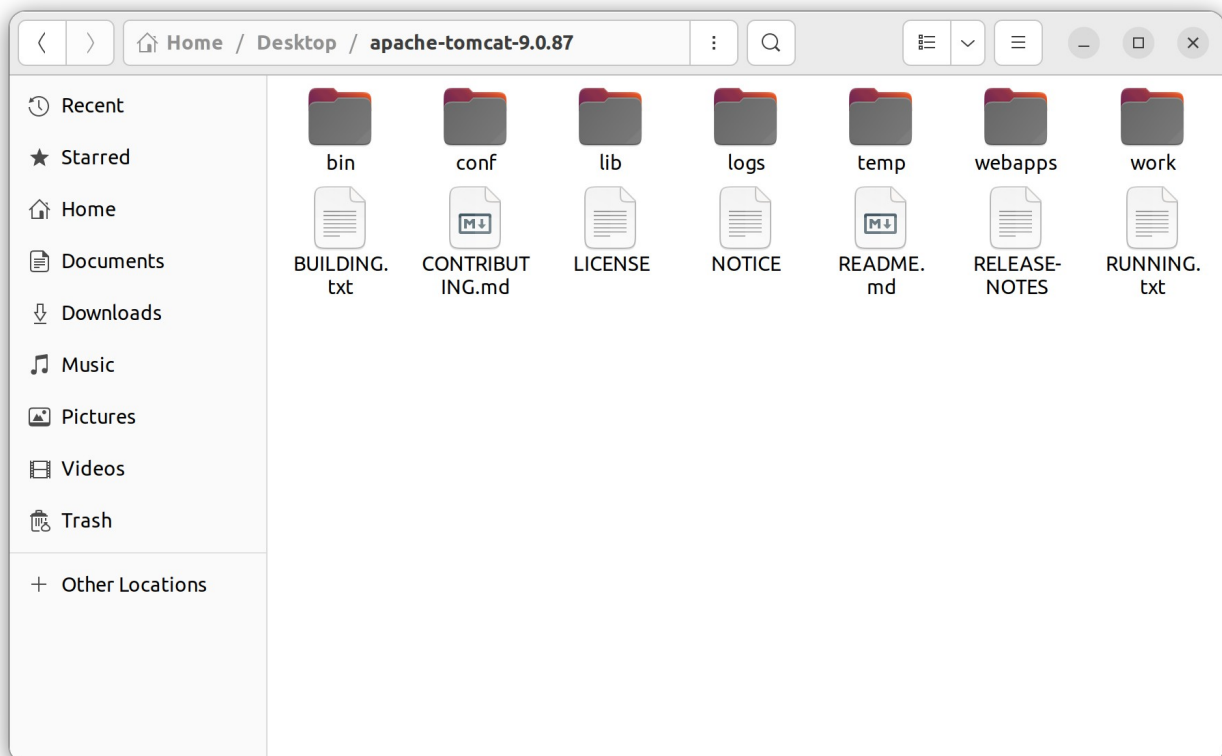
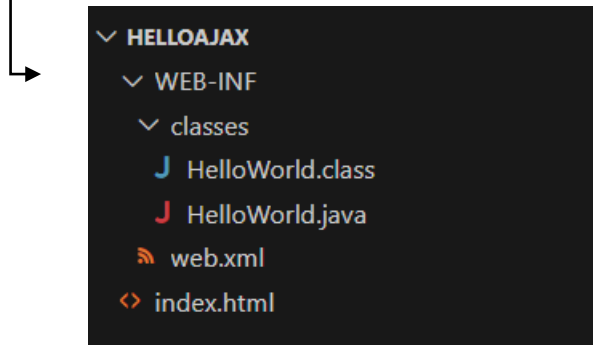


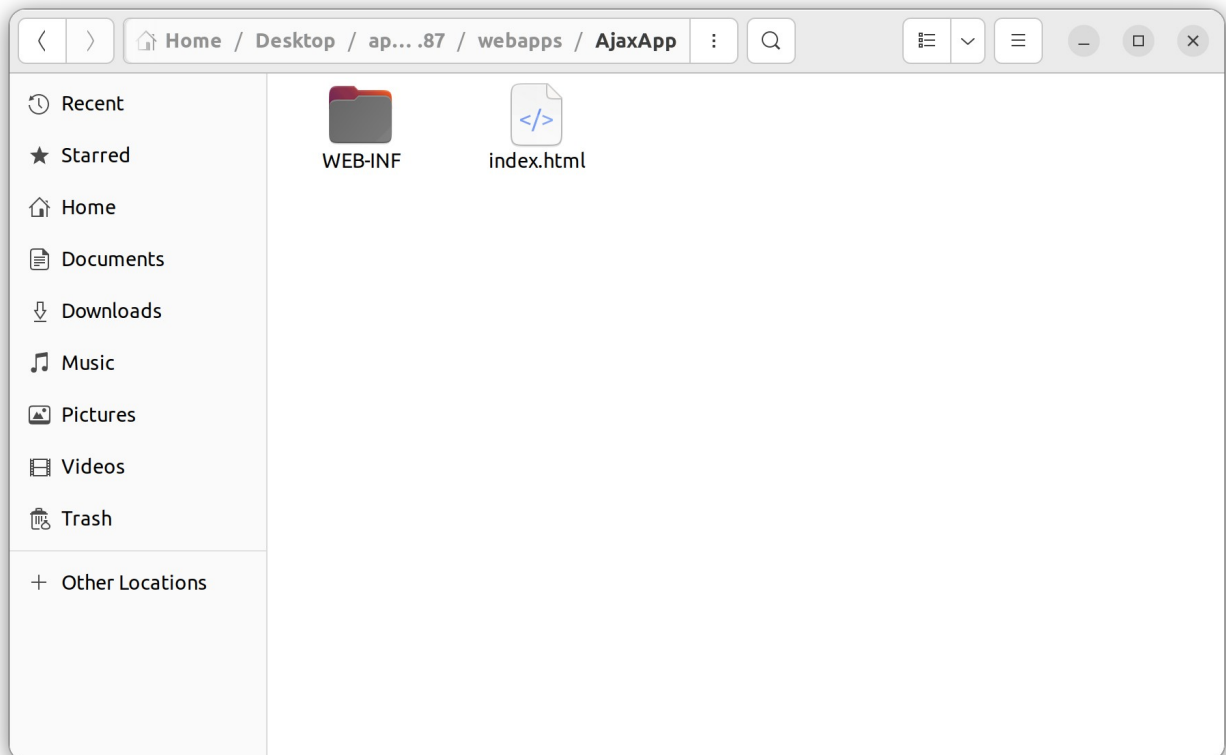
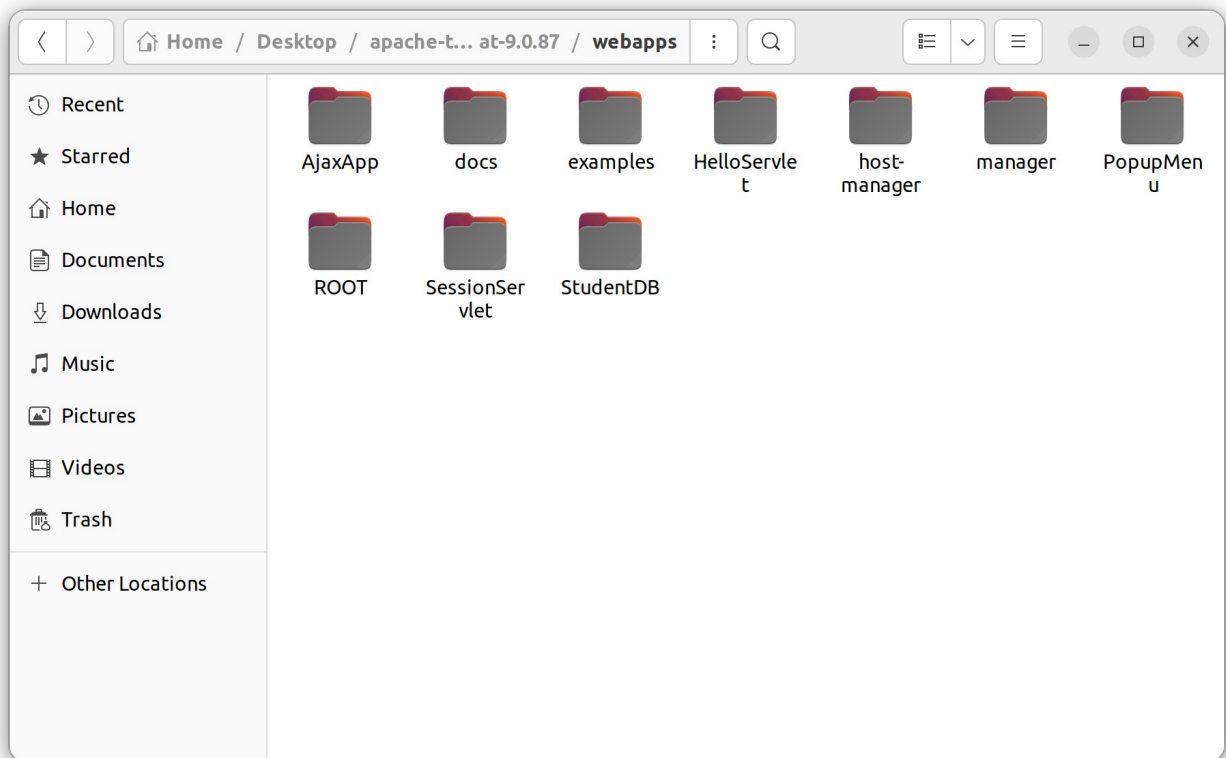
Exercise-7 (Hello Ajax)

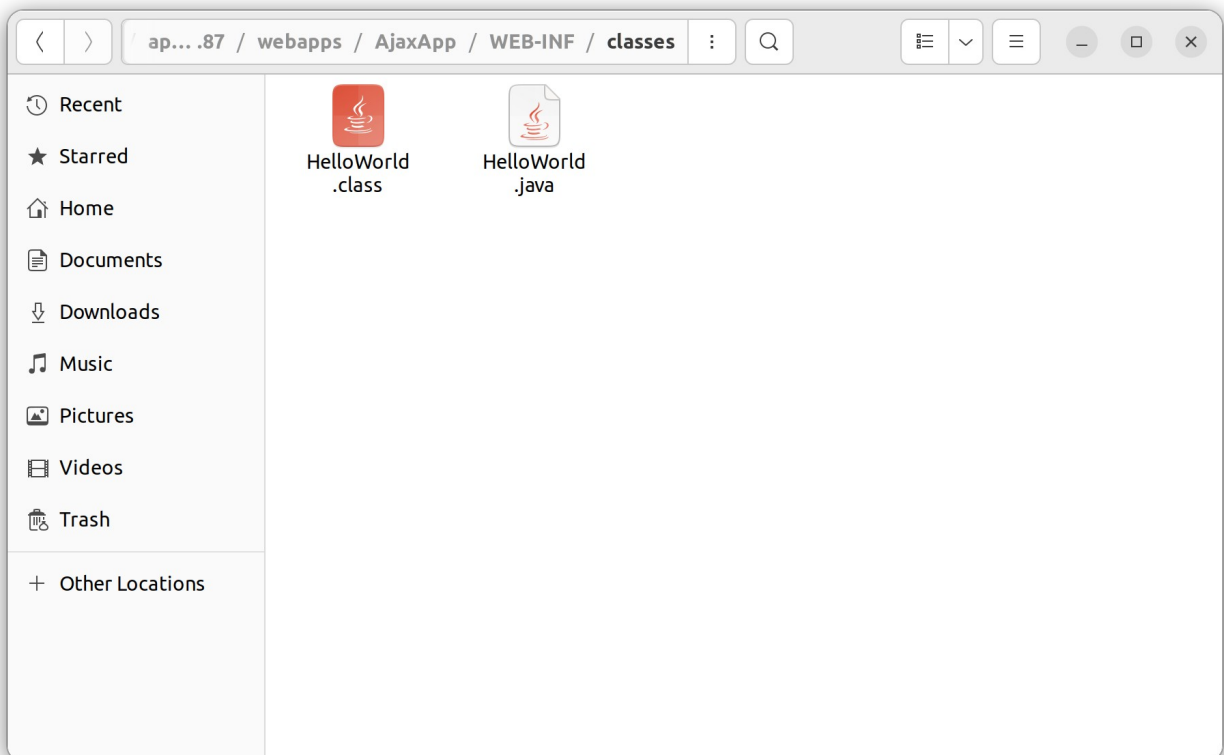
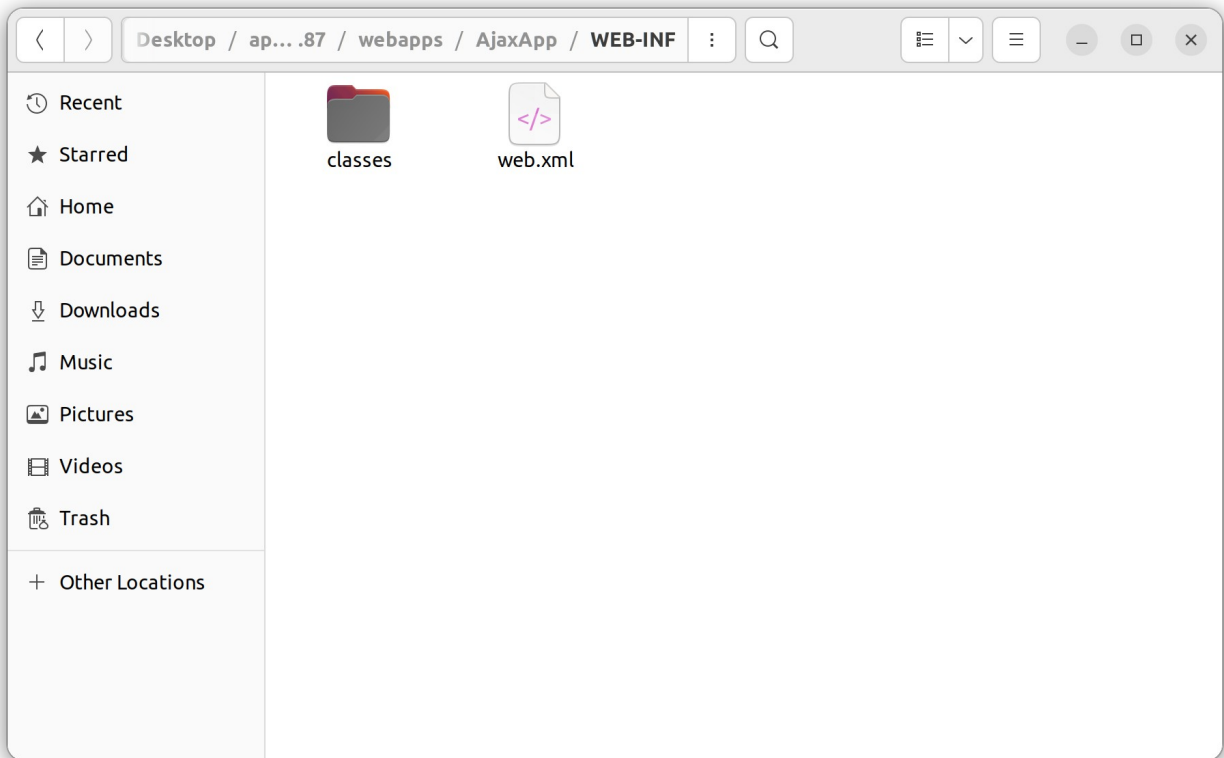
Develop a simple dynamic web application (“Hello Ajax”) using AJAX with Servlets. Use the given sample code and modify the event to Onclick to display “Hello Ajax” by overwriting the h1 tag text:

WebApp Structure:

ApacheTomcat→webapps







Program code:

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();
        String n = request.getParameter("name");
        out.println("<h4>" + n + " </h4>");
        out.close();
    }
}
```

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>
```

index.html

```
<html>
  <head>
    <title>My First Web Application</title>
    <script>

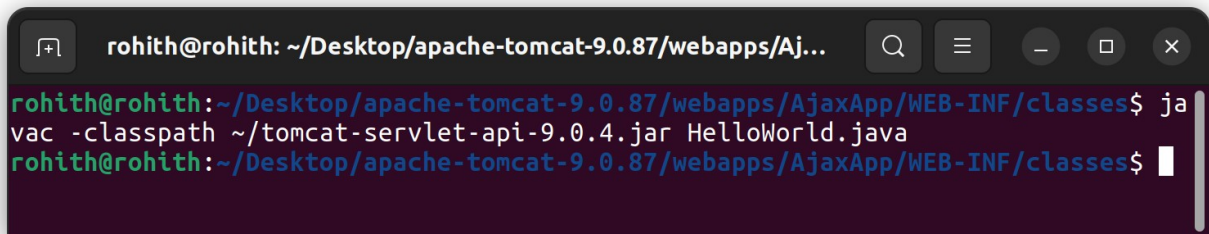
        function loadData() {
            var xhttp = new XMLHttpRequest();
            var n = document.getElementById("name").value;
            // window.alert(n);
            xhttp.onreadystatechange = function() {
                if (this.readyState == 4 && this.status == 200)

                    document.getElementById("content").innerHTML=this.responseText;
```

```
        };
        xhttp.open("GET","hello?name="+n,true);
        xhttp.send();
    }
</script>
</head>
<body>
    <h1 id="content">Iam Default Content</h1>
    <input type="text" id="name" oninput="loadData()">

</body>
</html>
```

Output:



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



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


Apache Tomcat/9.0.87

localhost:8080


HomeDocumentationConfigurationExamplesWikiMailing Lists

Find Help

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](#)

Server Status

Manager App

Host Manager

Developer Quick Start

[Tomcat Setup](#)

[First Web Application](#)

[Realms & AAA](#)

[JDBC DataSources](#)

[Examples](#)

[Servlet Specifications](#)

[Tomcat Versions](#)

Managing Tomcat

For security, access to the [manager webapp](#) is restricted. Users are defined in:

SCATALINA_HOME/conf/tomcat-users.xml

In Tomcat 9.0 access to the manager application is split between different users.

[Read more...](#)

[Release Notes](#)

[Changelog](#)

[Migration Guide](#)

[Security Notices](#)

Documentation

[Tomcat 9.0 Documentation](#)

[Tomcat 9.0 Configuration](#)

[Tomcat Wiki](#)

Find additional important configuration information in:

SCATALINA_HOME/RUNNING.txt

Developers may be interested in:

[Tomcat 9.0 Bug Database](#)

[Tomcat 9.0 JavaDocs](#)

[Tomcat 9.0 Git Repository at GitHub](#)

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

Other Downloads

Other Documentation

Get Involved

Miscellaneous

Apache Software Foundation

My First Web Application

localhost:8080/AjaxApp/

Iam Default Content



Rohith



Rohith

Status	Method	Domain	File	Initiator	Type	Transferred	Size	0 ms	2.56 s
200	GET	localhost:8080	hello?name=R	/AjaxApp/:15 (xhr)	html	178 B	12 B	2 ms	
200	GET	localhost:8080	hello?name=Ro	/AjaxApp/:15 (xhr)	html	179 B	13 B		2 ms
200	GET	localhost:8080	hello?name=Roh	/AjaxApp/:15 (xhr)	html	180 B	14 B		2 ms
200	GET	localhost:8080	hello?name=Rohi	/AjaxApp/:15 (xhr)	html	181 B	15 B		1 ms
200	GET	localhost:8080	hello?name=Rohit	/AjaxApp/:15 (xhr)	html	182 B	16 B		1 ms
200	GET	localhost:8080	hello?name=Rohith	/AjaxApp/:15 (xhr)	html	183 B	17 B		1 ms

6 requests87 B / 1.08 kB transferredFinish: 2.80 s

```
rohith@rohith: ~/Desktop/apache-tomcat-9.0.87/webapps/A...
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:~/Desktop/apache-tomcat-9.0.87/webapps/AjaxApp/WEB-INF/classes$ $
{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:~/Desktop/apache-tomcat-9.0.87/webapps/AjaxApp/WEB-INF/classes$
```

Best Practices to be followed:

1. Design before coding
2. Incremental coding
3. Usage of proper naming convention
4. Usage of Comments to the code
5. Indentation of code