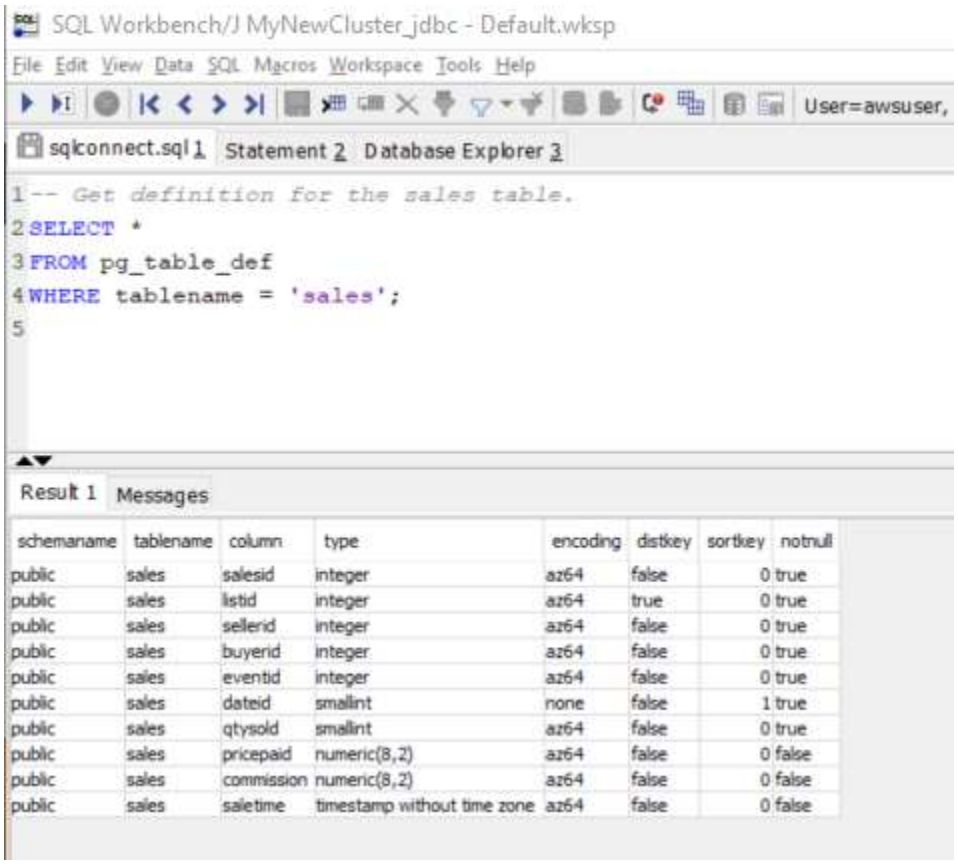
HOE 4 - Setup and Use SQL Workbench to Access Cluster remotely

In this HOE we will use the free SQL Workbench. Workbench/J is a free, DBMS-independent, cross-platform SQL query tool. It is written in Java and should run on any operating system that provides a Java Runtime Environment.

Its main focus is on running SQL scripts (either interactively or as a batch) and export/import features.



schemaname	tablename	column	type	encoding	distkey	sortkey	notnull
public	sales	salesid	integer	az64	false	0	true
public	sales	listid	integer	az64	true	0	true
public	sales	sellerid	integer	az64	false	0	true
public	sales	buyerid	integer	az64	false	0	true
public	sales	eventid	integer	az64	false	0	true
public	sales	dateid	smallint	none	false	1	true
public	sales	qtysold	smallint	az64	false	0	true
public	sales	pricepaid	numeric(8,2)	az64	false	0	false
public	sales	commission	numeric(8,2)	az64	false	0	false
public	sales	saletime	timestamp without time zone	az64	false	0	false

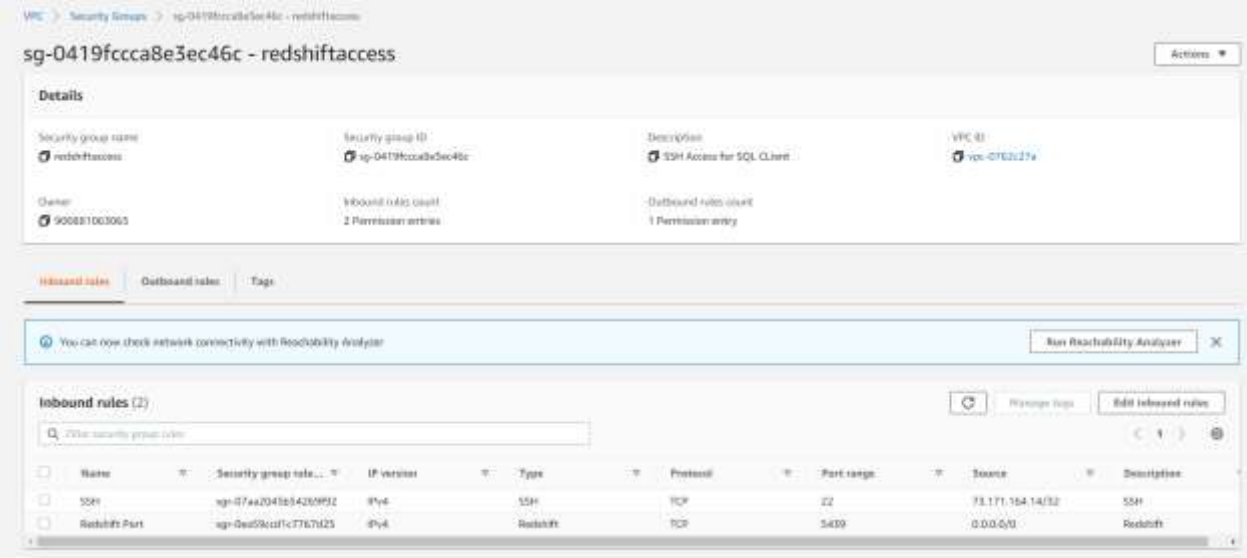
You can download the appropriate library version for your deployment here

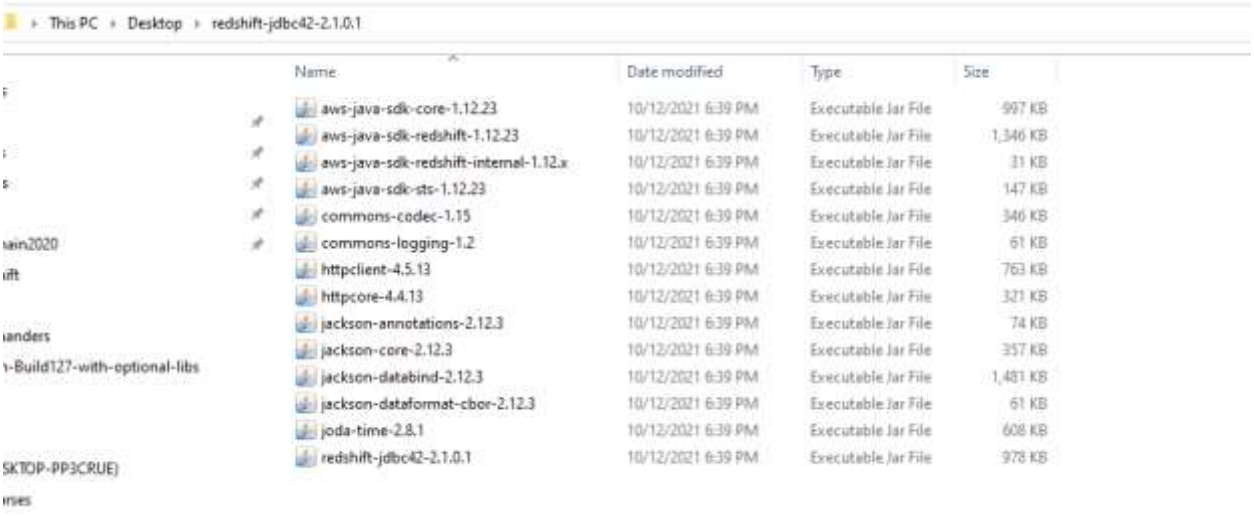
https://www.sql-workbench.eu/

There is also the requirement for drivers for Redshift.
https://docs.aws.amazon.com/redshift/latest/mgmt/configure-jdbc-connection.html#download-jdbc-driver

Note: Before you can access the cluster remotely(outside of AWS) make sure you have setup your security group in the VPC you're using to allow for Redshift port 5439

(Follow the Network and Security HOE)



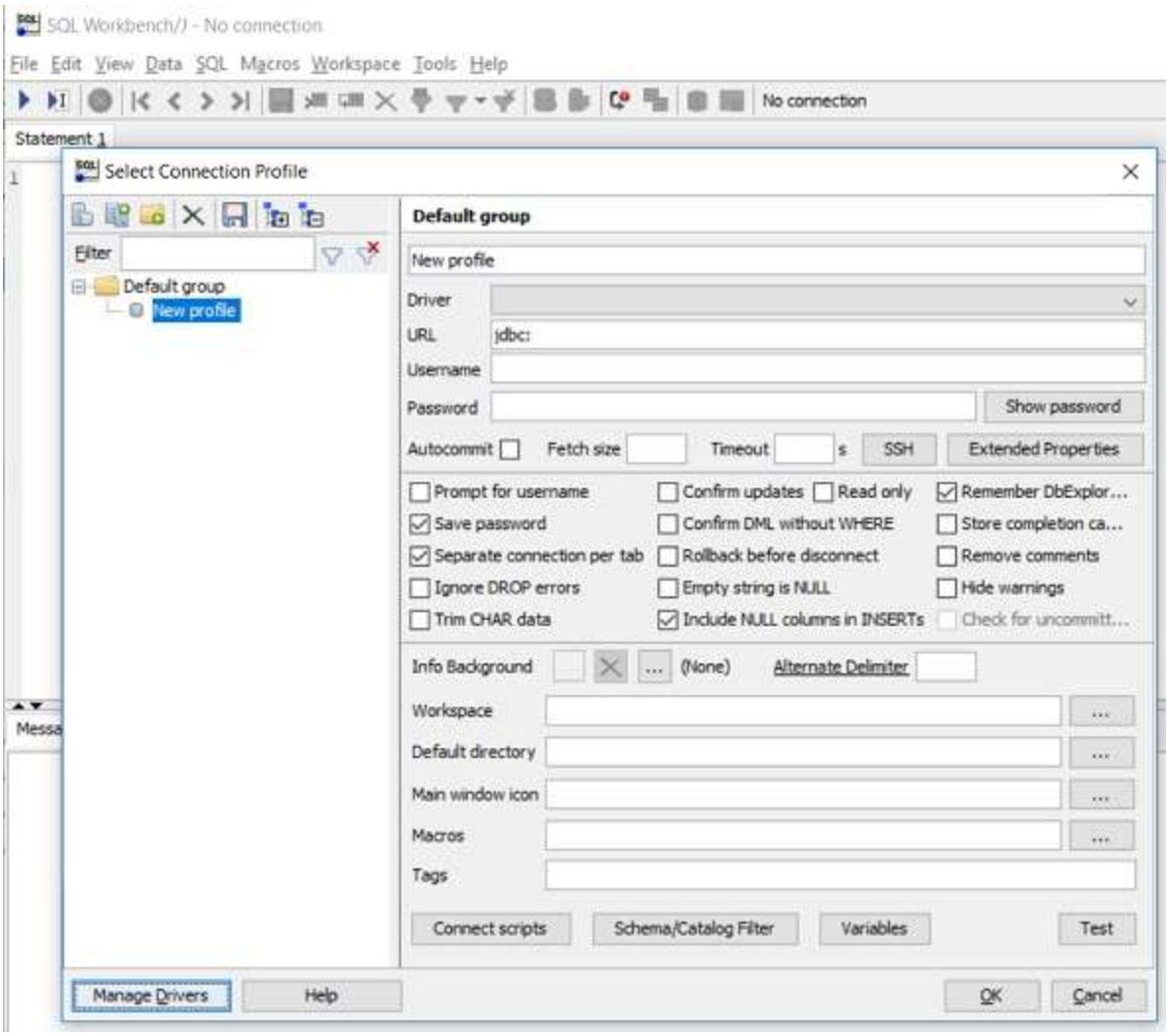


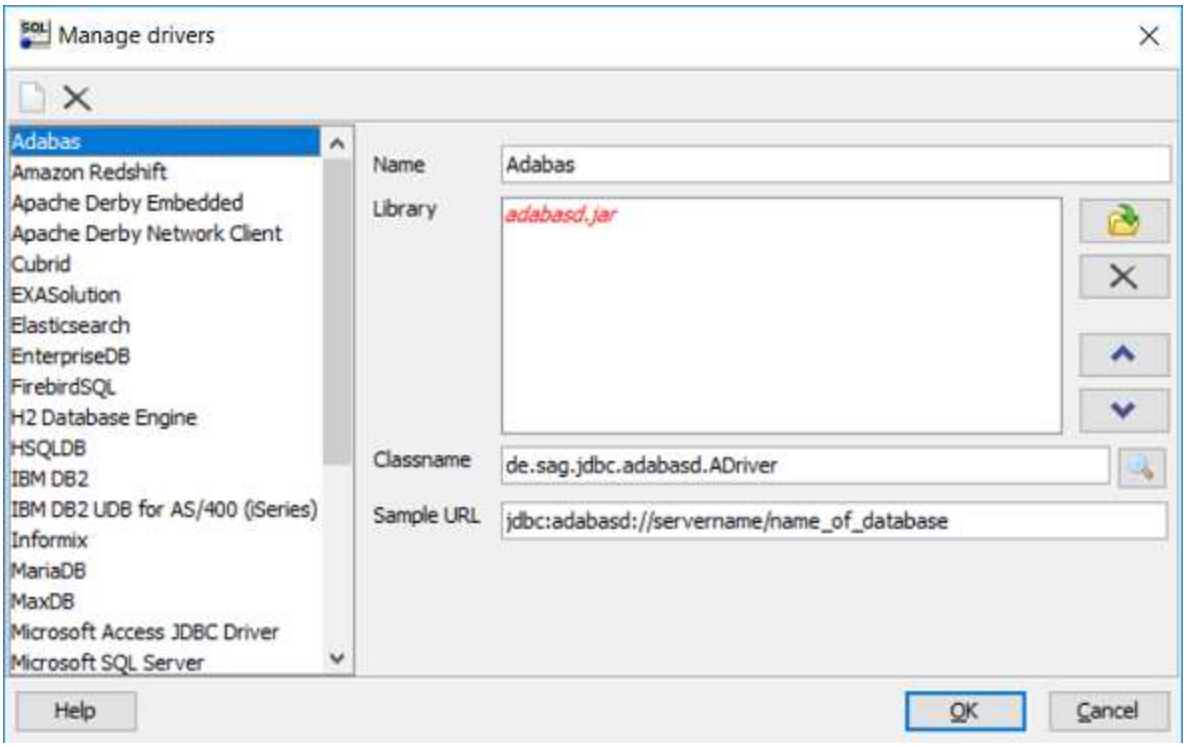
When your ready launch SQL Workbench using **SQLWorkbench64.exe**

“Select Connection Profile” dialog screen can ask you to create the profile for database connection that you want to work with.

For this simple configuration, we will first define the Amazon Redshift JDBC driver to the SQL Workbench tool.

Click Manage Drivers button at the bottom of the screen.


SQL Workbench/J - No connection
File Edit View Data SQL Macros Workspace Tools Help
No connection
Statement 1
Select Connection Profile
Filter
Default group
New profile
Default group
New profile
Driver
URL
jdbc:
Username
Password
Show password
Autocommit
Fetch size
Timeout
s
SSH
Extended Properties
Prompt for username
Confirm updates
Read only
Remember DbExplor...
Save password
Confirm DML without WHERE
Store completion ca...
Separate connection per tab
Rollback before disconnect
Remove comments
Ignore DROP errors
Empty string is NULL
Hide warnings
Trim CHAR data
Include NULL columns in INSERTs
Check for uncommitt...
Info Background
(None)
Alternate Delimiter
Workspace
Default directory
Main window icon
Macros
Tags
Connect scripts
Schema/Catalog Filter
Variables
Test
Manage Drivers
Help
OK
Cancel



Press “Create new entry” icon at the top of the screen of Manage Drivers

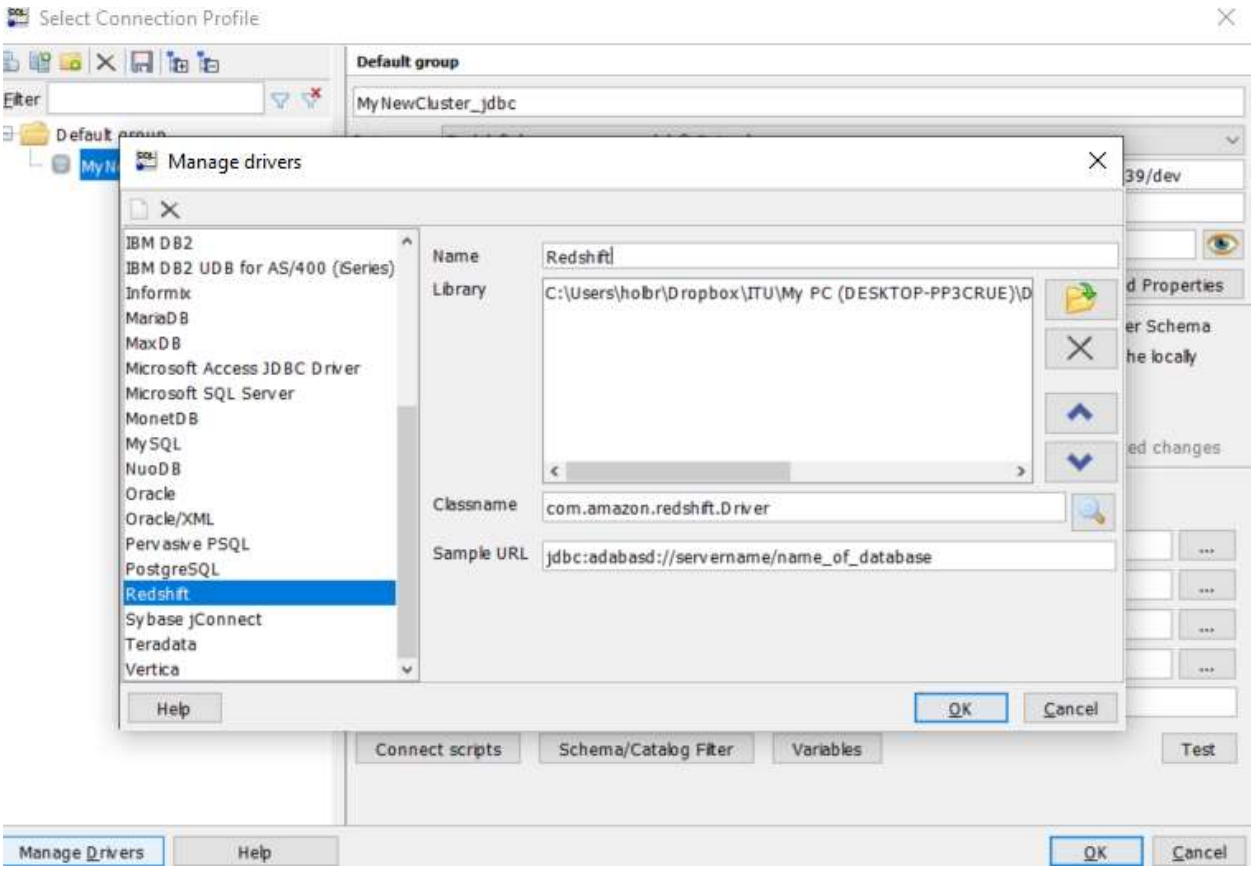
Fill the input text areas as seen below.

Using file selection icon, point to the .jar file you have download as JDBC Driver for Amazon Redshift in previous steps.

The class name field will be populated as com.amazon.redshift.jdbc.

A driver which is the default class name. You can also accept this class name for JDBC driver.

Then press the OK button.



Create a Profile to Connect Amazon Redshift Database

After the JDBC specified is defined, we can create a new profile to connect to a specific Amazon Redshift database.

On the main menu, follow menu options "File > Connect window"

On the "New Profile" screen we will define a new configuration to connect to your target Amazon Redshift cluster and database.

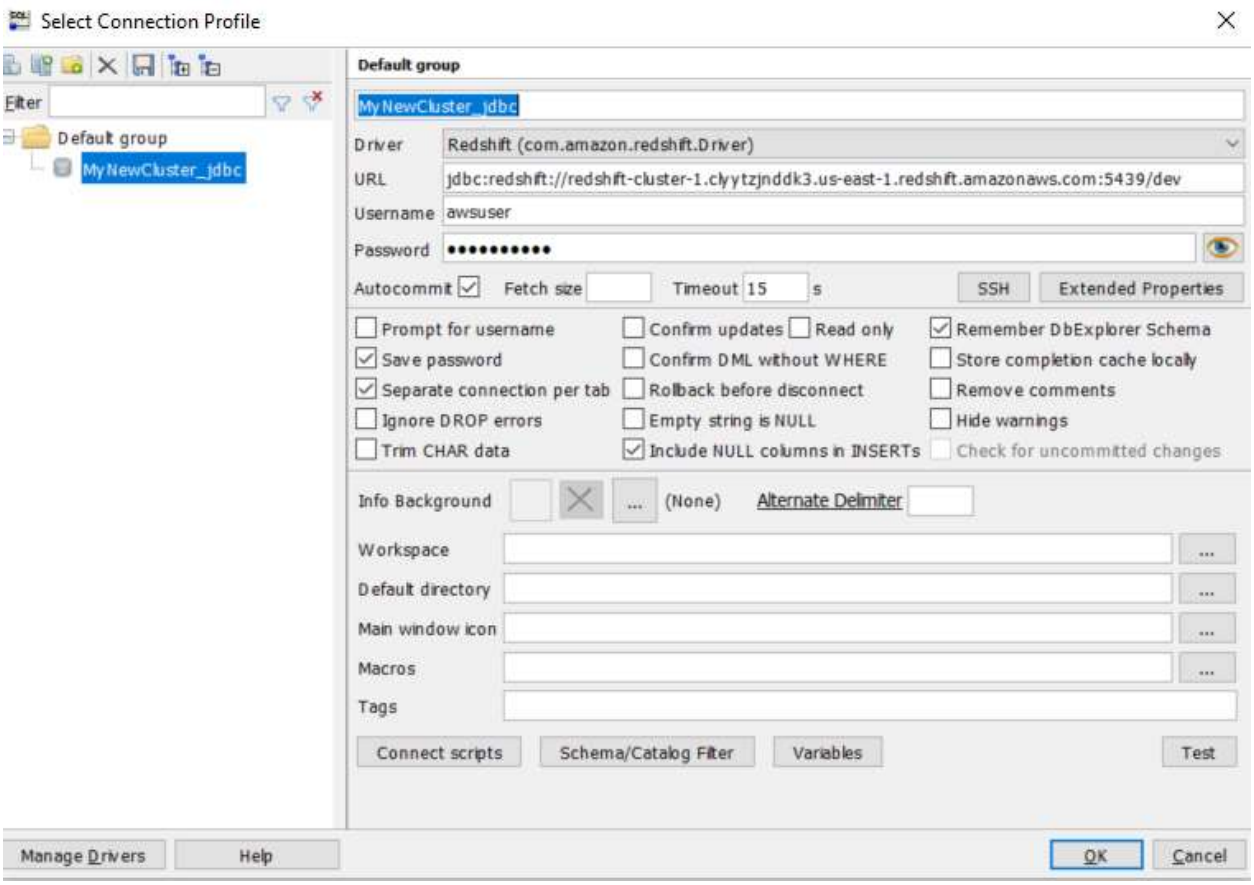
Give a descriptive name to your database connection profile.

In the Driver combo box, choose the driver entry you have created in the previous step (Amazon Redshift).

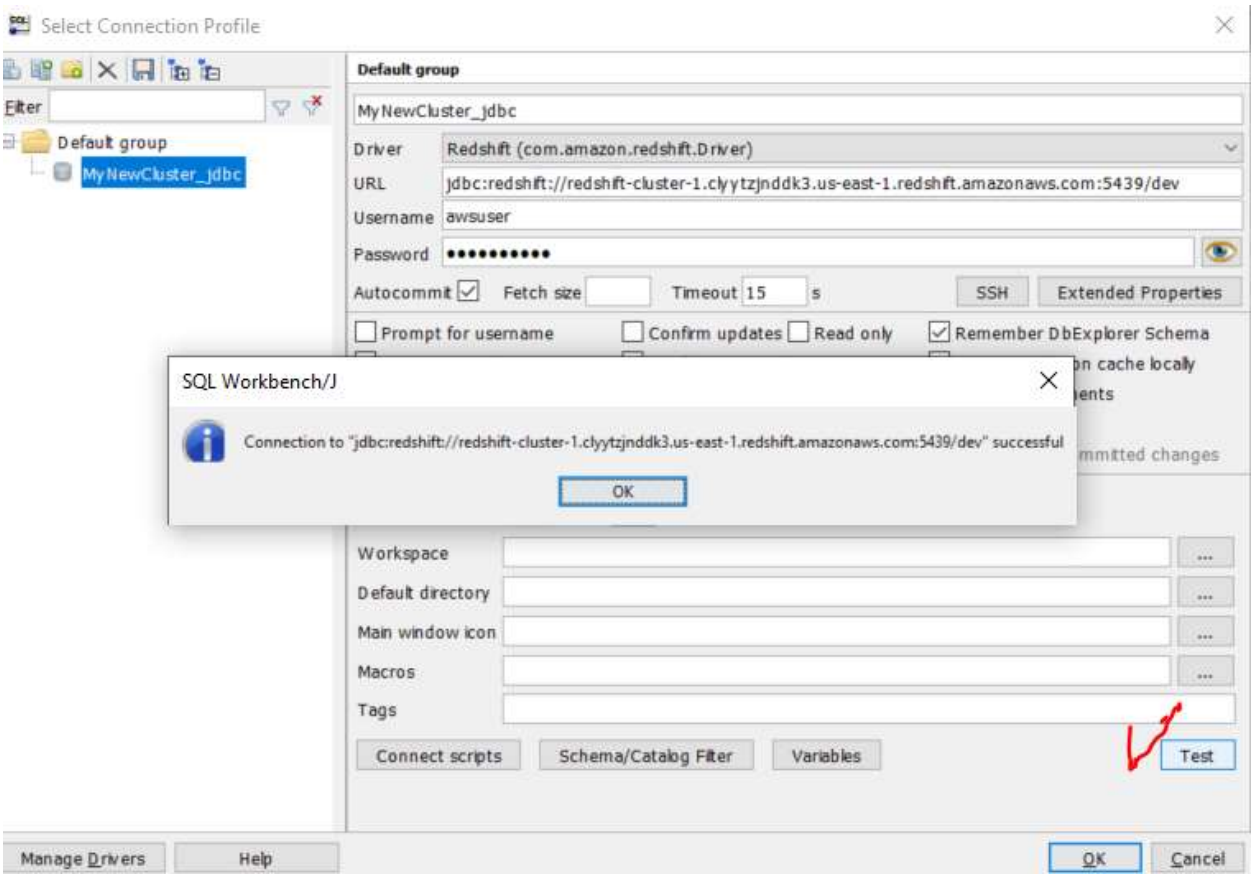
In URL entry, type the connection URL which is in a similar format as

jdbc:redshift://mydemocluster.clyytzjnddk3.us-east-1.redshift.amazonaws.com:5439/dev

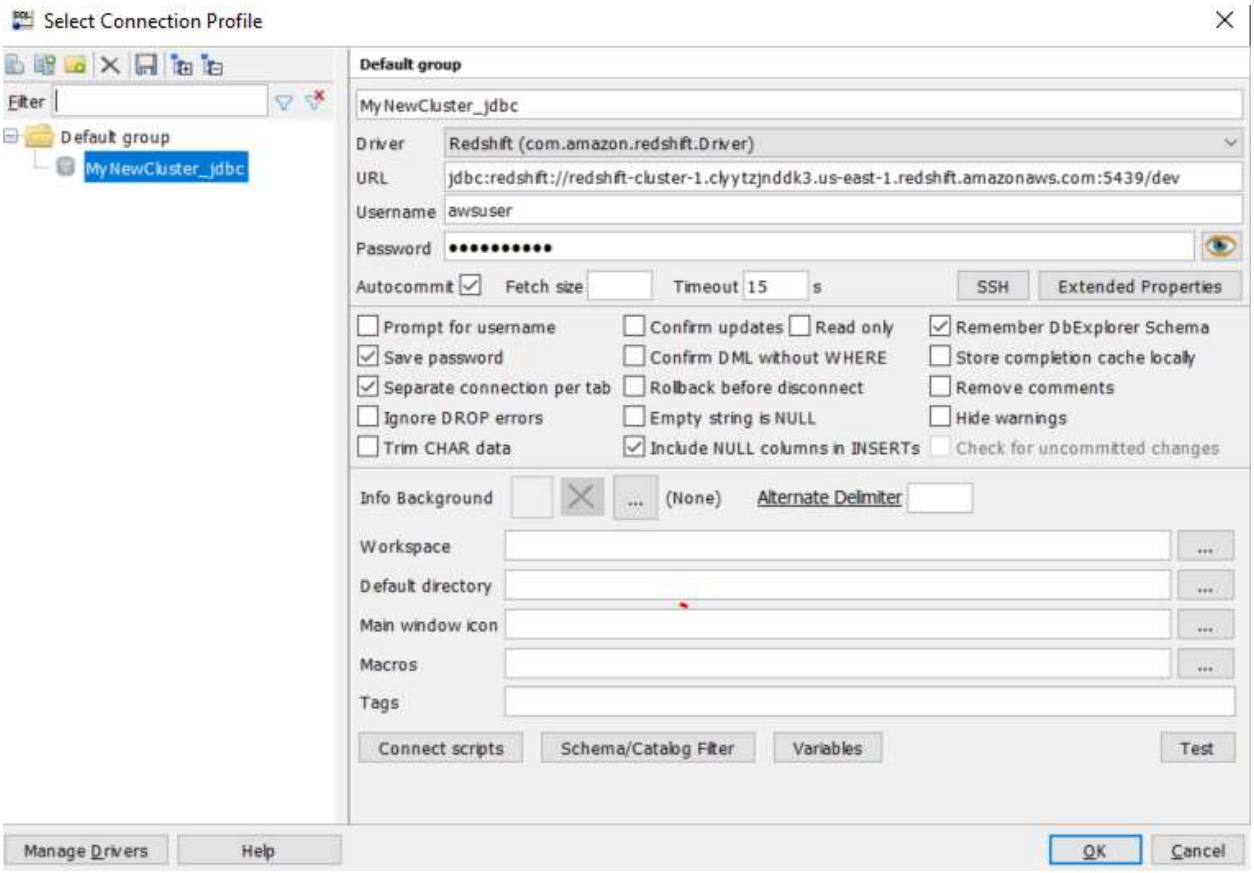
In username and password, textboxes enter the credentials of the database user you have to connect to Amazon Redshift cluster database.



Select Test button on-screen to see if your database connection works successfully.



Press OK to save your Amazon Redshift connection profile.



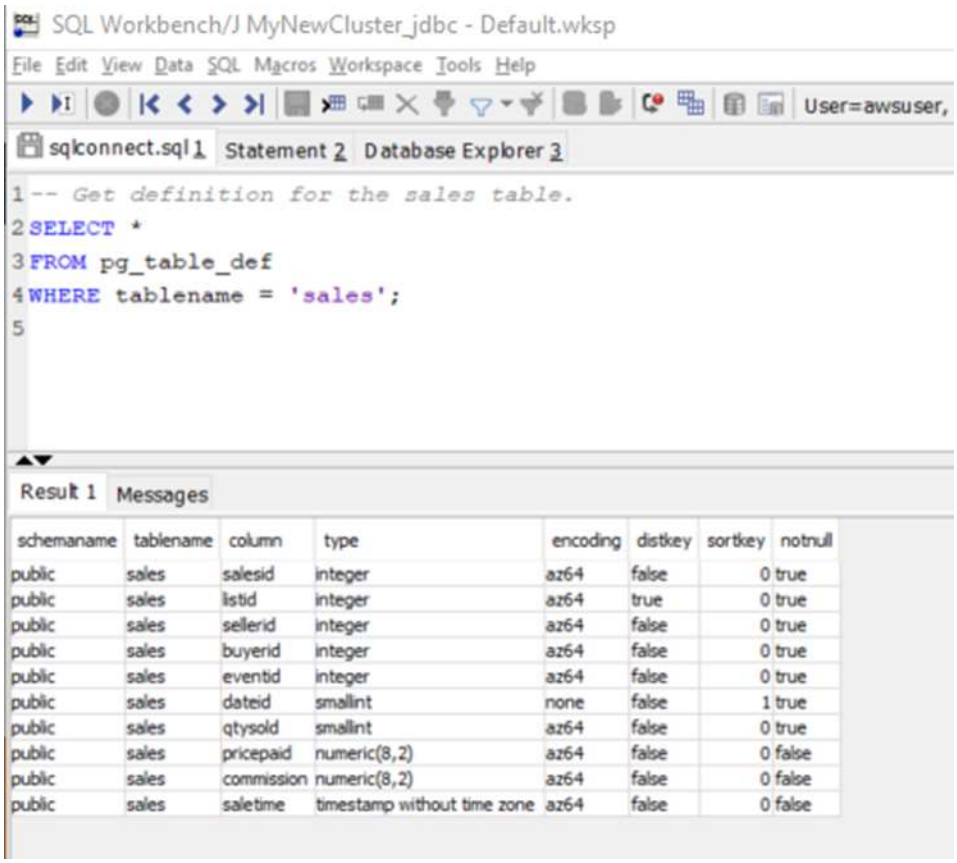
You can execute following SQL SELECT command too to see if the database connection is successfully working on SQL Workbench

```
-- Get definition for the sales table.

SELECT *

FROM pg_table_def

WHERE tablename = 'sales';
```



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End of Hands on Exercise