

Configure Postgresql Connection Pool on Ambience 202x

This guideline will guide you to configure Postgresql Connection Pool on Ambience 202x.

1. Deploy the Postgresql JDBC driver inside the \lib directory under the Ambience 202x installation folder. (Do refer to the following [link](#) to get a copy of the JDBC driver if required.)
2. Make a copy of the hikari-sample.properties located at \etc directory under the Ambience 202x server installation folder and paste it in the same directory. Rename it to i.e **postgresql.properties**.
3. Edit the postgresql.properties file as follows.

```
dataSourceClassName=org.postgresql.ds.PGSimpleDataSource
dataSource.user=<username>
dataSource.password=<encrypted-password>
dataSource.databaseName=<dbname>
dataSource.portNumber=<port>
dataSource.serverName=<servername>
dataSource.url=jdbc:postgresql://<hostname>:<port>/<dbname>
```

**If you wish to declare the schema name, revise the parameter value for *dataSource.url* as follows:
dataSource.url=jdbc:postgresql://<hostname>:<port>/<dbname>?current Schema=<schemaName>

4. Edit application.conf to point to the postgresql connection properties.

```
elixir.data.jdbc {
  connection-pool {
    implementation = "hikari"
    definition {
      #sample = "./etc/hikari-sample.properties"
      postgres = "./etc/postgresql.properties"
    }
  }
}
```

5. To encrypt the connection pool password, you can run the bin\ambience-cli.bat <- located at Ambience Server 202x installation folder. Below is the command line.

```
C:\Ambience 202x\Ambience-2022.1\bin>ambience-cli.bat encrypt password
password = {enc:elx-2.0}cSXG8HbC7BRnVJaYPtQ+nCwWwNiGuTeGguqhgrNj4vk=
```

Note : <password> = your password to login into your Postgresql database.

The command will return the following

```
password = {enc:elx-2.0}PofjLrwKW2yybzyy5wiZi/RnSdfSuND2jboEIU5I3wU=
```

- Replace the encrypted password inside the postgresql.properties
dataSource.password={enc:elx-2.0}PofjLrwKW2yybzyy5wiZi/RnSdfSuND2jboEIU5I3wU=

Reference on how to encrypt your plain-text passwords:

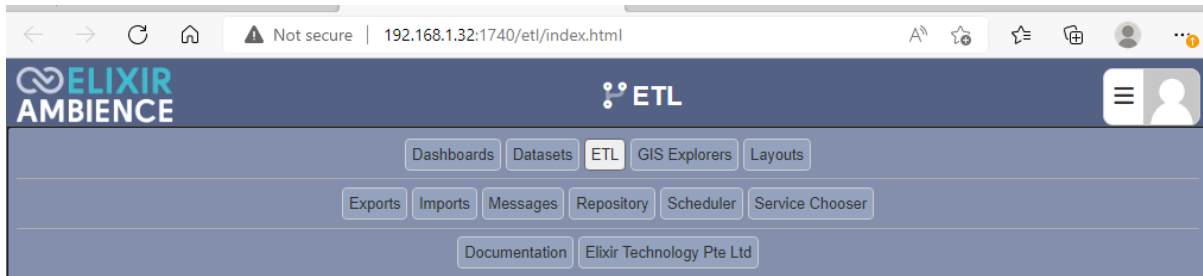
<https://support.elixirtech.com/t/encrypting-using-ambience-repertoire-202x/540>

- Start the run-server.bat and you should see below connection to Postgresql is successful

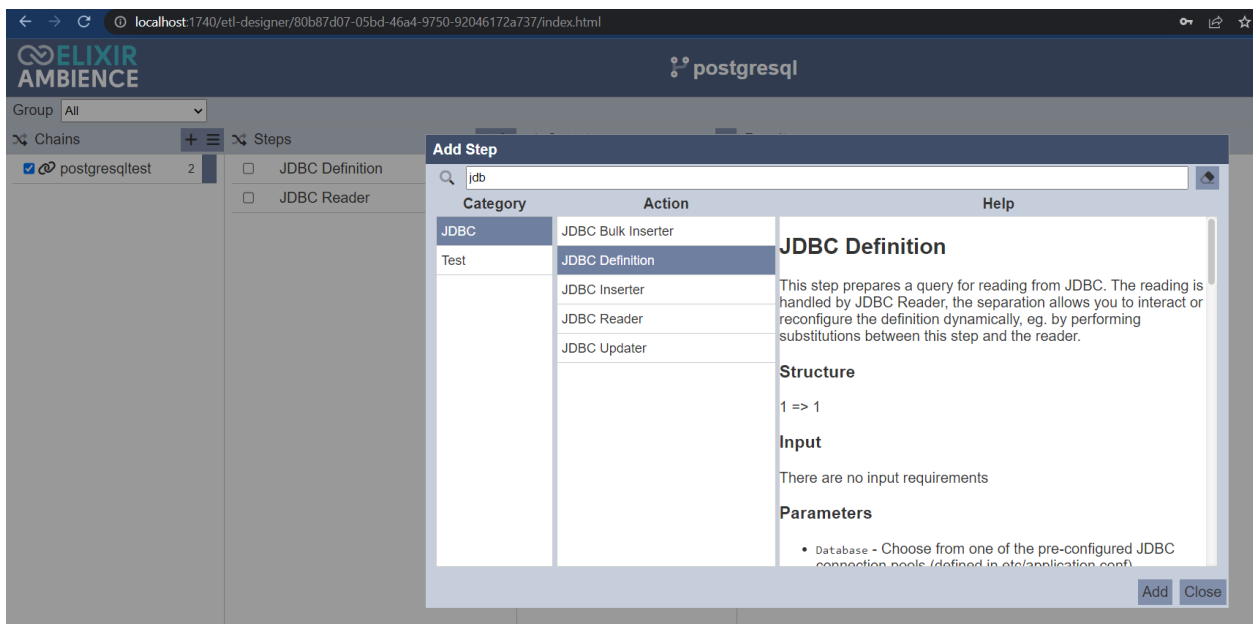
```
10:21:19.865 INFO  ambience.etl.jdbc.ConnectionPool - Building postgres
10:21:19.868 INFO  a.etl.jdbc.ConnectionPoolLoader - Using loader: ambience.etl.jdbc.DefaultConnectionPoolLoader
10:21:19.870 INFO  a.e.jdbc.DefaultConnectionPoolLoader - Loading C:\Ambience 202x\Ambience-2022.1\etc\postgresql.properties
10:21:19.914 INFO  com.zaxxer.hikari.HikariDataSource - HikariPool-1 - Starting...
10:21:20.243 INFO  com.zaxxer.hikari.pool.HikariPool - HikariPool-1 - Added connection org.postgresql.jdbc.PgConnection@71ac5723
10:21:20.247 INFO  com.zaxxer.hikari.HikariDataSource - HikariPool-1 - Start completed.
```

- Next, to test, from the Service Chooser, navigate to the ETL module.

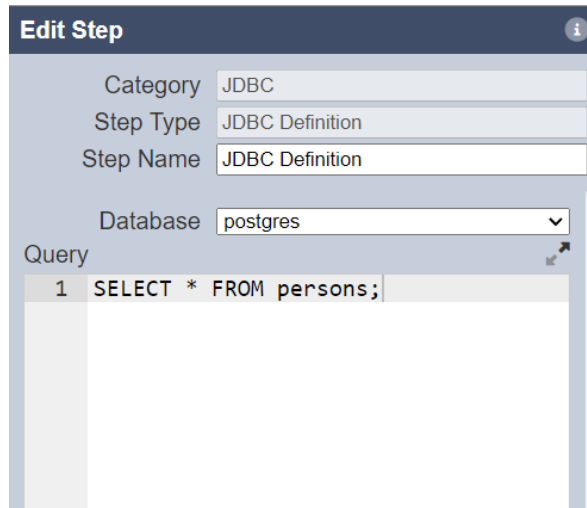
- Select ETL from the profile icon. Add a new ETL chainset.



- Select JDBC from Category, under Action, choose JDBC Definition and JDBC Reader.



9. Select the Database you had configured in Step 3. Edit the Query field with the appropriate SQL query.



Edit Step

Category: JDBC

Step Type: JDBC Definition

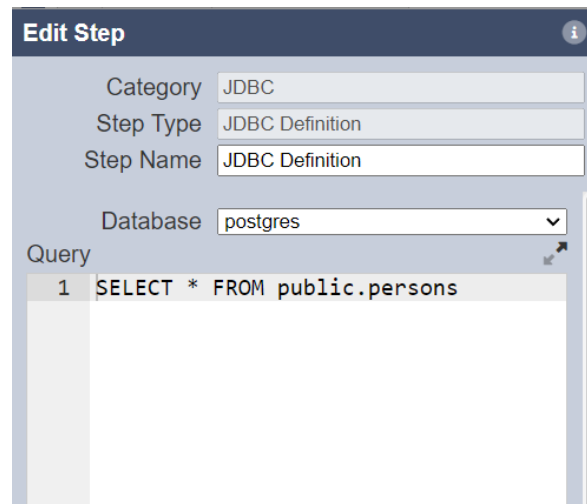
Step Name: JDBC Definition

Database: postgres

Query

```
1 SELECT * FROM persons;
```

**If you have declared a schema name in your dataSource.url, do append the schema name as well when querying a table. (i.e. <schemaName>.<tableName>)



Edit Step

Category: JDBC

Step Type: JDBC Definition

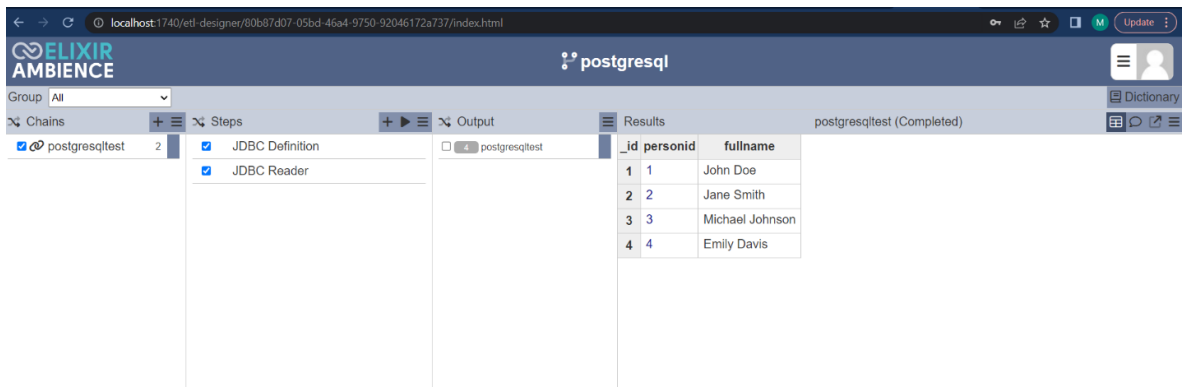
Step Name: JDBC Definition

Database: postgres

Query

```
1 SELECT * FROM public.persons
```

10. Once done, click save and run the ETL steps. If successful, you should be able to view the records being returned from your postgres database table.



ELIXIR AMBIENCE postgresql

Group: All

Chains: postgresqltest (2)

Steps: JDBC Definition, JDBC Reader

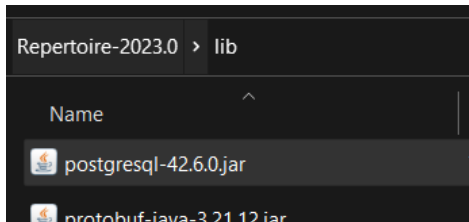
Output: postgresqltest

Results: postgresqltest (Completed)

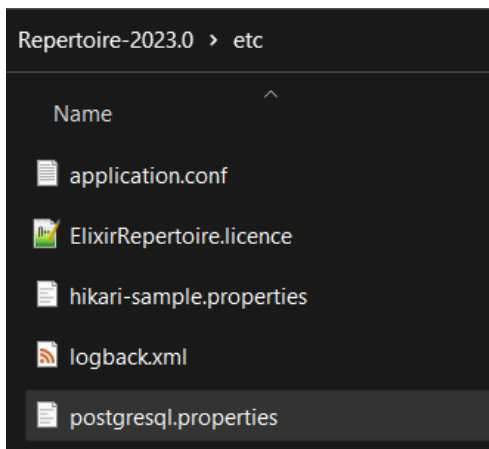
| _id | personid | fullname |
|-----|----------|-----------------|
| 1 | 1 | John Doe |
| 2 | 2 | Jane Smith |
| 3 | 3 | Michael Johnson |
| 4 | 4 | Emily Davis |

Configure Postgresql Connection Pool on Repertoire 202x

1. Deploy the Postgresql JDBC driver inside the \lib directory under the Ambience 202x installation folder. (Do refer to the following [link](#) to get a copy of the JDBC driver if required.)



2. Make a copy of the hikari-sample.properties located at the \etc directory under Repertoire 202x server installation folder and paste it on the same directory. Rename it to **postgresql.properties**.



3. Edit the postgresql.properties file as follows.

```
dataSourceClassName=org.postgresql.ds.PGSimpleDataSource
dataSource.user=<username>
dataSource.password=<encrypted-password>
dataSource.databaseName=<dbname>
dataSource.portNumber=<port>
dataSource.serverName=<servername>
dataSource.url=jdbc:postgresql://<hostname>:<port>/<dbname>
```

**If you wish to declare the schema name, revise the parameter value for *dataSource.url* as follows:
dataSource.url=jdbc:postgresql://<hostname>:<port>/<dbname>?currentSchema=<schemaName>

Do refer to the following entry on how to encrypt your plain-text passwords:
<https://support.elixirtech.com/t/encrypting-using-ambience-repertoire-202x/540>

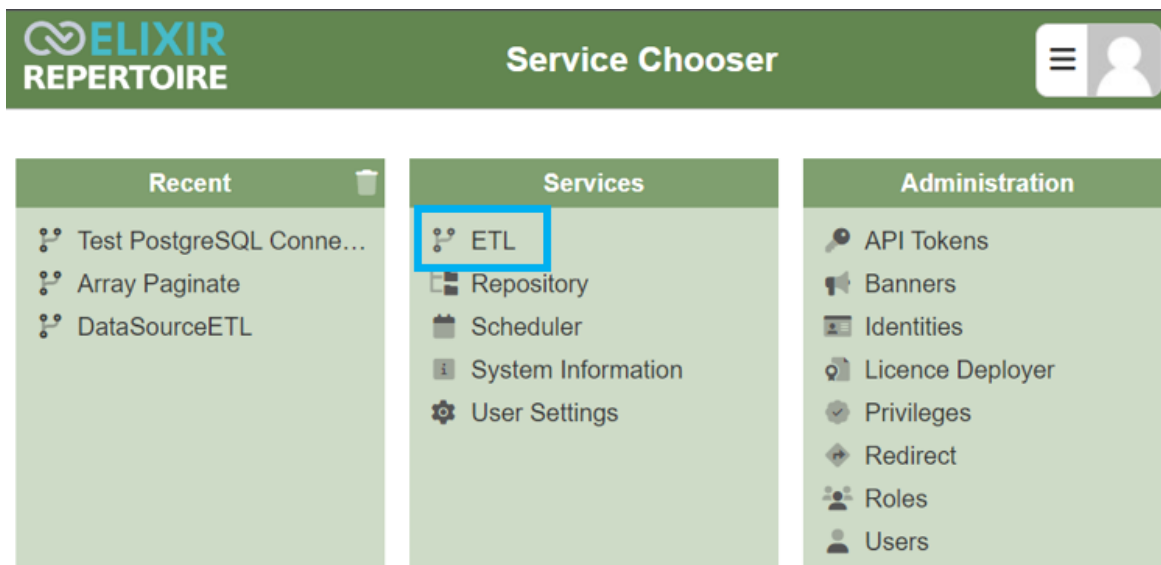
4. Edit application.conf to point to the postgresql connection properties.

```
elixir.data.jdbc {  
  connection-pool {  
    implementation = "hikari"  
    definition {  
      #sample = "./etc/hikari-sample.properties"  
      postgres = "./etc/postgresql.properties"  
    }  
  }  
}
```

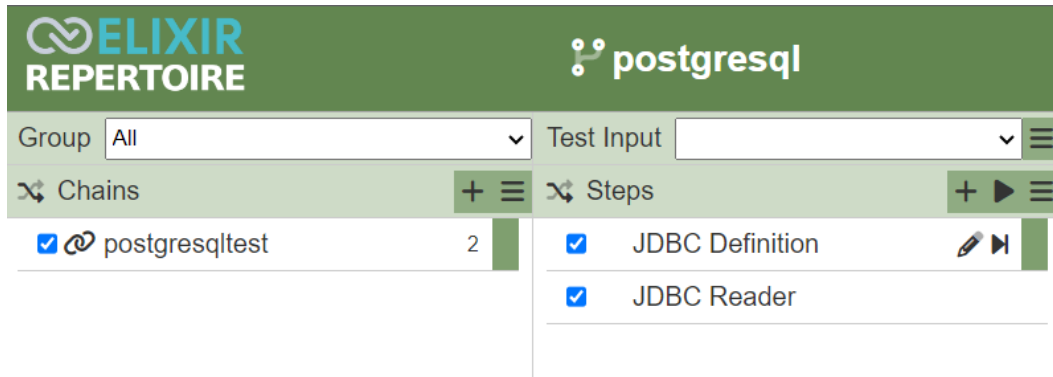
5. Start the run-server.bat and you should see below connection to Postgresql is successful

```
15:46:44.573 INFO ambience.etl.jdbc.ConnectionPool - Building postgres  
15:46:44.575 INFO a.etl.jdbc.ConnectionPoolLoader - Using loader: ambience.etl.jdbc.DefaultConnectionPoolLoader  
15:46:44.579 INFO a.e.jdbc.DefaultConnectionPoolLoader - Loading C:\hidayah\Products\Repertoire2020+\Repertoire-2023.0\.\etc\postgresql.properties  
15:46:44.598 INFO com.zaxxer.hikari.HikariDataSource - HikariPool-1 - Starting...  
15:46:44.849 INFO com.zaxxer.hikari.pool.HikariPool - HikariPool-1 - Added connection org.postgresql.jdbc.PgConnection@645ba24a  
15:46:44.853 INFO com.zaxxer.hikari.HikariDataSource - HikariPool-1 - Start completed.
```

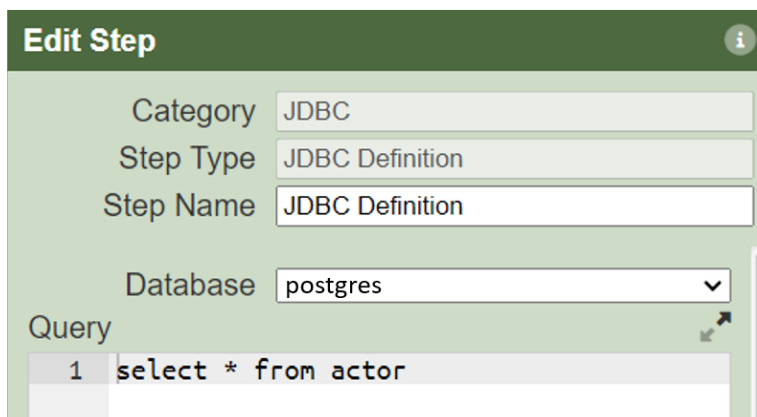
6. Next, to test, from the Service Chooser, navigate to the ETL module.



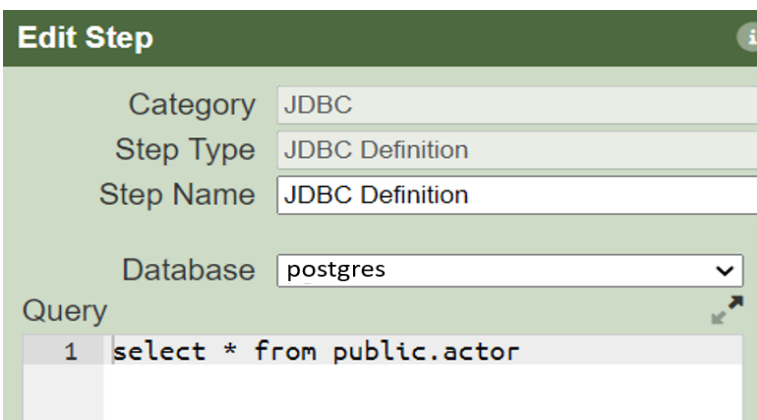
7. Create a chainset (i.e. postgresql) and proceed to create a chain. In the new chain (i.e. postgresqltest) add the following steps -> "JDBC Definition", "JDBC Reader"



8. In JDBC Definition, select the connection pool properties which you have just configured in the "Database" dropdown list and input in a sample sql query.



**If you have declared a schema name in your dataSource.url, do append the schema name as well when querying a table. (i.e. <schemaName>.<tableName>)



9. Once done, click save and run the ETL steps. If successful, you should be able to view the records being returned from your postgres database table.

The screenshot shows the ELIXIR REPertoire interface for a postgresql test. The top header includes the ELIXIR logo and the text 'postgresql'. Below the header, there are several dropdown menus: 'Group' set to 'All', 'Test Input' set to 'Test Input', and 'Output' set to '4:46:48 PM postgresqltest'. A 'Dictionary' icon is also visible. The main interface is divided into 'Chains' and 'Steps' sections. The 'Chains' section shows a single chain named 'postgresqltest' with a count of 2. The 'Steps' section shows two steps: 'JDBC Definition' and 'JDBC Reader'. The 'Results' section shows a table of data with the status 'Completed'. The table has the following columns: 'actor_id', 'first_name', 'last_name', and 'last_update'. The data rows are as follows:

| | actor_id | first_name | last_name | last_update |
|---|----------|------------|--------------|----------------------|
| 1 | 1 | Penelope | Guinness | 5/26/2013 2:47:57 PM |
| 2 | 2 | Nick | Wahlberg | 5/26/2013 2:47:57 PM |
| 3 | 3 | Ed | Chase | 5/26/2013 2:47:57 PM |
| 4 | 4 | Jennifer | Davis | 5/26/2013 2:47:57 PM |
| 5 | 5 | Johnny | Lollobrigida | 5/26/2013 2:47:57 PM |
| 6 | 6 | Bette | Nicholson | 5/26/2013 2:47:57 PM |
| 7 | 7 | Grace | Mostel | 5/26/2013 2:47:57 PM |