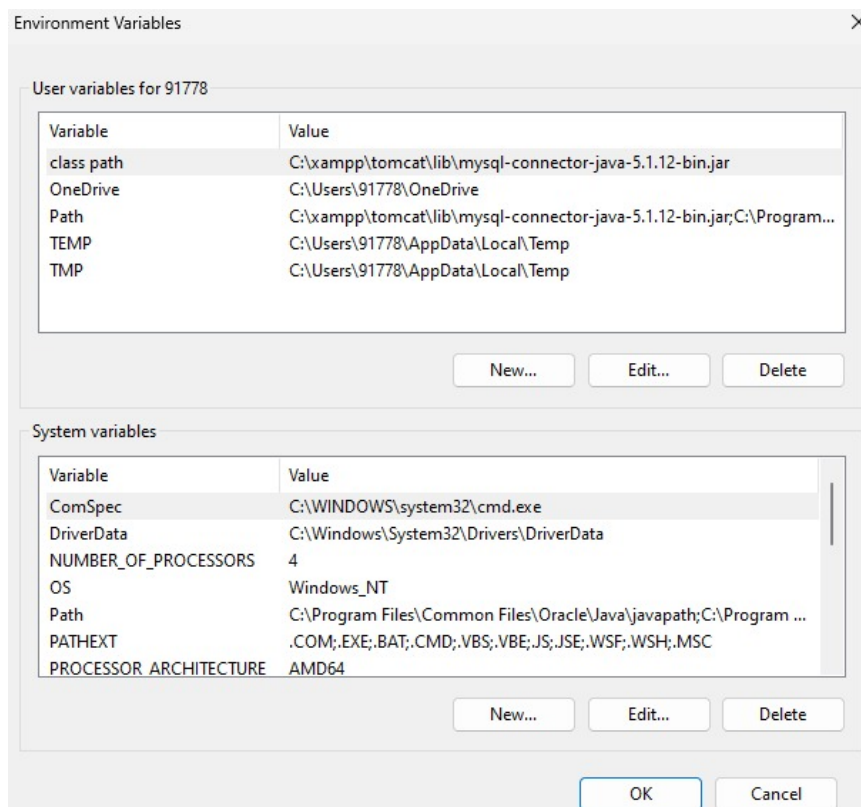# Deployment on Tomcat Webserver

Apache Tomcat is an open-source web server and servlet container developed by the Apache Software Foundation. It implements the Java Servlet, Java Server Pages (JSP), Java Expression Language, and Java WebSocket technologies. Tomcat is widely used for hosting Java applications, providing a robust environment for deploying dynamic web applications.

Step 1: Setting up the path.

- Go to settings

- Click Environment variables

- Set Path

- Edit Environment Variables:

- C:\Program Files (x86)\Java X Jdk-21\lib;
- C:\Program Files (x86)\Java\jre1.8\lib;
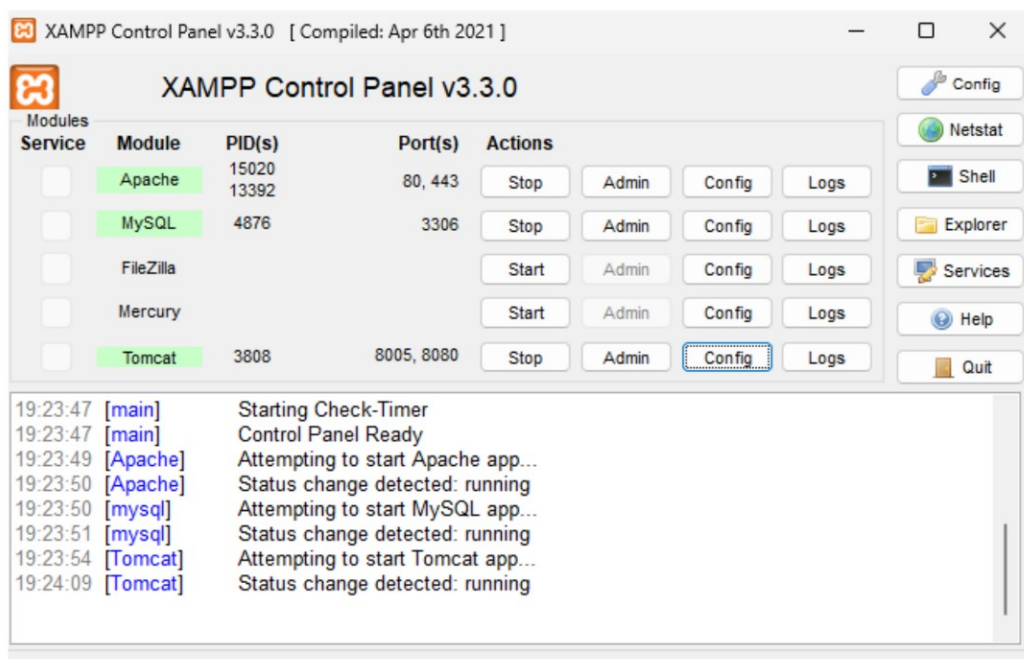- C:\xampp\tomcat\lib\servlet-api.jar;

Step2: Open XAMPP Control panel

Click "Start" on Apache for ports 80 and 443.

Click "Start" on MySQL for port 3306.

Click "Start" on Tomcat for ports 8005 and 8080.

You should see a green indication, which means the control panel is set up successfully

Step 3: Creating a Java file & class File Respectively:

Creating a "HelloWorld.964.java" file

import java.io.*;

import javax.servlet.*;

import javax.servlet.http.*;

public class HelloWorld964 extends HttpServlet {

  private String message;

  public void init() throws ServletException {

```
    message = " hello Uday how r u?";

  }

  public void doGet(HttpServletRequest request, HttpServletResponse response)

    throws ServletException, IOException {

    response.setContentType("text/html");

    PrintWriter out = response.getWriter();

    out.println("<h1>" + message + "</h1>");

  }

  public void destroy() {

  }

}
```

Now after saving this code, there will be a CLASS file created in the same folder which we have executed.

Copy the file and paste it in a folder as mentioned below:

- Open Local Disk (C)

- Click on xampp folder

- Press tomcat

- Go to webapps

- Click on examples

- Open WEB-INF

- In WEB-INF folder, you will find classes, click on it

- Paste the copied CLASS file in this folder

To execute a Java file, here's the corrected terminal line code:

C:/Users/91778/Downloads/lab> javac -cp C:\xampp\tomcat\lib\servlet-api.jar Helloworld.java

By running this command in the terminal, a .class file will be created in the same directory as the HelloWorld964.java file.

Step 4: Creating "web.xml" file

- Open XAMPP Control Panel.
- Beside Tomcat, you can find Stop, Admin, Config, Logs.
- Click on Config.
- You can find a file named web.xml.
- Click on that, which redirects to a Notepad file.

Write the below code in that file:

<servlet>

  <servlet-name>GITAM1</servlet-name>

  <servlet-class>HelloWorld964</servlet-class>

</servlet>

<servlet-mapping>

  <servlet-name>GITAM1</servlet-name>

  <url-pattern>/servlets/servlet/UdayKumar</url-pattern>

</servlet-mapping>

This process is known as servlet mapping.

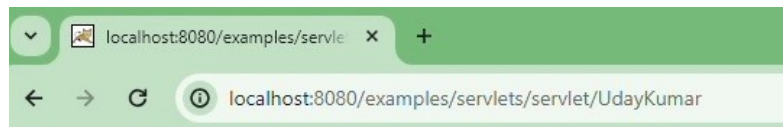## Step 5: Local Host Verification

Open the Web Browser:

- Click the link: localhost:8080/examples

If this works, then you are in the right process.

- Click on "Servlet Examples"

Now in the URL, add localhost:8080/examples/servlets/servlet/UdayKumar

This gives the final output as mentioned below.

hello everyone , how are you ?