

1. Goals

The goal of this lesson is simple - to take you through the basics of profiling your running API and reading the JMX data it exposes.

2. Lesson Notes

Configure a Tomcat server to accept remote connections

Step 1 - add the JMX listener to the Tomcat config:

```
sudo vim $TOMCAT_INSTALL_DIR/tomcat/conf/server.xml
```

```
<Listener className="org.apache.catalina.mbeans.JmxRemoteLifecycleListener" rmiRegistryPortPlatform="10001" rmiServerPortPlatform="10002"/>
```

Step 2 - download the JMX jar into the Tomcat lib directory:

```
cd $TOMCAT_INSTALL_DIR/tomcat/lib
wget http://apache.javapipeline.com/tomcat/tomcat-8/v8.0.30/bin/extras/catalina-jmx-remote.jar
sudo chmod a+rw catalina-jmx-remote.jar
```

Step 3 - Configure the runtime

```
export CATALINA_OPTS="-Xms512m -Xmx1024m -Dcom.sun.management.jmxremote=true -Dcom.sun.management.jmxremote.ssl=false -Dcom.sun.management.jmxremote.auth
```

Then, in VisualVM - define the remote host and connection:

- first, add a remote connection, with just the host

- then, within that, add the full JMX connection:

```
service:jmx:rmi:///ec2-54-209-18-157.compute-1.amazonaws.com:10002/jndi/rmi:///ec2-54-209-18-157.compute-1.amazonaws.com:10001/jmxrmi
```

3. Resources

- The VisualVM Homepage

- VisualVM - MBeans

- VisualVM - JMX Connections

- Monitoring and management over JMX