masum@dspace:~$ sudo apt-get install default-jdk default-jre

<http://192.168.48.101/>

01964 1048 512

masum@dspace:~$ sudo update-java-alternatives -l

java-1.11.0-openjdk-amd64 1111 /usr/lib/jvm/java-1.11.0-openjdk-amd64

masum@dspace:~$ sudo apt-get install maven

update-alternatives: using /usr/share/maven/bin/mvn to provide /usr/bin/mvn (mvn) in auto mode

masum@dspace:~$ sudo apt-get install tomcat8

masum@dspace:~$ sudo nano /etc/default/tomcat8

masum@dspace:~$ sudo touch /etc/authbind/byport/80

masum@dspace:~$ sudo touch /etc/authbind/byport/443

masum@dspace:~$ sudo chmod 0755 /etc/authbind/byport/80

masum@dspace:~$ sudo chmod 0755 /etc/authbind/byport/443

masum@dspace:~$ sudo chown tomcat8.tomcat8 /etc/authbind/byport/80

masum@dspace:~$ sudo chown tomcat8.tomcat8 /etc/authbind/byport/443

masum@dspace:~$ cd /etc/authbind/byport

masum@dspace:/etc/authbind/byport$ ls -l

total 0

-rwxr-xr-x 1 tomcat8 tomcat8 0 Nov 21 22:07 443

-rwxr-xr-x 1 tomcat8 tomcat8 0 Nov 21 22:07 80

masum@dspace:/etc/authbind/byport$ sudo nano /etc/tomcat8/server.xml

Find the connector for port 8080 and change it to port 80.

See example below.

<Connector port="80" protocol="HTTP/1.1"

enableLookups="false"

maxConnections="-1"

maxThreads="450"

maxHttpHeaderSize="16384"

connectionTimeout="20000"

URIEncoding="UTF-8"

redirectPort="443" />

masum@dspace:/etc/authbind/byport$ sudo nano /etc/tomcat8/tomcat-users.xml

<?xml version='1.0' encoding='utf-8'?>

<tomcat-users>

<role rolename="manager-gui"/>

<role rolename="manager-jmx"/>

<user username="dspace" password="XXXX" roles="manager-gui,manager-jmx"/>

</tomcat-users>

01964

masum@dspace:/etc/authbind/byport$ sudo nano /etc/default/tomcat8

512

masum@dspace:~$ sudo update-java-alternatives –l

output: masum@dspace:~$ sudo update-java-alternatives -l

java-1.11.0-openjdk-amd64 1111 /usr/lib/jvm/java-1.11.0-openjdk-amd64

java-1.8.0-openjdk-amd64 1081 /usr/lib/jvm/java-1.8.0-openjdk-amd64

sudo nano /etc/default/tomcat8

Remove the hash sign from in front of the authbind parameter and change authbind to yes as follows

# If you run Tomcat on port numbers that are all higher than 1023, then you

# do not need authbind. It is used for binding Tomcat to lower port numbers.

# NOTE: authbind works only with IPv4. Do not enable it when using IPv6.

# (yes/no, default: no)

AUTHBIND=yes

sudo touch /etc/authbind/byport/80

sudo touch /etc/authbind/byport/443

sudo chmod 0755 /etc/authbind/byport/80

sudo chmod 0755 /etc/authbind/byport/443

sudo chown tomcat8.tomcat8 /etc/authbind/byport/80

sudo chown tomcat8.tomcat8 /etc/authbind/byport/443

cd /etc/authbind/byport

ls -l

Now Tomcat has permission to use ports 80 and 443. See below for an example listing of the files in the **/etc/authbind/byport** folder.

dspace@dspace:/etc/authbind/byport# ls -l

total 0

-rwxr-xr-x 1 tomcat8 tomcat8 0 2011-06-10 18:33 443

-rwxr-xr-x 1 tomcat8 tomcat8 0 2011-06-10 18:33 80

**Step 5.2.2: Setup Tomcat to listen on insecure port 80**

Now we tell the Tomcat server to listen on the "authbind" ports. Edit the following file.

sudo nano /etc/tomcat8/server.xml

Find the connector for port 8080 and change it to port 80.

See example below.

<Connector port="80" protocol="HTTP/1.1"

enableLookups="false"

maxConnections="-1"

maxThreads="450"

maxHttpHeaderSize="16384"

connectionTimeout="20000"

URIEncoding="UTF-8"

redirectPort="443" />

**If enabled, comment out the AJP 1.3 connector. It is not needed.**

Save and exit the file.

**Step 5.2.3: Setup Tomcat to listen on secure port 443**

Please go to: <http://wiki.lib.sun.ac.za/index.php/SUNScholar/Secure_Internet_Connections> later, after installation to do secure port 443 setup.

For now and testing it is ok, just to use port 80 only for Tomcat connections.

Step 5.3: Setup Tomcat admin users

Type as follows:

sudo nano /etc/tomcat8/tomcat-users.xml

Delete all the contents of the file and add the following admin and manager roles with a password. *Replace XXXX with your password!*

<?xml version='1.0' encoding='utf-8'?>

<tomcat-users>

<role rolename="manager-gui"/>

<role rolename="manager-jmx"/>

<user username="dspace" password="XXXX" roles="manager-gui,manager-jmx"/>

</tomcat-users>

# You may pass JVM startup parameters to Java here. If unset, the default

# options (-Djava.awt.headless=true -Xmx128m) will be used.

#JAVA\_OPTS="-Djava.awt.headless=true -Xmx128m"

JAVA\_OPTS="-Djava.awt.headless=true –Xmx512m -Xms1024m -XX:MaxPermSize=1024m"

masum@dspace:/etc/authbind/byport$ sudo nano /etc/default/tomcat8

# Use the Java security manager? (yes/no, default: no)

TOMCAT8\_SECURITY=yes

masum@dspace:~$ sudo apt-get install net-tools

masum@dspace:~$ sudo netstat -tapn | grep java

tcp6 0 0 127.0.0.1:8005 :::\* LISTEN 2371/java

tcp6 0 0 :::80 :::\* LISTEN 2371/java

sudo apt-get install wget ca-certificates

wget --quiet -O - https://www.postgresql.org/media/keys/ACCC4CF8.asc | sudo apt-key add -

sudo sh -c 'echo "deb http://apt.postgresql.org/pub/repos/apt/ `lsb\_release -cs`-pgdg main" >> /etc/apt/sources.list.d/pgdg.list'

sudo apt-get update

sudo apt-get install postgresql postgresql-contrib

1048 512