How to Connect to WPI Oracle through Java

There are two easy ways to connect your Java program to WPI's Oracle server. You can do this either

1. **Running you code through the CCC servers**
2. **Running your code in a local IDE (Eclipse shown, you can search instructions for IntelliJ)**

1.0 Running your code through the CCC server

- **Copy your code to the CCC server**
  - Either using FileZIlla, scp, or pscp (See earlier instructions for this)
- **Log in to CCC machine**
  - Either through terminal (on macOS and linux) or though putty (on Windows)
    - ssh username@ccc.wpi.edu
- **Set environment variables**
  - source /cs/bin/oracle-setup
- **Set CLASSPATH to add JDBC jar**
  - export CLASSPATH=./:/usr/lib/oracle/18.5/client64/lib/ojdbc8.jar
- **Write your java code (say file name is OracleTest.java) and then compile it**
  - javac OracleTest.java

  Assuming file OracleTest.java is in your working directory
- **Run it**
  - java OracleTest

Possible Errors

- "Could not find or load main class …"
  - Make sure you ran the "javac" command with the correct path to your java file
  - Make sure the java Class name in your code matches the file name being compiled
- "Oracle JDBC Driver Not Found"
  - Make sure you set the CLASSPATH command properly to add the JDBC jar
  - OR - You can download your own JDBC jar file here
    - Copy this file to the server and add the custom Jar file to the CLASSPATH
      > export CLASSPATH=./:<path to your custom jar>

The Unzipped JDBC Driver and Companion JARs

The JARs included in the **ojdbc10-full.tar.gz** and **ojdbc8-full.tar.gz** are also available as individual downloads in this section.

Download	Release Notes
ojdbc10.jar	**Certified with JDK10;** Oracle JDBC driver except classes for NLS support in Oracle Object and Collection types. (4,243,140 bytes - SHA1: bba59347e68c9416d14fcc9a9209e869f842e48d)
ojdbc8.jar	**Certified with JDK8;** Oracle JDBC driver except classes for NLS support in Oracle Object and Collection types. (4,210,517 bytes - SHA1: 967c0b1a2d5b1435324de34a9b8018d294f8f47b)
ucp.jar	the Universal Connection Pool (1,680,074 bytes - SHA1: 796b661b0bb1818b7c04171837356acddcea504c)
ojdbc.policy	Sample security policy file for Oracle Database JDBC driver (11,596 bytes)

2.0 Running your code in a local IDE (Eclipse)

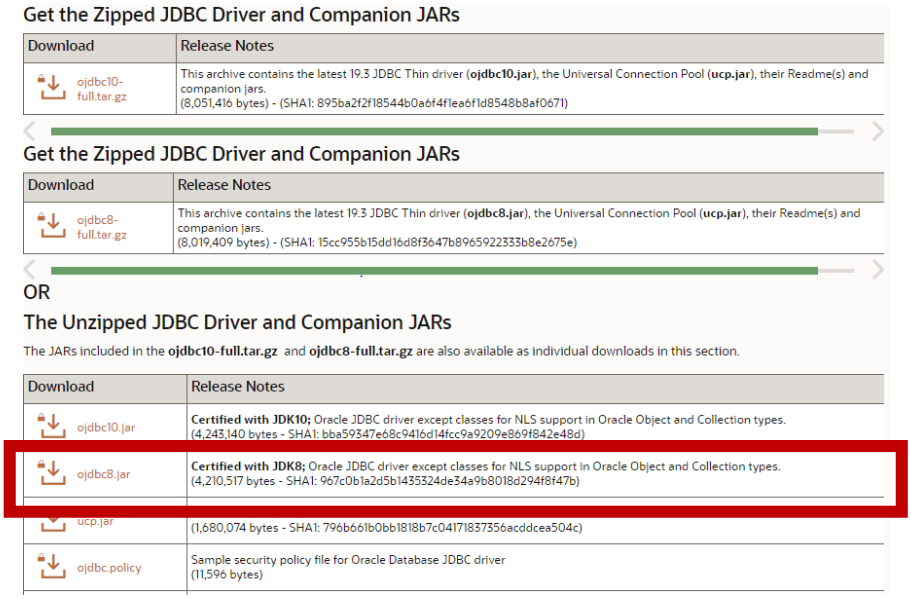
Assumes you are relatively familiar with Eclipse

You must be on the WPI network to connect to Oracle server through JDBC

This can be from:

- **Anywhere on-campus**
- **Through the WPI VPN if you're off campus**
  - **You can follow the instructions provided by ITS here for your specific system**

- **Download a JDBC driver from Oracle here and save it to a convenient place to find later. I downloaded ojdbc8.jar**



Get the Zipped JDBC Driver and Companion JARs

Download	Release Notes
ojdbc10-full.tar.gz	This archive contains the latest 19.3 JDBC Thin driver (**ojdbc10.jar**), the Universal Connection Pool (**ucp.jar**), their Readme(s) and companion jars. (8,051,416 bytes) - (SHA1: 895ba2f2f18544b0a6f4f1ea6f1d8548b8af0671)

Get the Zipped JDBC Driver and Companion JARs

Download	Release Notes
ojdbc8-full.tar.gz	This archive contains the latest 19.3 JDBC Thin driver (**ojdbc8.jar**), the Universal Connection Pool (**ucp.jar**), their Readme(s) and companion jars. (8,019,409 bytes) - (SHA1: 15cc955b15dd16d8f3647b8965922333b8e2675e)

OR

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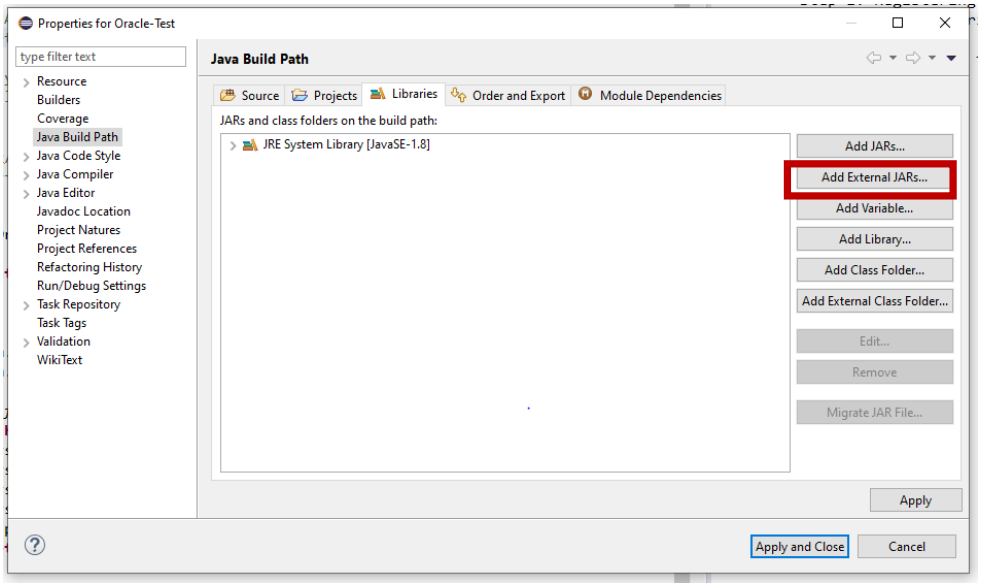
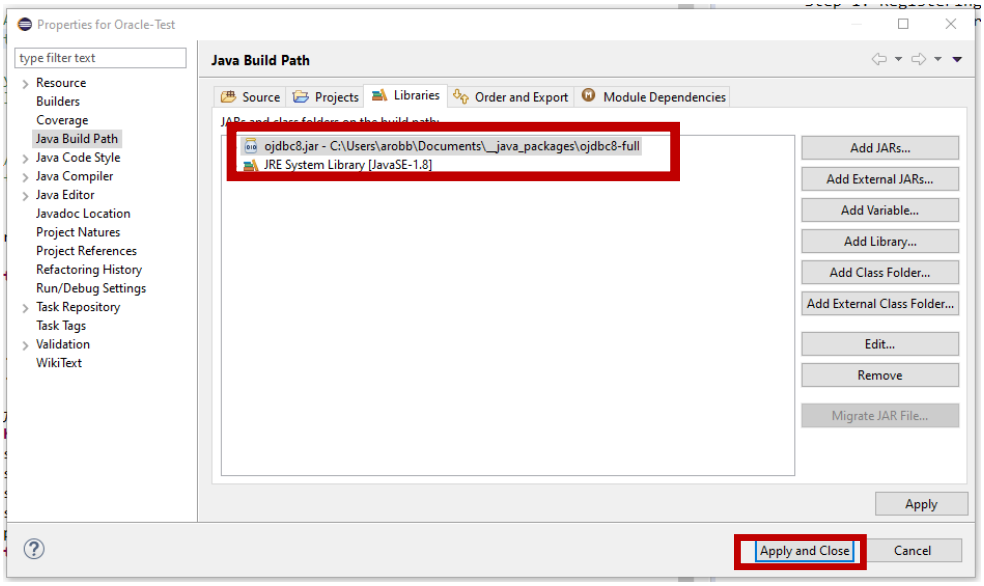
- **Add a reference to the jar file from your Java project in Eclipse**
  - **Click "Project" (on the top) -> "Properties"**
  - **Click "Java Build Path" (on the left)**
  - **On the "Libraries" tab click "Add External JARs.." (on the right)**
  - **Navigate to where you saved the downloaded jar file**



- **You should now see the JDBC jar file in Eclipse**
- **Click "Apply and Close"**



- **You should now be able to run your code in Eclipse**

Verify your output (for provided OracleTest.java)