

TOMCAT INSTALLATION

Step: 1

- Update the package index
- Command : `sudo apt update`

Step: 2

- Install OpenJDK11
- Command : **`sudo apt install openjdk-11-jdk`**
- Check the installed java version to confirm that OpenJDK 11 is installed
- command: **`java -version`**

Step: 3

- Create a Tomcat user
- Command : **`sudo useradd -m -U -d /opt/tomcat -s /bin/false tomcat`**

Step: 4

- Download tomcat
- Navigate to the /temp directory give : **`cd /temp`**
- Download tomcat version 8.5.100
- Command: **`sudo wget https://archive.apache.org/dist/tomcat/tomcat-8/v8.5.100/bin/apache-tomcat-8.5.100.zip`**

Step : 5

- Extract the tomcat package zip file
- Command : **`unzip apache-tomcat-*.zip`**
- Move the tomcat package to /opt/tomcat
- Command : **`sudo mv apache-tomcat-* /opt/tomcat/`**

Step: 6

- Create a symbolic link to the tomcat installation

- Create a symbolic link named latest that points to the tomcat installation directory ,making it easier to refer to the current version
- Command : **sudo ln -s /opt/tomcat/apache-tomcat-* /opt/tomcat/latest**

Step : 7

- Give the permission to tomcat user of tomcat installation directory
- Command : **sudo chown -R tomcat: /opt/tomcat**

Step : 8

- Create a systemd service file for tomcat
- Open a new service file
- Command: **sudo nano /etc/systemd/system/tomcat.service**
- Add the following content into it

[Unit]

Description=Tomcat 8.5 servlet container

After=network.target

[Service]

Type=forking

User=tomcat

Group=tomcat

Environment="JAVA_HOME=/usr/lib/jvm/java-11-openjdk-amd64/bin/java"

Environment="JAVA_OPTS=-Djava.security.egd=file:///dev/urandom"

Environment="CATALINA_BASE=/opt/tomcat/latest"

Environment="CATALINA_HOME=/opt/tomcat/latest"

Environment="CATALINA_PID=/opt/tomcat/temp/tomcat.pid"

Environment="CATALINA_OPTS=-Xms512M -Xmx1024M -server -XX:+UseParallelGC"

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

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

[Install]

WantedBy=multi-user.target

- Save and close the file

Step : 9 Start tomcat Automatically run

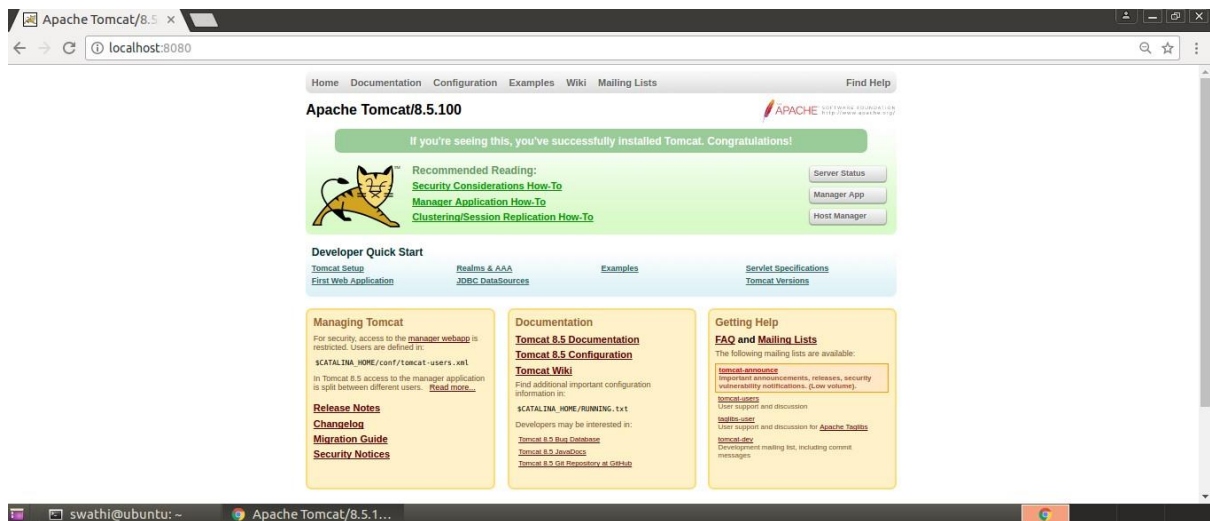
- Reload the system daemon to apply the new service file
- Command: **sudo systemctl daemon-reload**
- Start the tomcat service
- Command : **sudo systemctl start tomcat**
- Enable tomcat to start on boot:
- Command : **sudo systemctl enable tomcat**
- Verify tomcat is running or not give command : **sudo systemctl status tomcat**

Step :10 Starting tomcat Manually run (am facing issue in automatic start so currently am using manually process)

- Navigate to tomcat bin directory
- Command : **cd /opt/tomcat/latest/bin**
- Start tomcat to run **startup.sh** script
- Command : **./startup.sh**
- Stop tomcat use the **shutdown.sh** script
- Command : **./shutdown.sh**

Step : 11

- Access tomcat to open a web browser
- **http://localhost:8080**



DEPLOY AN APPLICATION IN TOMCAT SETUP

Step : 1

- Edit the tomcat users configuration
- Command : `sudo nano /opt/tomcat/latest/conf/tomcat-users.xml`
- Add manager user (add this inside the `<tomcat-users>` tag

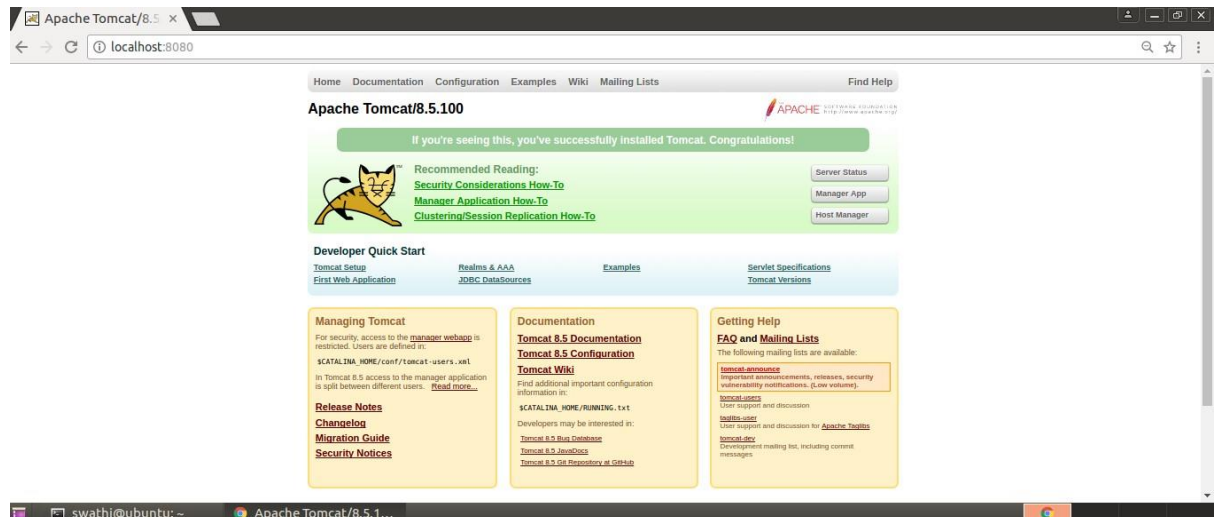
`<role rolename="manager-gui"/>`

`<user username="tomcat" password="tomcat" roles="manager-gui"/>`

```
<!--
<user username="admin" password="<must-be-changed>" roles="manager-gui"/>
<user username="robot" password="<must-be-changed>" roles="manager-script"/>
-->
<!--
The sample user and role entries below are intended for use with the
examples web application. They are wrapped in a comment and thus are ignored
when reading this file. If you wish to configure these users for use with the
examples web application, do not forget to remove the <!-- ..> that surrounds
them. You will also need to set the passwords to something appropriate.
-->
<!--
<role rolename="tomcat"/>
<role rolename="role1"/>
<user username="tomcat" password="<must-be-changed>" roles="tomcat"/>
<user username="both" password="<must-be-changed>" roles="tomcat,role1"/>
<user username="role1" password="<must-be-changed>" roles="role1"/>
-->
<role rolename="manager-gui"/>
<user username="tomcat" password="tomcat" roles="manager-gui"/>
</tomcat-users>
```

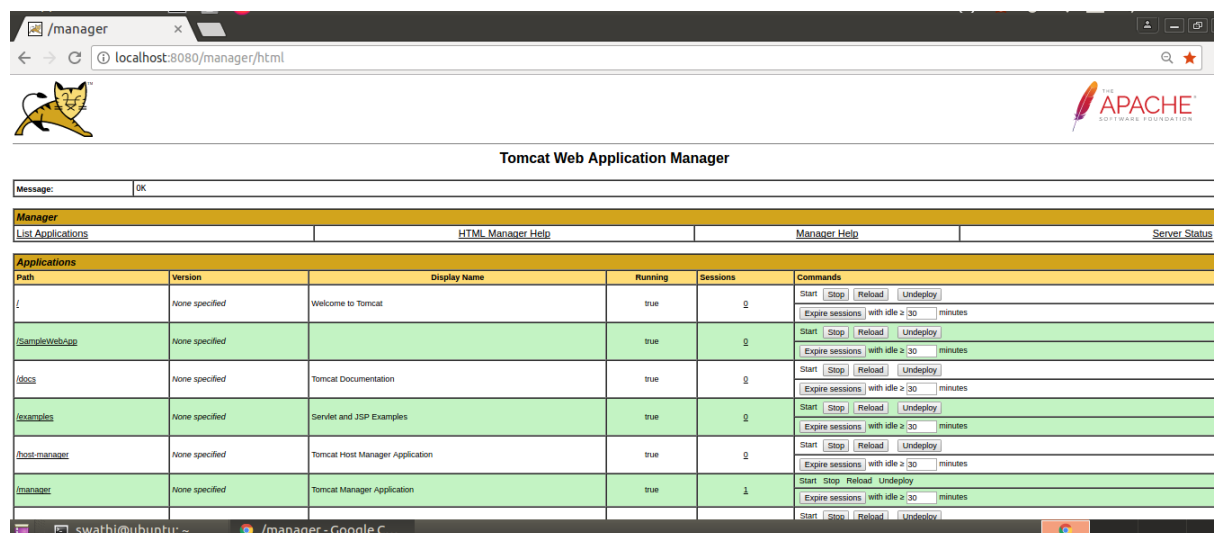
Step : 2

- Start the tomcat service if you're running in manually
- `cd /opt/tomcat/latest/bin`
- `./startup.sh`
- Or if you're using systemd give command: `sudo systemctl start tomcat`
- open a web browser and go to link <http://localhost:8080>



Step : 3

- In the tomcat show home page ,click Manager App and opened it



Step : 4

- Deploy a war file
- Go to google search sample war file for tomcat download it

- And upload in war file to deploy

Deploy directory or WAR file located on server	
Context Path (required):	<input type="text"/>
XML Configuration file path:	<input type="text"/>
WAR or Directory path:	<input type="text"/>
<input type="button" value="Deploy"/>	
WAR file to deploy	
Select WAR file to upload	<input type="button" value="Choose File"/> sample.war
<input type="button" value="Deploy"/>	

Step : 5

- Access the application give url : <http://localhost/project-name>
- localhost:8080/sample

