Write Down all the steps needed to install tomcat from a repository.

Install Apache Tomcat 10 on Ubuntu 20.04

1. For security purposes, Tomcat should run under a separate, unprivileged user. Run the following command to create a user called tomcat:

sudo useradd -m -d /opt/tomcat -U -s /bin/false tomcat

1. First, update the package manager cache by running:

sudo apt update

1. Install the JDK by running the following command:

sudo apt install default-jdk

1. Navigate to the /tmp directory:

cd /tmp

1. Download the archive using wget by running the following command:

wget <https://dlcdn.apache.org/tomcat/tomcat-10/v10.0.20/bin/apache-tomcat-10.0.20.tar.gz>

1. Extract the archive you downloaded by running:

sudo tar xzvf apache-tomcat-10\*tar.gz -C /opt/tomcat --strip-components=1

1. Tomcat users are defined in /opt/tomcat/conf/tomcat-users.xml. Open the file for editing with the following command:

sudo nano /opt/tomcat/conf/tomcat-users.xml

<role rolename="manager-gui" />

<user username="manager" password="manager\_password" roles="manager-gui" />

<role rolename="admin-gui" />

<user username="admin" password="admin\_password" roles="manager-gui,admin-gui" />

1. To remove the restriction for the Manager page, open its config file for editing:

...

<Context antiResourceLocking="false" privileged="true" >

<CookieProcessor className="org.apache.tomcat.util.http.Rfc6265CookieProcessor"

sameSiteCookies="strict" />

<!-- <Valve className="org.apache.catalina.valves.RemoteAddrValve"

allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:0:1" /> -->

<Manager sessionAttributeValueClassNameFilter="java\.lang\.(?:Boolean|Integer|Long|Number|String)|org\.apache\.catalina\.filters\.Csr>

</Context>

1. You’ll store the tomcat service in a file named tomcat.service, under /etc/systemd/system. Create the file for editing by running:

sudo nano /etc/systemd/system/tomcat.service

[Unit]

Description=Tomcat

After=network.target

[Service]

Type=forking

User=tomcat

Group=tomcat

Environment="JAVA\_HOME=/usr/lib/jvm/java-1.11.0-openjdk-amd64"

Environment="JAVA\_OPTS=-Djava.security.egd=file:///dev/urandom"

Environment="CATALINA\_BASE=/opt/tomcat"

Environment="CATALINA\_HOME=/opt/tomcat"

Environment="CATALINA\_PID=/opt/tomcat/temp/tomcat.pid"

Environment="CATALINA\_OPTS=-Xms512M -Xmx1024M -server -XX:+UseParallelGC"

ExecStart=/opt/tomcat/bin/startup.sh

ExecStop=/opt/tomcat/bin/shutdown.sh

RestartSec=10

Restart=always

[Install]

WantedBy=multi-user.target

1. Reload the systemd daemon so that it becomes aware of the new service:

sudo systemctl daemon-reload

1. To enable Tomcat starting up with the system, run the following command:

sudo systemctl enable tomcat

1. Tomcat uses port 8080 to accept HTTP requests. Run the following command to allow traffic to that port:

sudo ufw allow 8080