9.4.4 Data Source Configuration

Step 10: Configure the data source for the Ontology Cell

The Ontology cell needs to communicate with your **i2b2 database** and in order to do this it needs to know where the tables for the **metadata** and **hivedata** reside. Therefore the **tenth** and **final step** in the cell configuration process is to configure the data sources for the Ontology Cell. This information is configured in the **ont-ds.xml** file.

Things to keep in mind when configuring your datasources:

- The **metadata** and **hivedata** tables were created during the chapter on Data Installation.

- The **OntologyDemoDS** points to the data source for your metadata tables.
  - The **<user-name>** and **<password>** need to match the database user you set up for your metadata. In the i2b2 demo database this is *i2b2metadata* and *demouser*.

- The **OntologyBootStrapDS** points to the data source for your ONT_DB_LOOKUP table which is a hivedata table.
  - The **<user-name>** and **<password>** need to match the database user you set up for your hivedata. In the i2b2 demo database this is *i2b2hive* and *demouser*.

- The **<connection_url>** needs to have the following:
  - The correct JDBC information for your type of database.
  - The correct location of the database containing your metadata or hivedata tables. *(These may or may not reside in the same location)*

- Both the **<driver-class>** and **<driver>** need to accurately reflect the type of database you are connecting to.

Steps to configure data sources

The following steps define how to configure your data sources for the Ontology Cell. These steps include example configurations for Oracle, PostreSQL and SQL Server.

1. The **ont-ds.xml** file is located in the following directory:
YOUR_I2B2_SRC_DIR\edu.harvard.i2b2.ontology\etc\jboss
2. Open the ont-ds.xml file to configure your data sources. *(see examples shown below)*

Oracle Database Configuration

```
<datasource jta="false" jndi-name="java:/OntologyDemoDS"
                pool-name="OntologyDemoDS" enabled="true" use-ccm="false">
        <connection-url>jdbc:oracle:thin:@localhost:1521:xe</connection-url>
        <driver-class>oracle.jdbc.OracleDriver</driver-class>
        <driver>ojdbc6.jar</driver>
        <security>
                <user-name>i2b2metadata</user-name>
                <password>demouser</password>
        </security>
        <validation>
                <validate-on-match>false</validate-on-match>
                <background-validation>false</background-validation>
        </validation>
        <statement>
                <share-prepared-statements>false</share-prepared-statements>
        </statement>
</datasource>
<datasource jta="false" jndi-name="java:/OntologyBootStrapDS"
        pool-name="OntologyBootStrapDS" enabled="true" use-ccm="false">
        <connection-url>jdbc:oracle:thin:@localhost:1521:xe</connection-url>
        <driver-class>oracle.jdbc.OracleDriver</driver-class>
        <driver>ojdbc6.jar</driver>
        <security>
                <user-name>i2b2hive</user-name>
                <password>demouser</password>
        </security>
        <validation>
                <validate-on-match>false</validate-on-match>
                <background-validation>false</background-validation>
        </validation>
        <statement>
                <share-prepared-statements>false</share-prepared-statements>
        </statement>
</datasource>
```

PostgreSQL Database Configuration

```
<datasource jta="false" jndi-name="java:/OntologyDemoDS"
                pool-name="OntologyDemoDS" enabled="true" use-ccm="false">
        <connection-url>jdbc:postgresql://localhost:5432/i2b2</connection-url>
        <driver-class>org.postgresql.Driver</driver-class>
        <driver>postgresql-9.2-1002.jdbc4.jar</driver>
        <security>
                <user-name>i2b2metadata</user-name>
                <password>demouser</password>
        </security>
        <validation>
                <validate-on-match>false</validate-on-match>
                <background-validation>false</background-validation>
        </validation>
        <statement>
                <share-prepared-statements>false</share-prepared-statements>
        </statement>
</datasource>
<datasource jta="false" jndi-name="java:/OntologyBootStrapDS"
        pool-name="OntologyBootStrapDS" enabled="true" use-ccm="false">
        <connection-url>jdbc:postgresql://localhost:5432/i2b2</connection-url>
        <driver-class>org.postgresql.Driver</driver-class>
        <driver>postgresql-9.2-1002.jdbc4.jar</driver>
        <security>
                <user-name>i2b2hive</user-name>
                <password>demouser</password>
        </security>
        <validation>
                <validate-on-match>false</validate-on-match>
                <background-validation>false</background-validation>
        </validation>
        <statement>
                <share-prepared-statements>false</share-prepared-statements>
        </statement>
</datasource>
```

SQL Server Database Configuration

```
<datasource jta="false" jndi-name="java:/OntologyDemoDS"
                pool-name="OntologyDemoDS" enabled="true" use-ccm="false">
        <connection-url>jdbc:sqlserver://localhost:1433</connection-url>
        <driver-class>com.microsoft.sqlserver.jdbc.SQLServerDriver</driver-class>
        <driver>sqljdbc4.jar</driver>
        <security>
                <user-name>i2b2metadata</user-name>
                <password>demouser</password>
        </security>
        <validation>
                <valid-connection-checker class-name="org.jboss.jca.adapters.jdbc.extensions.mssql.
MSSQLValidConnectionChecker"></valid-connection-checker>
                <validate-on-match>false</validate-on-match>
        </validation>
        <statement>
                <share-prepared-statements>false</share-prepared-statements>
        </statement>
</datasource>
<datasource jta="false" jndi-name="java:/OntologyBootStrapDS"
        pool-name="OntologyBootStrapDS" enabled="true" use-ccm="false">
        <connection-url>jdbc:sqlserver://localhost:1433</connection-url>
        <driver-class>com.microsoft.sqlserver.jdbc.SQLServerDriver</driver-class>
        <driver>sqljdbc4.jar</driver>
        <security>
                <user-name>i2b2hive</user-name>
                <password>demouser</password>
        </security>
        <validation>
                <valid-connection-checker class-name="org.jboss.jca.adapters.jdbc.extensions.mssql.
MSSQLValidConnectionChecker"></valid-connection-checker>
                <validate-on-match>false</validate-on-match>
        </validation>
        <statement>
                <share-prepared-statements>false</share-prepared-statements>
        </statement>
</datasource>
```

3. If your environment has multiple projects pointing to different data sources then copy the **<datasource>** section for each project data source.
4. Update the **jndi-name** and **pool-name** to reflect the name of the second project .

Example: A second project called Demo2 would have the following entry:

Second Data Source Configuration

```
<datasource jta="false" jndi-name="java:/OntologyDemo2DS"
                pool-name="OntologyDemo2DS" enabled="true" use-ccm="false">
        <connection-url>jdbc:oracle:thin:@localhost:1521:xe</connection-url>
        <driver-class>oracle.jdbc.OracleDriver</driver-class>
        <driver>ojdbc6.jar</driver>
        <security>
                <user-name>i2b2metadata</user-name>
                <password>demouser</password>
        </security>
        <validation>
                <validate-on-match>false</validate-on-match>
                <background-validation>false</background-validation>
        </validation>
        <statement>
                <share-prepared-statements>false</share-prepared-statements>
        </statement>
</datasource>
```

Note

The above example is for an Oracle database. If your database is SQL Server or PostgreSQL then you will need to copy the <datasource> section for your type database connection. Do not use this one as it will not work.

5. Save the changes and close the file.