CPSC 368: Databases in Data Science

Tutorial: Introduction to SQL Using Oracle's SQL*Plus

Steps

1. Download bookbiz.sql from the URL https://www.students.cs.ubc.ca/~cs-368/resources/bookbiz.sql and copy it to a folder of your choice in your account on remote.students.cs.ubc.ca. How?

- Windows users: Use xftp (part of XManager).
- Mac users: Use the scp command or FileZilla or Cyberduck.
- 2. Browse through the bookbiz.sql file and examine its contents. You can either use the cat command on the undergrad server (e.g., cat bookbiz.sql) or open up the bookbiz.sql file on your computer using an application like Notepad++ (for Windows) or TextEdit (for Macs).
- Read and follow the instructions at https://www.students.cs.ubc.ca/~cs-368/resources/sql-plus-setup.html (specifically the "Setting Up" and "Logging In" sections).
- 4. Use SSH to connect to the department's servers:

```
ssh cwl@remote.students.cs.ubc.ca
```

5. **Navigate to the directory where you put bookbiz.sql.** Not sure how to navigate to the directory? Use cd <directory name> in your command line application.

From that directory, log in to SQL*Plus by typing the command:

```
rlwrap sqlplus ora CWLid@stu
```

You will be asked to provide your password. Your password is a12345678 (note: replace the digits "12345678" with your student number).

The rlwrap command is optional but including it allows you to use arrow keys within SQL Plus.

6. After successfully logging into SQL*Plus, load the bookbiz.sql data into your database by typing the command: start bookbiz.sql

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7. Now that your data has been loaded into the database, you can start exploring SQL by trying out some SQL statements. The following statement, <u>ending with a semi-colon</u>, will query the Oracle system catalog to show you the tables in your databases:

```
• SQL> select table name from user tables;
```

Suppose you have a table named authors. Then, you can check the schema of this table by executing the following command:

• SQL> describe authors;

You can display all the data (i.e., all the row instances or record instances) in this table by executing the following SQL DML statement:

```
• SQL> select * from authors;
```

- 8. Before you start working on the questions, be sure to read through other sections in the link provided in Step 3. There are lots of helpful commands to know to make navigating in SQL Plus easier.
 - You can also use any other SQL tool of your choice.