**CCGC 5004 Database Systems**

**Lab Exercise 6 Create Tables**

**Overview**

**To receive credit for this lab you must be present in today’s class. Late submissions are deducted 5% per day up to 5 days. Submissions received after 5 days will be given a grade of 0.**

**You will write and execute the required statements as requested in the questions below.**

1. Write the code that adds an index to the my\_guitar\_shop database for the zip code field in the Addresses table.

(Screen Capture 1)

1. Create the following tables in your current database. Use Workbench for this. Call the products table PRODUCTS2 so it does not conflict with the other table name.

Graphical user interface, text, application

Description automatically generated

In the Downloads table, the user\_id and product\_id columns are the foreign keys.

Include statements to create and select the database. (Use your existing database value)

Include any indexes that you think are necessary.

Specify the InnoDB storage engine for all tables.

(**Screen Capture** **2**.) You may use additional screen captures, 2A, 2B etc.

1. Write INSERT statements to add rows to the tables that are created in Exercise 2. **Screen Capture 3**. When you use additional commands use 3A, 3B etc. for additional screen captures.

Add two rows to the Users table for the first two User IDs.

Add two rows to the Products table for the first two Product IDs.

Add three rows to the Downloads table: one row for user 1 and product 2; on for user 2 and product 1: and one member 2 and product 2.

Write a SELECT statement that joins the three tables and retrieves data from the tables like this:

Graphical user interface, text, application

Description automatically generated with medium confidence

Sort the results by the email address in descending sequence, and the product name in ascending sequence.

1. Write an ALTER TABLE statement that adds two new columns to the Products table created in question 2.

Add one column for the product price that provides three digits to the left of the decimal point and two digits to the right of the decimal point. This column should have a default value of 9.99. (Screen Capture 4)

Add a column for the date and time the product was added to the database.

1. Write an ALTER TABLE statement that modifies the Users table created in question 2 so the first name column cannot store NULL values and can store a maximum of 20 characters. Then use an INSERT statement to attempt to insert a a NULL value to the first name column. This statement should fail due the NOT NULL constraint. (**Screen Capture 5**)
2. Code another UPDATE statement that attempts to insert a first name that is longer than 20 characters. It should fail due to the length of the column. (**Screen Capture 6**)