HowTo set up datasource in Wildfly 9

In example for MySQL

1. Download MySQL-Connector (mvnrepository.com/artifact/**mysql**/**mysql**-**connector**-**java**)
2. Create folder structure below WILDFLY_HOME/modules/system/layers/base/com/mysql/main/
3. Add mysql-connector-java-x.x.x.jar as well as module.xml with following content:

```
<module xmlns="urn:jboss:module:1.3" name="com.mysql">
  <resources>
    <resource-root path="mysql-connector-java-5.1.35-bin.jar"/>
  </resources>
  <dependencies>
    <module name="javax.api"/>
    <module name="javax.transaction.api"/>
  </dependencies>
</module>
```
module.xml

4. Register the driver by adding the following tags to the standalone.xml:

```
<drivers>
   ...
    <driver name="mysql" module="com.mysql">
       <driver-class>com.mysql.jdbc.Driver</driver-class>
       <xa-datasource-
class>com.mysql.jdbc.jdbc2.optional.MysqlXADataSource</xa-datasource-class>
    </driver>
</drivers>
```
standalone.xml

or if you are using the domain version, doing so like above for the domain.xml.

5. To create the Datasource, enter the Wildfly web console under (default) localhost:9990/
   If you enter the first time, follow the shown commands to create a new user.
   After login, create new Datasource under Configuration/Datasources/XA (or Non-XA in case).

Same procedure via CLI Console (step 4 and 5)

(https://docs.jboss.org/author/display/WFLY9/Admin+Guide#AdminGuide-RunningtheCLI)

4. For standalone enter:

```
[standalone@localhost:9990 /] /subsystem=datasources/jdbc-driver=mysql:add(\
  driver-name=mysql,\ driver-module-name=com.mysql,\
  driver-class-name=com.mysql.jdbc.Driver,\
  driver-xa-datasource-class-
name=com.mysql.jdbc.jdbc2.optional.MysqlXADataSource\
)
```
CLI-Command standalone version

or for domain:

```
[domain@localhost:9990 /] /profile=full/subsystem=datasources/jdbc-
driver=mysql:add(\
  driver-name=mysql,\
  driver-module-name=com.mysql,\
  driver-class-name=com.mysql.jdbc.Driver,\
  driver-xa-datasource-class-
name=com.mysql.jdbc.jdbc2.optional.MysqlXADataSource\
)
```
CLI-Command domain version

5. Enter datasource with:
   https://docs.jboss.org/author/display/WFLY9/DataSource+configuration

```
[standalone@localhost:9990 /] /subsystem=datasources/data-source=MySqlDS:add(\
  jndi-name=java:/mysql/xa-datasources/jee7/chapter3,\
  driver-name=mysql,\
  connection-url=jdbc:mysql://localhost:3306/test
)
```
CLI-Command datasource

[Finished]

6. To access, example from META-INF/persistence.xml

```xml
<persistence-unit name="chapter3_crud-pu">
    <provider>org.hibernate.jpa.HibernatePersistenceProvider</provider>
    <jta-data-source>java:/mysql/xa-datasources/jee7/chapter3</jta-data-
source>
    <exclude-unlisted-classes>false</exclude-unlisted-classes>
    <properties>
        <property name="javax.persistence.schema-generation.database.action"
value="drop-and-create"/>
    </properties>
```
persistence.xml

Extra infos:
- ever use JTA datasource, never RESOURCE_LOCAL
  http://www.adam-bien.com/roller/abien/entry/don_t_use_jpa_s
- where to deploy the persistence.xml
  https://docs.jboss.org/author/display/WFLY9/JPA+Reference+Guide#JPAReferenceGuide-
Deployment
- Logging on JPA or JDBC-Level
  https://docs.jboss.org/author/display/WFLY9/JPA+Reference+Guide#JPAReferenceGuide-
Troubleshooting