

Configure a JNDI DataSource in Tomcat

There are two places where the configuration takes place. The context.xml file under \$CATALINA_BASE/conf and in web.xml which will be placed at WEB_INF/web.xml.

Changing the context.xml File

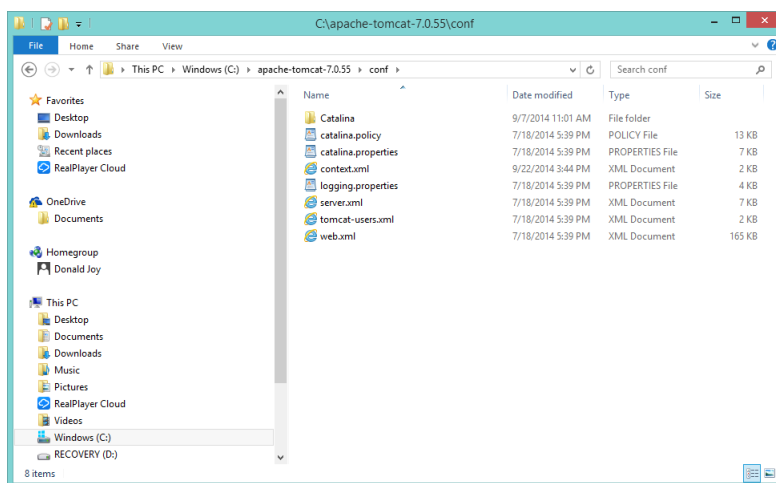
The context.xml file can be placed in META_INF directory of the web application or in the \$CATALINA_BASE/conf directory. If a resource definition is to be available to all web applications then it is placed in the \$CATALINA_BASE/conf directory.

The following resource definition is to be in the context element of \$CATALINA_BASE/conf/context.xml

```
<Resource
    url="jdbc:mysql://localhost:3306/usersdb"
    driverClassName="com.mysql.jdbc.Driver"
    password="Nobleprog123$"
    username="nobleprog"
    maxWait="10000"
    maxIdle="30"
    maxActive="100"
    type="javax.sql.DataSource"
    auth="Container"
    name="jdbc/userdb"/>
```

Remember that if you are working in Eclipse the context.xml file within Eclipse must also be changed, see the images below:

The actual Tomcat installation:



C:\Eclipse Installations\workspace\Servers\Tomcat v7.0 Server at localhost-config

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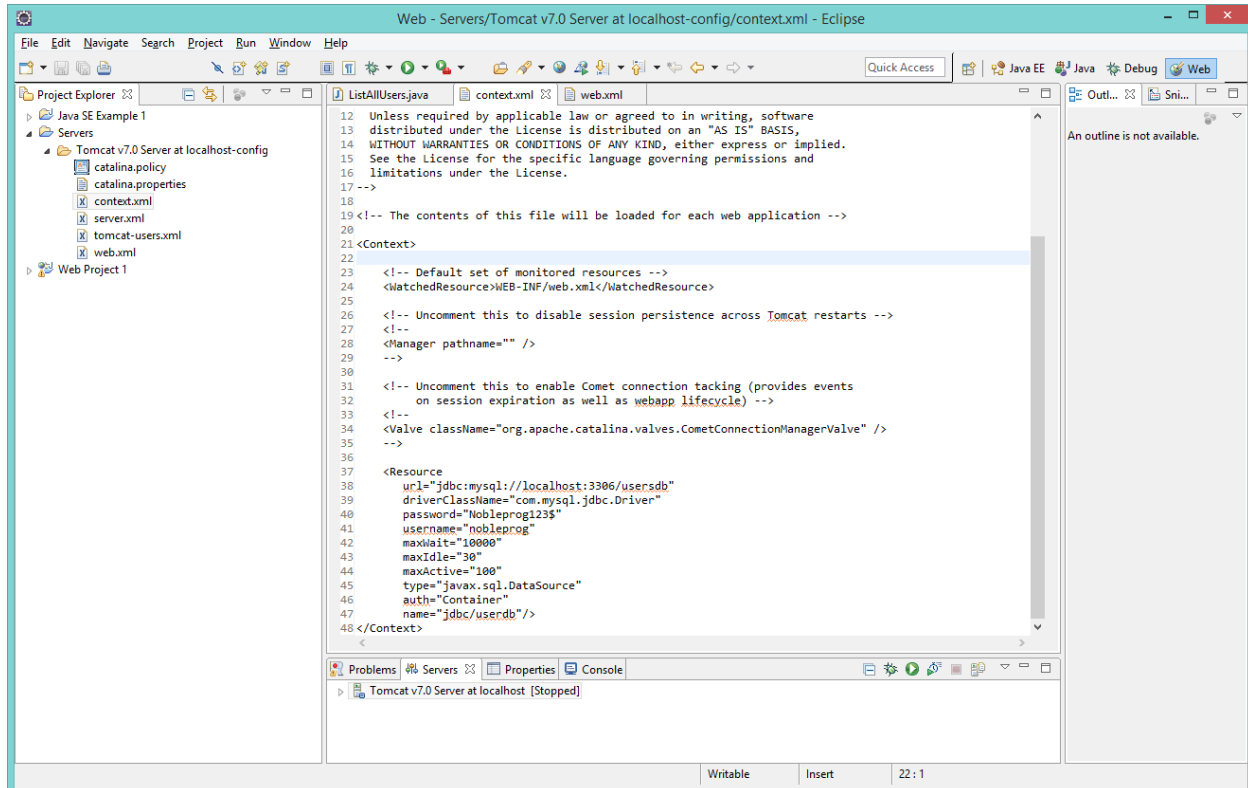
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Name	Date modified	Type	Size
catalina.policy	9/7/2014 10:47 AM	POLICY File	12 KB
catalina.properties	9/7/2014 10:47 AM	PROPERTIES File	7 KB
context.xml	9/7/2014 10:47 AM	XML Document	2 KB
server.xml	9/7/2014 1:09 PM	XML Document	7 KB
tomcat-users.xml	9/7/2014 10:47 AM	XML Document	2 KB
web.xml	9/7/2014 10:47 AM	XML Document	160 KB

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6 items

This gives a Context.xml file for Tomcat within Eclipse like the image below:



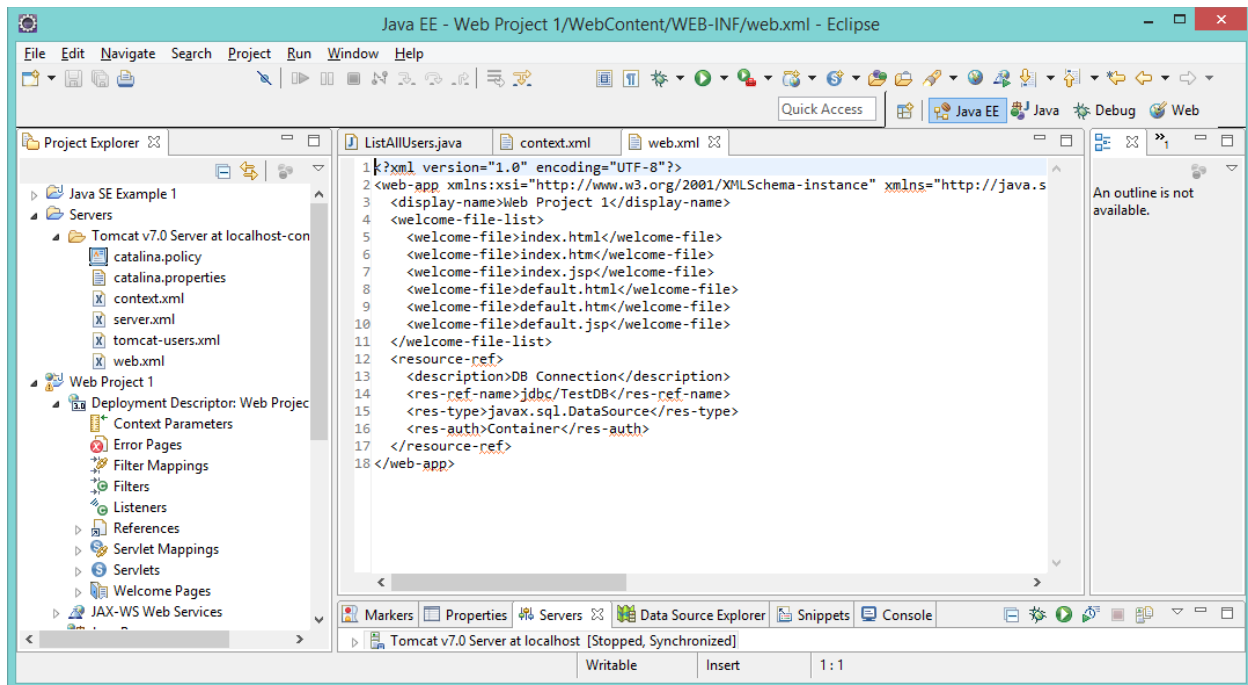
Changing the web.xml File

The web.xml file for the project will end up in the WEB_INF directory in the WAR. Within Eclipse it is called the Deployment Descriptor, see the image above. You can generate a beginning web.xml stub by right clicking on the Dynamic Web Project (Web Project 1) and choosing "Java EE Tools/Generate Deployment Descriptor Stub". This gives a beginning web.xml which can be opened, it is in the WEB_INF directory under WebContent.

The following will be added as the content of the resource-ref element.

```
<resource-ref>
  <description>DB Connection</description>
  <res-ref-name>jdbc/userdb</res-ref-name>
  <res-type>javax.sql.DataSource</res-type>
  <res-auth>Container</res-auth>
</resource-ref>
```

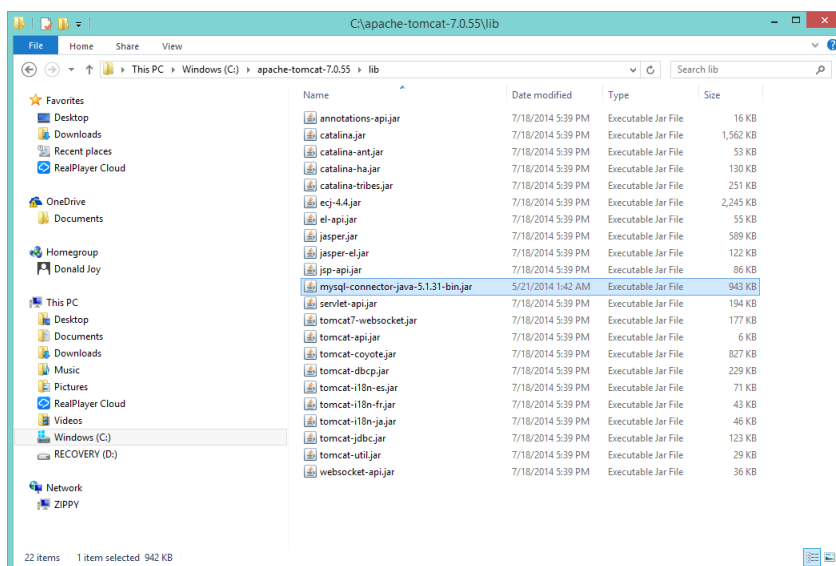
Again it is easier to make sure that the file is correct by viewing it in a Text Editor. Now add a child resource-ref element to the web-app element as shown in the image below.



Adding the MySQL jar to the Library

The driver for MySQL must be added to a library. There are two ways of adding the MySQL Java connector to Tomcat.

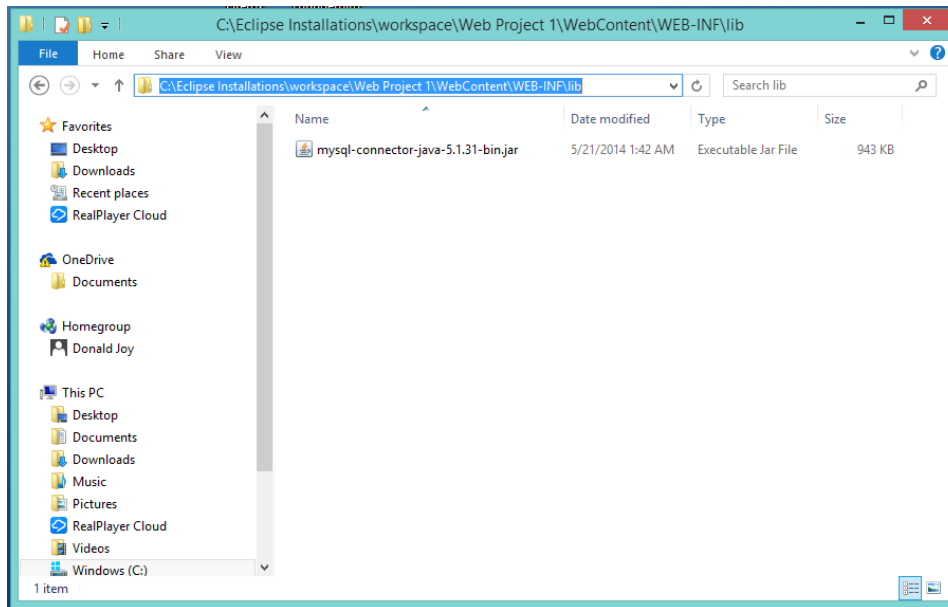
The first is to place the JAR file for the connector within the lib directory of Tomcat. This option makes sense if several Web Applications that are installed on the Tomcat system are all going to connect to the database. If this is true then it is best to make the connector JAR file global by placing it at the \$CATALINA_BASE/lib level. This is shown in the image on the image below.



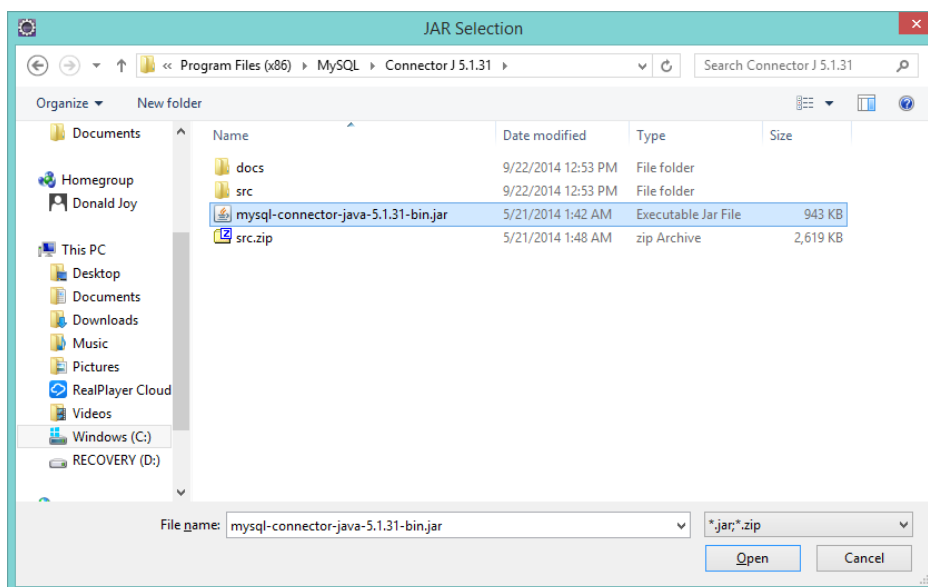
The second is to add the JAR to the library directory of the Web Application. It is located at WebContent/WEB-INF/lib folder of the Web Application in the Eclipse workspace directory. Use the Windows File Manager to place the JAR file then refresh Eclipse and it will show the JAR in the lib directory.

Note that the JAR file should not be in both locations as it can potentially cause problems if the JAR classes are loaded by different class loaders.

The image below shows the connector JAR in the folder.



The connector JAR is located in the MySQL Installation directory under directory "Connector J..." as shown in the image below



Summary

This finishes the setup of the JNDI datasource in Eclipse and Tomcat. The context.xml file has been modified to include the definition of the datasource resource both in \$CATALINA_BASE/conf and in the Eclipse workspace for the Tomcat server. The web.xml file has been created and modified so that it has a resource reference to the datasource. The connector JAR file has been placed in either the Global Tomcat library or in the Web Application library (WEB-INF/lib). The web.xml and connector JAR will be put into the WAR as it is exported from Eclipse and be placed on Tomcat as the WAR is deployed.