Updated: May 23, 2018

# Lab 2: Connecting to ADW

Now that you have created the ADW service, you will need to connect to it using your favorite tools.

The communication between desktop client applications and Autonomous Data Warehouse Cloud needs to be encrypted and secured. The authentication to ADW using database users and passwords should be stored in a secure/encrypted client-side software container called the **Oracle Wallet**. The Oracle wallet can simplify large-scale deployments that rely on password credentials for connecting to databases.

When this feature is configured, application code, batch jobs, and scripts no longer need embedded username and password. Risk is reduced because such passwords are no longer exposed in the clear, and password management policies are more easily enforced without changing application code whenever username or password changes.

This lab walks you through the steps to connect to ADW using your two most favorite database tools - **Oracle SQL Developer** and **Oracle SQL*Plus**.

## Objectives

Access the ADW Service Console

Download the Credentials Zip File

Connect to ADW using Oracle SQL Developer

Connect to ADW using Oracle SQL*Plus

# Required Artifacts

The lab requires an Oracle Autonomous Data Warehouse Cloud subscription.
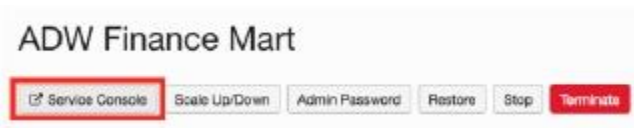
- Locate your **Cloud Account Name**, **Username**, and **Password**

Access to the lab .

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# Lab Steps

## Step 1: Sign in to ADW Service Console

From the **Autonomous Data Warehouse Details** screen, click **Service Console**.



**Sign in** to the **Service Console** with the following information :
- o  **Username:** admin
- o  **Password:** The administrator password specified during provisioning in **Lab 1**

You will be presented with the ADW **Sevice Console** dashboard.



# Step 2: Download the Credentials Zip File

ADW only accepts secure connections to the database so you would first need to download a wallet file containing your client credentials before you can connect any client tools. The wallet is downloaded from the ADW service console.

From the **Service Console**, click the **Administration** tab.
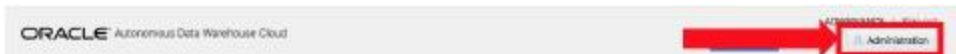
Click **Download Client Credentials** to download the wallet.



Specify a **Password** of your choice for the wallet, you will need this password when connecting to the database later.

This password is separate from the admin password. This password is referred to as the keystore password when connecting JDBC thin applications.

Click **Download** to download the wallet file to your client machine.



The Wallet will be downloaded to the **Downloads** folder in the lab VM.
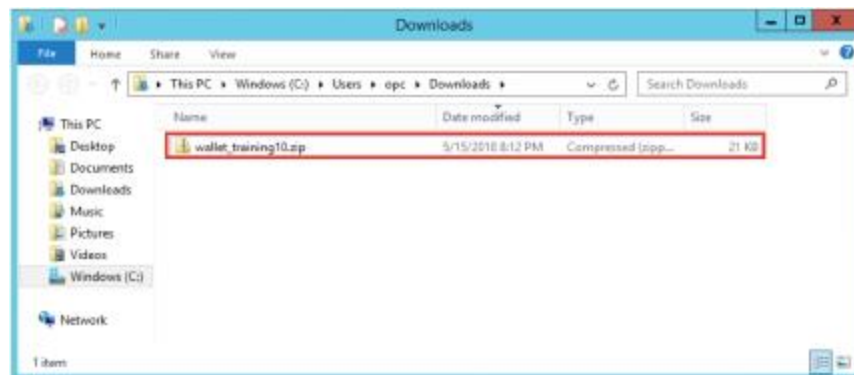
# Step 3: Connect to ADW using Oracle SQL Developer

Start Oracle SQL Developer and create a connection to your database using the default administrator account, ADMIN, by following these steps.

Start SQL Developer by clikcing the **SQL Developer** icon from the Desktop.
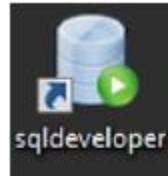


Click the **Create Connection** icon in the Connections toolbox on the top left of the SQL Developer homepage.
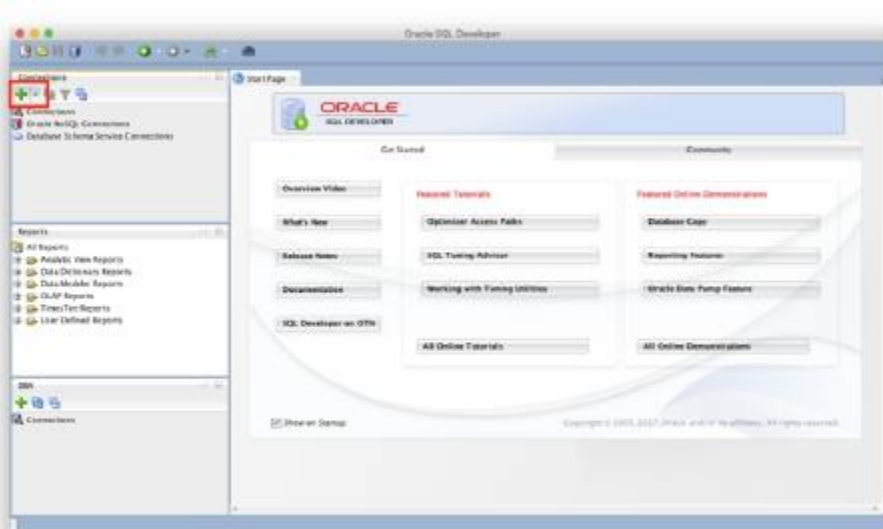


Fill in the connection details as below:

· **Connection Name:** admin_low

· **Username:** admin

· **Password:** The password you specified during provisioning of ADW

· **Connection Type:** Cloud PDB

· **Configuration File:** Enter the full path for the wallet file you downloaded before, or click the **Browse button** to point to the location of the file (**Hint:** It will be in the Downloads folder).

Configuration File    Users\opc\Downloads\wallet_training10.zip ▾    Browse...

- **Keystore Password:** The password you specified when downloading the wallet from the ADW **Service Console**.

- **Service:** There are 3 pre-configured database services for each database. Pick **<databasename>_low** for this lab. For example, if you created a database named **adwfinance** select **adwfinance_low** as the service.
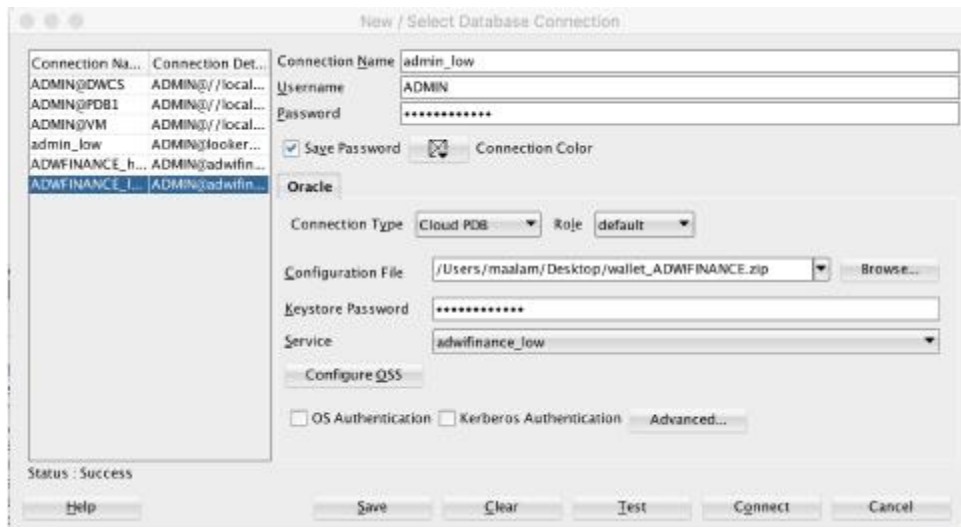


Test your connection by clicking the **Test** button, if it succeeds save your connection information by clicking **Save**, then connect to your database by clicking the **Connect** button. An entry for the new connection appears under **Connections**.



Create another connection named as **admin_high** using the same information as above, this time pick **<databasename>_high** as the service name, for example, **adwfinance_high**.
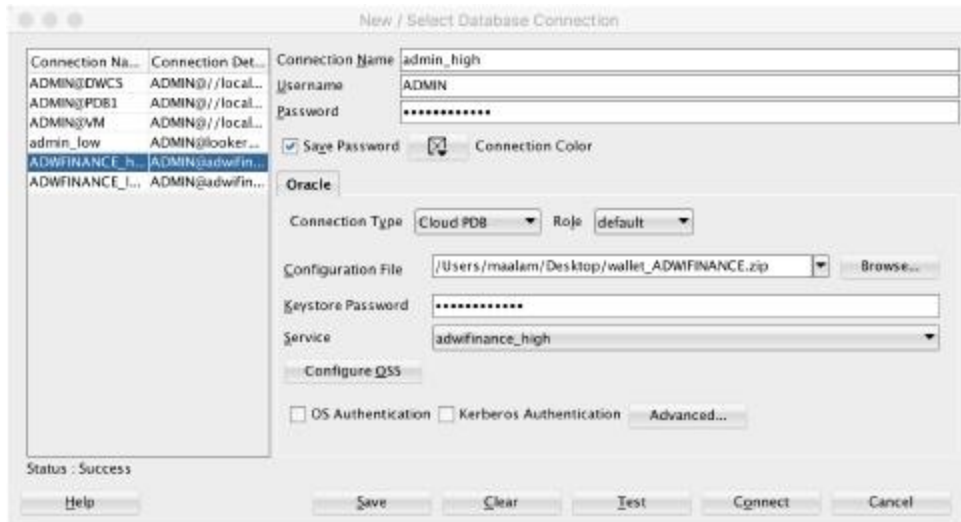
You will use these connections in the next lab.

# Step 4: Connect to ADW using Oracle SQL*Plus

If you like to connect your favorite Oracle Client tools like SQL*Plus or Data Pump to ADW, the Oracle client network configuration settings needs to be updated to use the Wallet.

Once the network settings are updated you can use the Oracle client utilities like **sqlplus**, **sqlldr** and **impdp** to connect to ADW.
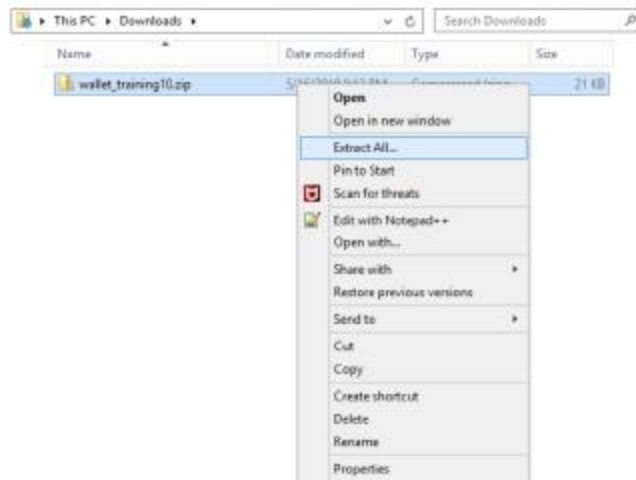
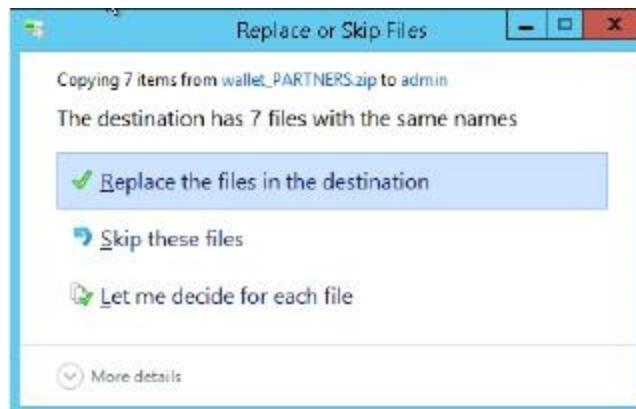Locate the Wallet zip file in the **Downloads** folder.
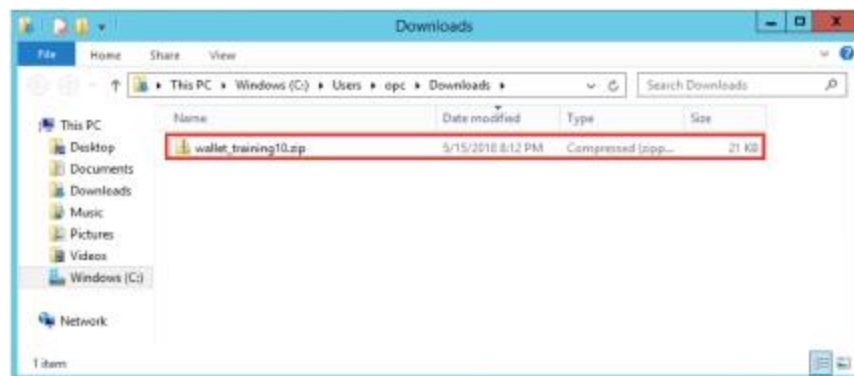


The Wallet files need to be extracted into **%ORACLE_HOME%\network\admin** directory which in the lab VM is **C:\12.1_client\network\admin**.

**Note:** Ensure that **sqlnet.ora** and **tnsnames.ora** files preexist in the above folder.

Right-click on the zip file and click **Extract All**.

Choose **Replace the files in the destination** to overwrite the previous files.



**Note:** Since we are connecting to only one ADW target in the lab, the credential information is extracted to the default location **%ORACLE_HOME%\network\admin**. But if you needed to connect to multiple ADW instances, you can extract the Wallet contents of each to saparate folders and configure the environment valiable **%TNS_ADMIN%** to point to right folder. You will also need to modify the sqlnet.ora file to point to the wallet folder.

Test the network settings. Start a **CMD shell** from the lab VM Desktop.



Enter the following command to start a **sqlplus** session:

```
sqlplus admin/Password@ConnectString
```

Where **Password** is the password you entered when creating the service and **ConnectString** is the **TNS**

**Names** alias you used when connecting through **SQL Developer**.

> **Note:** If your password has special characters such as "**@**", you need to encapsulate it in backslash & double quotes, i.e. **\"Password\"**.

```
sqlplus admin/\"Password\"@ConnectString
```



On a successful connection you will get a **SQL>** Prompt.

You've completed this lab. Please proceed to the next lab.