**How to setup the Apache Tomcat webserver:**

**What is Apache tomcat:**

Apache Tomcat is open-source webserver and servlet container developed by Apache software foundation.

It used to deploy and run the java applications that use Java servlets, JSP (Java server pages)

And web socket technologies.

Apache tomcat is a light weight java-based web server that implements the Jakarta servlets, JSP and web socket applications.

It provides an environment where java applications can run by processing requests, executing servlets and generating dynamic web content.

It acts as both “A web server [ handles HTTP requests] and A Servlet container (Execute java servlets and JSP pages).

It is widely used for deploying java-based applications because free, fast, secure and easy to configure.

**Steps to configure Apache Tomcat:**

**Step-1:**

Go to Apache tomcat <https://tomcat.apache.org/download-11.cgi> and copy the tar file and paste in the VM or any machine and download it.

$ wget <https://dlcdn.apache.org/tomcat/tomcat-11/v11.0.13/bin/apache-tomcat-11.0.13.tar.gz>

**Step-2:**

Untar the file and go to inside the folder

$ tar -xvf apache-tomcat-11.0.13.tar.gz

$ cd apache-tomcat-11.0.13

**Step-3:**

1.We have to create tomcat user and provide the user roles

2. there are 2 different types of user roles in the tomcat

2.1 manager-gui

2.2 manager-script

**Manager-gui:** manager-gui role in apache tomcat gives the user access to the Tomcat manager web interface [GUI]

A browser-based tool that allows you to deploy, undeployed, start, stop and monitoring web applications running on tomcat.

**Manager-script:** manager-script role in Apache tomcat allows to access manager application through script or automation tool instead of web interface.

3. To provide the user and user roles tomcat provide the **conf** directory. And provide the

Below mentioned details in the **tomcat-user.xml**

$ cd apache-tomcat-11.0.13/conf

$ vi tomcat-users.xml

<role rolename="manager-gui"/>

<role rolename="manager-script"/>

<user username="tomcat" password="tomcat12345" roles="manager-gui,manager-script"/>

**Step-4:**

If you want to change default port number of the Apache tomcat.

$ cd apache-tomcat-11.0.13/conf

$ vi server.xml

**Step-5:**

**For accessing the tomcat need to delete the default server ip details in the manager and host-manager .**

$ cd apache-tomcat-11.0.13/webapps/manager/META-INF

$ vi context.xml

<Valve className="org.apache.catalina.valves.RemoteCIDRValve"

allow="127.0.0.0/8,::1/128" /> ----> delete these line

this is the security feature – to prevent unauthorized users from accessing the Tomcat Manager and Host manager from the other machines.

We are trying to access through remotely by using Jenkins or other server so we have to remove this .

$ vi apache-tomcat-9.0.111/webapps/host-manager/META-INF/context.xml

**Step-6:**

**Now we can start the tomcat server .**

**Everything like start, stop , shotdown from the bin folder.**

$ cd apache-tomcat-9.0.111/bin

$ ./startup.sh