

Create a SSL Certificate

Run the following command to generate the certificate to make Tomcat support SSL. Generate Certificate

```
keytool -genkey -alias tomcat -keyalg RSA -keystore /opt/tomcat/keystore/tomcat
```

The tool is going to ask some questions to feed the certificate. The certificate is going to be in the folder /opt/tomcat/keystore/tomcat and the name of the certificate is tomcat. You can check the certificate with the command `keytool -list -keystore /opt/tomcat/keystore/tomcat`.

Use the certificate in Tomcat

Edit the file /opt/tomcat/conf/server.xml and add an SSL connector.

Connector

```
<Connector port="8443" protocol="org.apache.coyote.http11.Http11NioProtocol"
    maxThreads="150" SSLEnabled="true" scheme="https" secure="true"
    clientAuth="false" sslProtocol="TLS"
        keystoreFile="C:\Java\apache-tomcat-8.0.23\keystore\tomcat"
        keystorePass="changeit" />
```

Restart tomcat and you are done. Now you can run your Applications under HTTPS in Tomcat.

Complete source code

tomcat-users.xml

```
<?xml version='1.0' encoding='utf-8'?>
<tomcat-users xmlns="https://tomcat.apache.org/xml"
    xmlns:xsi="https://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="https://tomcat.apache.org/xml tomcat-users.xsd"
    version="1.0">
    <user username="admin" password="admin" roles="manager-gui,admin-gui"/>
</tomcat-users>
```

server.xml

```
<?xml version='1.0' encoding='utf-8'?>
<Server port="8005" shutdown="SHUTDOWN">
    <Listener className="org.apache.catalina.startup.VersionLoggerListener"/>
    <Listener SSLEngine="on" className="org.apache.catalina.core.AprLifecycleListener"/>
    <Listener className="org.apache.catalina.core.JreMemoryLeakPreventionListener"/>
    <Listener className="org.apache.catalina.mbeans.GlobalResourcesLifecycleListener"/>
    <Listener className="org.apache.catalina.core.ThreadLocalLeakPreventionListener"/>
    <GlobalNamingResources>
        <Resource auth="Container" description="User database that can be updated and saved" ↔
            factory="org.apache.catalina.users.MemoryUserDatabaseFactory" name="UserDatabase" ↔
            pathname="conf/tomcat-users.xml" type="org.apache.catalina.UserDatabase"/>
    </GlobalNamingResources>
    <Service name="Catalina">
        <Connector connectionTimeout="20000" port="8080" protocol="HTTP/1.1" redirectPort="8443" ↔
            />
        <Connector port="8443" protocol="org.apache.coyote.http11.Http11NioProtocol"
            maxThreads="150" SSLEnabled="true" scheme="https" secure="true"
            clientAuth="false" sslProtocol="TLS"
                keystoreFile="C:\Java\apache-tomcat-8.0.23\keystore\tomcat"
                keystorePass="changeit" />
        <Connector port="8009" protocol="AJP/1.3" redirectPort="8443"/>
    <Engine defaultHost="localhost" name="Catalina">
        <Realm className="org.apache.catalina.realm.LockOutRealm">
```

```
<Realm className="org.apache.catalina.realm.UserDatabaseRealm" resourceName="↔
    UserDatabase"/>
</Realm>
<Host appBase="webapps" autoDeploy="true" name="localhost" unpackWARs="true">
    <Valve className="org.apache.catalina.valves.AccessLogValve" directory="logs" ↔
        pattern="%h %l %u %t \"%r\" %s %b" prefix="localhost_access_log" suffix=".txt"/>

</Host>
</Engine>

</Service>
</Server>
```

