Objectives:

* SQLite and Python

**There are 7 print screens each worth 14.2%**

**Project 1** (Create a database and label it as **CustomerDB** then create the **Contacts** table below with a Primary key on the ContactID column). Use the *SQLite Studio Management* software.

Graphical user interface, table

Description automatically generated

Text, letter

Description automatically generated

**Project #2** (using Python to extract all names that end with the letter s) uses the like statement.

Text

Description automatically generated

**Project #3** (Using Database Triggers)

A database trigger will execute, or fire based on the DML statements such as Delete, Insert and Update.

The company table will be used as the main table.

Text

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The audit table will be used to transfer the data using the database trigger.

Text

Description automatically generated

This trigger will transfer the data into the audit table from the company table after it is inserted into the company table.

Logo, company name

Description automatically generated

This is the syntax to enter new information.

Text

Description automatically generated

To verify the information from the audit table.

A picture containing logo

Description automatically generated

**Challenge Exercise #1:** connect the company table to python and from the python, the application executes the trigger just created above.

**#1 print screen the code with output on the python application below here**

**#2 on the SQLite studio, execute the select statement against the audit table to verify that the database trigger has worked. Print screen the output below here.**

**Project #4** (Using Database Views), a database view is used to view and or read the data, and NOT update, delete, or insert data.

Graphical user interface, text

Description automatically generated

Try to use the delete statement to delete a row from the view.



Notice, we get the following error below, because a view is used for read-only purposes.



**Project #5** (Using the Update, Delete Statements, and the Alter command)



Deleting from a range



Using the update statement



Using the Alter Statement to add a column

A picture containing text, orange

Description automatically generated

**Challenge Exercise #2:** Using the update statement, update the gender column with either M or F.

**#3 print screen the updated SQL code with the output below here.**

**Challenge Exercise #3:** Using the SQL script design the following employee data table below, and then enter the information using the SQL script.

Table

Description automatically generated

**#4 print screen the create and insert SQL code with the output below here. Be sure to execute the select command to show the data in the table.**

**Challenge Exercise #4:** Create a new python application and extract all employees who live in New York City. Be sure to extract all the rows with columns.

**#5 Print screen below here.**

Extract employee id greater than 3 and above. Be sure to extract all the rows with columns.

**#6 Print screen below here.**

**Challenge Exercise #5:** Using SQL creates the relationship as shown in the diagram below.

Graphical user interface

Description automatically generated

Then enter the information as shown in the diagram below.

Table

Description automatically generated

Then join the three tables and print the screen below.

**#7 print screen all the SQL scripts below here.**

**Submit this document to the Module 10 class exercise.**