

Install xPetstore on Tomcat with C-JDBC as the database tier running with Hypersonic Backends

1. What this document is about

This document contains all the steps to install xPetstore with C-JDBC as the database tier.

2. Download

It is possible to get the latest xPetstore version at the following URL:
http://sourceforge.net/project/showfiles.php?group_id=67431
We will work with the servlet version.

The latest C-JDBC release can be found at the following URL:
http://forge.objectweb.org/project/showfiles.php?group_id=42
It is easier to use the graphic installer denoted by the .jar file.

3. Install C-JDBC

You can refer to the C-JDBC tutorial if you need more information on how to install C-JDBC. This document is available online at:
<http://c-jdbc.objectweb.org/current/doc/tutorial.pdf>

4. Install TOMCAT

4.1. Set TOMCAT_HOME

Make sure that the variable TOMCAT_HOME is set to the Tomcat home directory

4.2. Configure Tomcat

This is a copy of the following page:

http://xpetstore.sourceforge.net/setup_tomcat-4.x.html

- Copy the JDBC driver to TOMCAT_HOME/common/lib
- Edit TOMCAT_HOME/conf/server.xml and make sure that it looks

like this:

```
<Server port="8005" shutdown="SHUTDOWN" debug="0">
...
<Service name="Tomcat-Standalone">
...
<Engine name="Standalone" defaultHost="localhost" debug="0">
```

```

<Logger className="org.apache.catalina.logger.FileLogger"
  prefix="catalina_log." suffix=".txt"
  timestamp="true"/>

<Realm className="org.apache.catalina.realm.UserDatabaseRealm" debug="0"
resourceName="UserDatabase"/>

<Host name="localhost" debug="0" appBase="webapps" unpackWARs="true" autoDeploy="true"
liveDeploy="true">
  ...
  <!-- xPetstore -->
  <Context path="/xpetstore-servlet" docBase="xpetstore-servlet"
    debug="0" reloadable="true" crossContext="true">
    <!-- xPetsore Logger -->
    <Logger className="org.apache.catalina.logger.FileLogger"
      directory="logs"
      prefix="xpetstore-servlet_log."
      suffix=".txt"
      timestamp="true"
    />

    <!-- xPetstore datasource -->
    <Resource name="jdbc/xpetstoreDS" auth="Container" type="javax.sql.DataSource"/>
    <ResourceParams name="jdbc/xpetstoreDS">
      <parameter>
        <name>factory</name>
        <value>org.apache.commons.dbcp.BasicDataSourceFactory</value>
      </parameter>
      <parameter>
        <name>username</name>
        <value>your-db-user</value>
      </parameter>
      <parameter>
        <name>password</name>
        <value>your-db-password</value>
      </parameter>
      <parameter>
        <name>driverClassName</name>
        <value>your-db-driver</value>
      </parameter>
      <parameter>
        <name>url</name>
        <value>your-db-url</value>
      </parameter>
    </ResourceParams>

    <!-- xPetstore mail session -->
    <Resource name="mail/xpetstore/MailSession"
      auth="Container" type="javax.mail.Session"/>
    <ResourceParams name="mail/xpetstore/MailSession">
      <parameter>
        <name>mail.smtp.host</name>
        <value>your-mail-host</value>
      </parameter>
    </ResourceParams>
  </Context>
  ...
</Host>
</Engine>
</Service>
</Server>

```

4.3. Database parameters

The default values for cjdbc that we need to write are:

- o username: <value>user</value>
- o password: <value></value>
- o driverClassName: <value>org.objectweb.cjdbc.driver.Driver

o url: <value>jdbc:cjdbc://localhost:25322/myDB</value>

5. Running xPetstore

5.1. Start C-JDBC

We will use the raidb1-demo included in the C-JDBC release. After installing C-JDBC and be sure the CJDBC_HOME environment variable is set.

- o cd CJDBC_HOME/bin
- o ./demo-raidb1.sh

This will also start hsqldb databases (3 in total, two used for replication and one for recovery, see the tutorial for more details)

5.2. Start the application server

- * For Tomcat, run the following commands:
 - o cd TOMCAT_HOME/bin
 - o ./startup.sh

5.3. Select the Application Server

- * Edit the file XPETSTORE_HOME/conf/as/appserver.properties and set the property app.server to **tomcat**. You may want to review XPETSTORE_HOME/conf/as/tomcat.properties to make sure that all the properties are properly set.

5.4. Select the Database

- * Create the directory XPETSTORE_HOME/lib/main/org.objectweb.cjdbc
- * Copy the C-JDBC driver from CJDBC_HOME/drivers to the new directory.
- * Edit the file XPETSTORE_HOME/conf/db/database.properties and set the property db.name to **cjdbc**
- * Copy the file hsqldb.properties to a file named cjdbc.properties
- * Edit the file XPETSTORE_HOME/conf/db/cjdbc.properties to configure the database.

You must set the following properties: (with the values mentioned above)

- o db.driver=org.objectweb.cjdbc.driver.Driver
- o db.url=jdbc:cjdbc://localhost/myDB
- o db.user=user
- o db.password=
- o db.classpath=\${lib.dir}/main/org.objectweb.cjdbc/c-jdbc-driver.jar

PS: Don't change the hibernate properties.

5.5. Build the source code

```
* cd XPETSTORE_HOME/xpetstore-servlet
* ./build.sh
```

This command will :

- o Generate Java code in XPETSTORE_HOME/xpetstore-servlet/build/java
- o Generate the deployment descriptors at XPETSTORE_HOME/xpetstore-servlet/build/META-INF and XPETSTORE_HOME/xpetstore-servlet/build/WEB-INF
- o Compile the source code and build .jar, .war and .ear files at XPETSTORE_HOME/dist

5.6. Deploy the application

```
* ./build.sh deploy
```

5.7. Initialize the database

```
* ./build.sh db
```

5.8. Run the application

```
* For xpetstore-servlet: http://localhost:8080/xpetstore-servlet/
```

