

COSC 344 Lab for Week 9

Overview

The purpose of this lab is to have further practice on programming using Java & SQL, C & SQL, and PHP & SQL. Three versions are provided based on different host languages, and you should complete at least one of them.

Assessment: 10 marks

You need to first choose your preferred host language, and then do the lab work according to the corresponding version. The developed Java, C or PHP (only for Part 1) programs will be assessed during the labs in Week 11.

Java Language

Use *TestLogin.java* as a basis. Change its name to make the program for this lab.

Your program should retrieve the first and last names and salary of all employees. You should create a Java class to contain data from each row returned by Oracle. Create an appropriate constructor, access methods, a comparison method, and a print method.

In your main program, use an ArrayList to hold the rows (now a Java class). Sort the rows in the ArrayList in order of increasing salary.

Finally, print the sorted ArrayList.

C Language

Use *pt1.pc* as a basis. Change its name to make the program for this lab.

For this lab, you must use a cursor with embedded SQL. Your program should retrieve the first and last names and salary of all employees into an array or list of an appropriate *struct*. Sort the data according to salary. Print the data.

PHP Language

Part 1: Query and Sorting

Using query.php as a basis, your program should retrieve the first and last names and salary of all employees and show it on a web page.
Sort the data according to salary in PHP scripts.
Print the data.

Part 2: AJAX Query

Edit ajax_query.html and ajax_query.php to find an employee in the employee table.

Part 3: Configuration Practice

Change the name of your includes file, and the name of the variable which contains the connection details (your Oracle username and password)
Create a sub-directory in your projects directory (e.g. 344) and copy connect.php to this directory, then make the necessary changes to connect.php to get the same browser message as before (i.e. a response to say that it connected to Oracle).