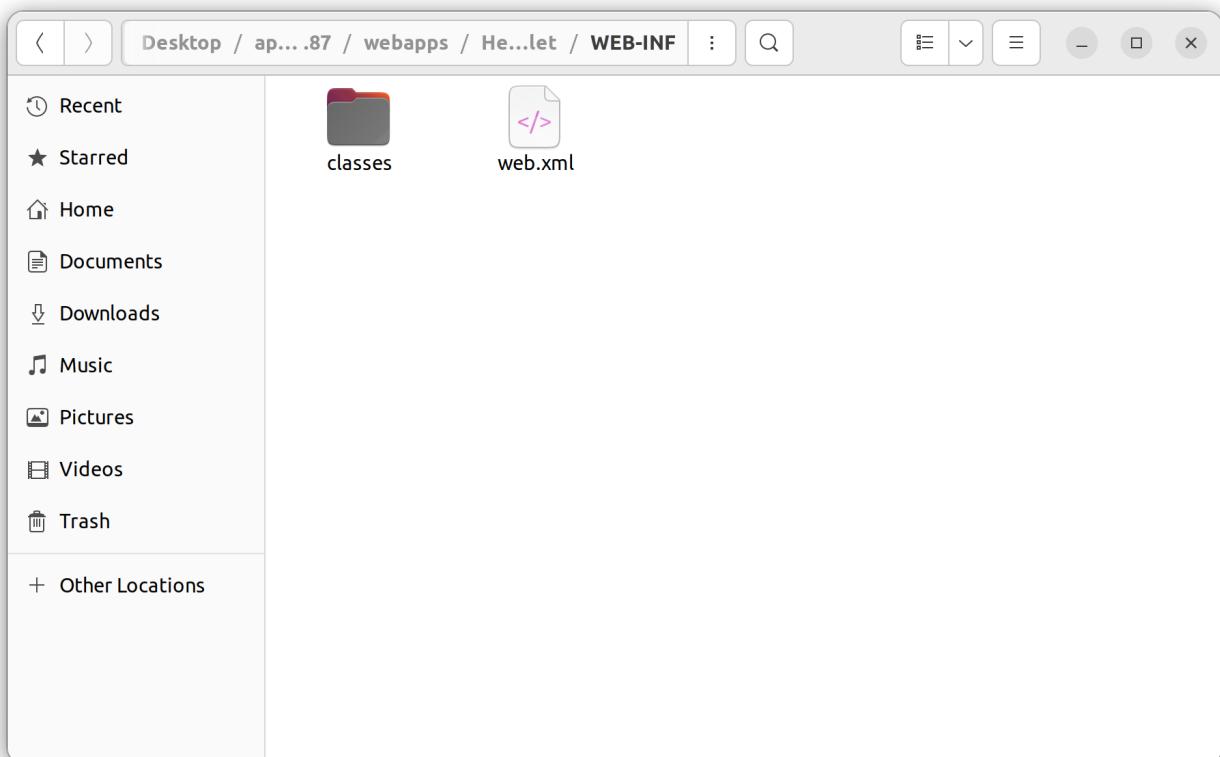
HelloWorld.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

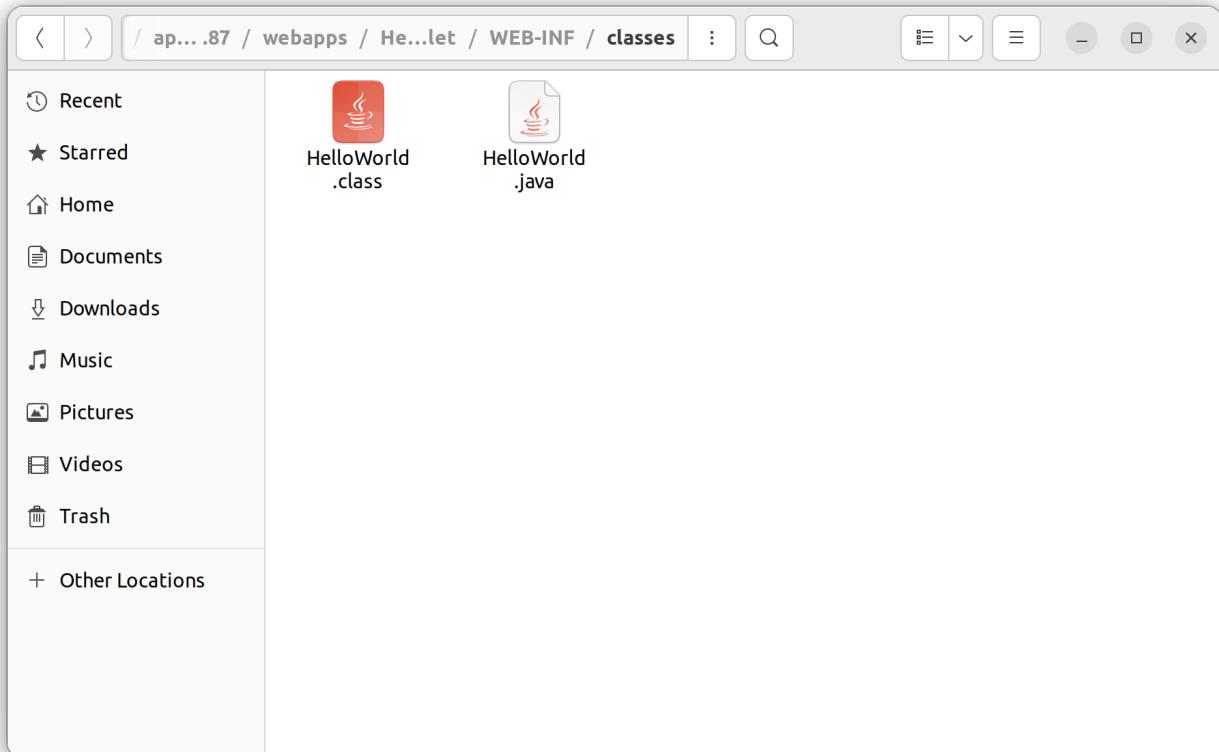
public class HelloWorld extends HttpServlet {
    public void doGet(HttpServletRequest request,HttpServletResponse response) throws
IOException, ServletException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        out.println("<html>");
        out.println("<head>");
        out.println("<title>Hello World! </title>");
        out.println("</head>");
        out.println("<body>");
        out.println("<h1>Hello Java servlet!</h1>");
        out.println("</body>");
        out.println("</html>");
    }
}
```

Output:





```
rohith@rohith: ~/Desktop/apache-tomcat-9.0.87/webapps/HelloServlet/WEB-INF/classes
rohith@rohith:~/Desktop/apache-tomcat-9.0.87/webapps/HelloServlet/WEB-INF/classes$ javac -classpath ~/tomcat-servlet-api-9.0.4.jar HelloWorld.java
rohith@rohith:~/Desktop/apache-tomcat-9.0.87/webapps/HelloServlet/WEB-INF/classes$
```



The terminal window shows the command `rohith@rohith:~$ ${CATALINA_HOME}/bin/startup.sh` being run, followed by the output of the Tomcat startup script. The browser window shows the Apache Tomcat 9.0.87 welcome page with the message "If you're seeing this, you've successfully installed Tomcat. Congratulations!" and links for recommended reading and developer quick start.

```
rohith@rohith:~$ ${CATALINA_HOME}/bin/startup.sh
Using CATALINA_BASE:   /home/rohith/Desktop/apache-tomcat-9.0.87
Using CATALINA_HOME:   /home/rohith/Desktop/apache-tomcat-9.0.87
Using CATALINA_TMPDIR: /home/rohith/Desktop/apache-tomcat-9.0.87/temp
Using JRE_HOME:        /usr
Using CLASSPATH:       /home/rohith/Desktop/apache-tomcat-9.0.87/bin/bootstrap.jar:/home/rohith/Desktop/apache-tomcat-9.0.87/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.
rohith@rohith:~$
```

Apache Tomcat/9.0.87

If you're seeing this, you've successfully installed Tomcat. Congratulations!

Recommended Reading:

- [Security Considerations How-To](#)
- [Manager Application How-To](#)
- [Clustering/Session Replication How-To](#)

Developer Quick Start

Tomcat Setup
First Web Application

Realms & AAA
JDBC DataSources

Examples

Servlet Specifications
Tomcat Versions

Documentation

Tomcat 9.0 Documentation
Tomcat 9.0 Configuration
Tomcat Wiki

Find additional important configuration information in:
`$CATALINA_HOME/CONF/tomcat-users.xml`

In Tomcat 9.0 access to the manager application is split between different users.
[Read more...](#)

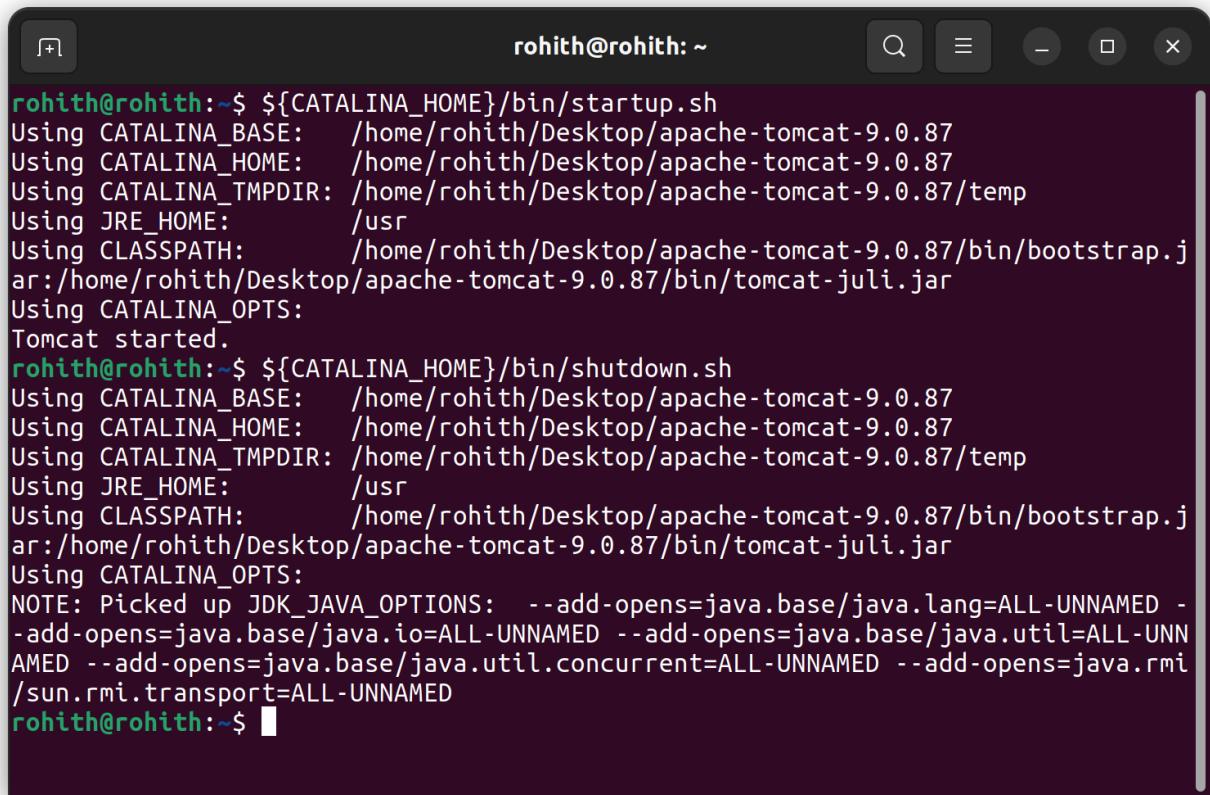
Getting Help

FAQ and Mailing Lists

The following mailing lists are available:

- [tomcat-announce](#)
Important announcements, releases, security vulnerability notifications. (Low volume).
- [tomcat-users](#)
User support and discussion
- [taglibs-user](#)
User support and discussion for Apache Taglibs
- [tomcat-dev](#)
Development mailing list, including commit messages





The screenshot shows a terminal window with a dark background and light-colored text. The title bar reads "rohith@rohith: ~". The terminal displays two sets of log messages from Apache Tomcat 9.0.87. The first set, after "rohith@rohith:~\$ \${CATALINA_HOME}/bin/startup.sh", shows Tomcat starting up with various environment variable settings like CATALINA_HOME, CATALINA_TMPDIR, and JRE_HOME. The second set, after "rohith@rohith:~\$ \${CATALINA_HOME}/bin/shutdown.sh", shows Tomcat shutting down. Both sets end with a note about Java security options and a final prompt "rohith@rohith:~\$".

```
rohith@rohith:~$ ${CATALINA_HOME}/bin/startup.sh
Using CATALINA_BASE:      /home/rohith/Desktop/apache-tomcat-9.0.87
Using CATALINA_HOME:      /home/rohith/Desktop/apache-tomcat-9.0.87
Using CATALINA_TMPDIR:   /home/rohith/Desktop/apache-tomcat-9.0.87/temp
Using JRE_HOME:          /usr
Using CLASSPATH:         /home/rohith/Desktop/apache-tomcat-9.0.87/bin/bootstrap.jar:/home/rohith/Desktop/apache-tomcat-9.0.87/bin/tomcat-juli.jar
Using CATALINA_OPTS:
Tomcat started.

rohith@rohith:~$ ${CATALINA_HOME}/bin/shutdown.sh
Using CATALINA_BASE:      /home/rohith/Desktop/apache-tomcat-9.0.87
Using CATALINA_HOME:      /home/rohith/Desktop/apache-tomcat-9.0.87
Using CATALINA_TMPDIR:   /home/rohith/Desktop/apache-tomcat-9.0.87/temp
Using JRE_HOME:          /usr
Using CLASSPATH:         /home/rohith/Desktop/apache-tomcat-9.0.87/bin/bootstrap.jar:/home/rohith/Desktop/apache-tomcat-9.0.87/bin/tomcat-juli.jar
Using CATALINA_OPTS:
NOTE: Picked up JDK_JAVA_OPTIONS: --add-opens=java.base/java.lang=ALL-UNNAMED --add-opens=java.base/java.io=ALL-UNNAMED --add-opens=java.base/java.util=ALL-UNNAMED --add-opens=java.base/java.util.concurrent=ALL-UNNAMED --add-opens=java.rmi/sun.rmi.transport=ALL-UNNAMED
rohith@rohith:~$
```

Learning Outcomes:

1. Understand the working of web server and its protocol in real time.
2. Developed a simple Client-Server web application.