**Tomcat installation on EC2 instance:**

1. Install java

sudo yum install java-1.8.0-openjdk-devel

**Install Apache Tomcat**

1. Create directory

Cd /opt

1. Download the tomcat package from official website of tomcat copy the link address

Sudo yum wget <https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.68/bin/apache-tomcat-9.0.68.tar.gz>

1. Extract the file tar –xvzf /apache-tomcat-<version>.tar.gz
2. Cd /opt/apache-tomcat-9.0.68/bin
3. Give the executable permission to the startup.sh and shutdown.sh files

Chmod +x /opt/apache-tomcat-9.0.68/bin/startup.sh

Chmod +x /opt/apache-tomcat-9.0.68/bin/shutdown.sh

1. Make link for these files for access anywhere in the location

ln –s /opt/apache-tomcat-9.0.68/bin/startup.sh /usr/local/bin/tomcatup

ln –s /opt/apache-tomcat-9.0.68/bin/shutdown.sh /usr/local/bin/tomcatdown

1. Run tomcatup for starting the service

**Editing the port ranges:**

1. Edit the ports into the connector port

Cd /opt/ apache-tomcat-9.0.68/conf

Vi server.xml

Edit the port range in connector port field

Then save the file

Restart the service

Check port is accessing or not

Public\_ip of tomcat server:new port

**Adding the users and roles:**

1. Edit the context file for manger access from the browser
2. Find for the context.xml file

Find / -name context.xml

/opt/apache-tomcat-9.0.68/webapps/host-manager/META-INF/context.xml

/opt/apache-tomcat-9.0.68/webapps/manager/META-INF/context.xml

1. Edit the these 2 files

Vi /opt/apache-tomcat-9.0.68/webapps/host-manager/META-INF/context.xml

Comment the value class name field

<! - - - ->

1. Then save the files
2. Edit the tomcat.users.xml file for adding the users in it

Cd /opt/ apache-tomcat-9.0.68/conf

Vi tomcat-users.xml

Add the users

<user username=”deployer” password=”deployer” roles=”manager-script”/>

Save the file the restart the tomcat service

1. tomcatdown tomcatup

**Tomcat installation on EC2 instance**

**Pre-requisites**

1. EC2 instance with Java 11

**Install Apache Tomcat**

1. Create tomcat directory

cd /opt

1. Download tomcat packages from <https://tomcat.apache.org/download-80.cgi> onto /opt on EC2 instance

Note: Make sure you change <version> with the tomcat version which you download.

1. wget http://mirrors.fibergrid.in/apache/tomcat/tomcat-8/v8.5.35/bin/apache-tomcat-8.5.35.tar.gz
2. tar -xvzf /opt/apache-tomcat-<version>.tar.gz
3. give executing permissions to startup.sh and shutdown.sh which are under bin.
4. chmod +x /opt/apache-tomcat-<version>/bin/startup.sh
5. chmod +x /opt/apache-tomcat-<version>/bin/shutdown.sh

Note: you may get below error while starting tomcat incase if you dont install Java  
Neither the JAVA\_HOME nor the JRE\_HOME environment variable is defined At least one of these environment variable is needed to run this program

1. create link files for tomcat startup.sh and shutdown.sh
2. ln -s /opt/apache-tomcat-<version>/bin/startup.sh /usr/local/bin/tomcatup
3. ln -s /opt/apache-tomcat-<version>/bin/shutdown.sh /usr/local/bin/tomcatdown

tomcatup

**Check point :**

access tomcat application from browser on port 8080

* http://<Public\_IP>:8080

Using unique ports for each application is a best practice in an environment. But tomcat and Jenkins runs on ports number 8080. Hence lets change tomcat port number to 8090. Change port number in conf/server.xml file under tomcat home

cd /opt/apache-tomcat-<version>/conf

# update port number in the "connecter port" field in server.xml

# restart tomcat after configuration update

tomcatdown

tomcatup

**Check point :**

Access tomcat application from browser on port 8090

* http://<Public\_IP>:8090

1. now application is accessible on port 8090. but tomcat application doesnt allow to login from browser. changing a default parameter in context.xml does address this issue
2. #search for context.xml

find / -name context.xml

1. above command gives 3 context.xml files. comment () Value ClassName field on files which are under webapp directory. After that restart tomcat services to effect these changes. At the time of writing this lecture below 2 files are updated.
2. /opt/tomcat/webapps/host-manager/META-INF/context.xml
3. /opt/tomcat/webapps/manager/META-INF/context.xml
4. Restart tomcat services
5. tomcatdown then tomcatup
6. Update users information in the tomcat-users.xml file goto tomcat home directory and Add below users to conf/tomcat-users.xml file
7. <role rolename="manager-gui"/>
8. <role rolename="manager-script"/>
9. <role rolename="manager-jmx"/>
10. <role rolename="manager-status"/>
11. <user username="admin" password="admin" roles="manager-gui, manager-script, manager-jmx, manager-status"/>
12. <user username="deployer" password="deployer" roles="manager-script"/>
13. <user username="tomcat" password="s3cret" roles="manager-gui"/>
14. Restart serivce and try to login to tomcat application from the browser. This time it should be Successful