

# Configuring an XA data source

## Goals

After completing this section, students should be able to do the following:

- Configure an XA data source.

## Configuring an XA data source

An XA data source can participate in a transaction that spans multiple resources (such as a database, message queue, or legacy systems) and roll back the changes made if a failure is detected in one of the resources. This strategy can help prevent data loss if any aspect of the transaction fails.

The following XML demonstrates a MySQL XA data source:

```
<datasources>
  <xa-datasource jndi-name="..." pool-name="..."> <xa-
    datasource-property name="ServerName">
      localhost ❶
    </xa-datasource-property> <xa-
      datasource-property name="DatabaseName">
        bookstore ❷
      </xa-datasource-property>
      <driver>mysql</driver>
      <security>
        <user-name>admin</user-name>
        <password>admin</password> </
      security> </xa-
    datasource> <drivers>

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

- ❶ The host name for the database server.
- ❷ The database name for the data source.
- ❸ The XA data source class for the JDBC driver provided by the JDBC driver documentation.

The following CLI command creates an XA data source:

```
[connected /] xa-data-source add --name=<internal_datasource_name> \ --jndi-
name=<jndi_name> --driver-name=<driver_name> --user-name=<login> \ --
password=<password> --xa-datasource-properties={"ServerName"=>"<server>",
"DatabaseName"=>"<db_name>"}
```

The definition of an XA data source versus a non-XA data source is basically the same, except for a few minor differences. Both ServerName and

**DatabaseName** are required as properties, instead of requiring the user to provide the connection URL.

The database driver can be used for XA and non-XA data sources; however, an **xa-datasource-class** must be defined in the **<driver>** definition. This information is provided in the JDBC driver documentation.

The following CLI command registers the controller with a specified XA data source class:

```
/subsystem=datasources/jdbc-driver=mysql:add(driver-name=<name>,driver-module name=<module>,driver-xa-datasource-class-name=<xaclass>)
```

Here is a sample CLI command for a MySQL driver configured to work with an XA data source:

```
[connected /] /  
subsystem=datasources/jdbc-driver=mysql:add\ (driver-  
name=mysql,driver-module-name\  
=com.mysql,driver-xa-datasource-class  
name=com.mysql.jdbc.jdbc2.optional.MysqlXADataSource)
```