# CS 235 - Week 13 Lab Exercise - 2021-11-19

### Deadline

Due by the end of lab on 2021-11-19.

### How to submit

Submit your .java files, and the .txt files containing the redirected output from running them, for this lab on <u>https://canvas.humboldt.edu</u>

## Purpose

Setup what is needed for JDBC on nrs-projects, and verify that you can successfully use JDBC on nrs-projects to connect to the HSU Oracle student database in advance of Homework 9.

## **Important notes**

- IF you are attending the lab via Zoom, you will be put into breakout rooms in pairs as usual.
  - **BUT**, **each** person in the breakout room should do all the steps below (helping each other so all complete them), so that **everyone** sets up what they need to reach the HSU Oracle student database and checks that they can successfully do so!

(And if you are in BSS 317 in person, you will each work on a separate computer as usual, although discussion amongst those attending will be encouraged, as always!)

- Along with this lab exercise (and now also on the public course site under "References", and on the Canvas course home page) there is a handout, "Useful details ssh and sftp", explaining how to use ssh (to connect to nrs-projects) and sftp (to transfer files to and from nrs-projects).
- And there is also a handout of "Useful UNIX/Linux commands for CS 235" along with that.

# Set CLASSPATH to refer to ojdbc6.jar

- Use PuTTY or ssh to log into to nrs-projects.
- Use nano (or your favorite text editor) to open up your .bashrc file:

nano .bashrc

- Use the down-arrow to navigate down to the last line of your .bashrc file.
- PASTE this line at the END of your .bashrc file:

(it is also on the public course web site, on the "In-class examples" page under "Week 13 Lab", for your pasting convenience)

export CLASSPATH=\$CLASSPATH:/opt/oracle/product/11.2.0/client\_1/oui/jlib/ojdbc6.jar:.

- SAVE your .bashrc file -- in nano, you do this by typing the control key and the letter o at the same time, and then typing the enter key to confirm the file's name.
- EXIT your text editor -- in nano, you do this by typing the control key and the letter x at the same time.

#### CS 235 - Week 13 Lab Exercise

• Log out, and use PuTTY or ssh to again ssh to nrs-projects. (Now your .bashrc should have been run with the above addition.)

### Set up Week 13 Lab Exercise directory

• Make a new directory for this week's lab exercise on nrs-projects, protect it, and go to that directory.

```
mkdir 2351ab13
chmod 700 2351ab13
cd 2351ab13
```

• Create a file pwd-file.txt that contains 1 line, the password for the Oracle java account. Save this file and also protect it:

chmod 600 pwd-file.txt

# Test 1: GetDate.java

- In your directory 2351ab13, make a copy of the latest version of GetDate.java from the public course web site, on the "In-class examples" page under "Week 13 Lab".
- Modify this, adding a statement printing your name to the screen.
- Compile and test your resulting GetDate.java, and make sure it successfully runs as expected.
- When it works, create an example output file to submit to show that it worked by running:

```
java GetDate > GetDate-demo.txt
```

## Test 2: EmpSal.java

- In your directory 2351ab13, make a copy of the latest version of EmpSal.java from the public course web site, on the "In-class examples" page under "Week 13 Lab".
- Modify this, adding a statement printing your name to the screen.
- Compile and test your resulting EmpSal.java, and make sure it successfully runs as expected.
- When it works, create an example output file to submit to show that it worked by running:

```
java EmpSal > EmpSal-demo.txt
```

# **Final Steps**

- When you are done, use WinSCP or sftp to transfer your files GetData.java, GetDate-demo.txt, EmpSal.java, and EmpSal-demo.txt from nrs-projects to your computer.
  - Please help each other to do so, or ask me to help walk you through this.
- Then each of you should submit your versions of these four files to Canvas.