This assignment has a short reading part and a development part. Hand both parts in together at the beginning of class on the due date.

**Part 1: Reading Assignment.** Read the following sections in the textbook and then answer the questions below.

- Ch. 3: 3.1, 3.2

In addition, use the following as a reference:


1. Briefly compare the basic types in the textbook (pg. 59) to those available in MariaDB. Specifically, are all of the basic types in the textbook supported in MariaDB? What, if any, are the types supported by MariaDB that are not listed as basic types in the textbook?

2. Consider the “not null” constraint in “create table” statements. Briefly describe the purpose of the **not null** constraint in your own words and also come up with an example table (not used in your part 2 below or in chapter 3) that contains at least two attributes, one with a **not null** constraint and one without a **not null** constraint. Justify why these constraints (or lack of constraint) makes sense in the example.

3. Use MariaDB/MySQL to see if it supports adding attributes to tables using the “alter table” syntax described in the textbook, and the effect it has if any on tables that have one or more existing rows. Describe how you tested this and show the results of your tests.

**Part 2: Database Implementation.** Use SQL to create and populate the tables you defined in HW 1. You should “implement” the tables within MariaDB/MySQL (either on the database server, or within your own MariaDB/MySQL installation). When defining your tables with SQL, pick appropriate data types and basic constraints (i.e., key, foreign key, and not null). Your tables should be able to support the queries described in HW 1, however, you don’t need to write these queries yet using SQL. Your tables should contain enough rows so that each query from HW 1 would return at least two different results. Note that you may modify your schema from HW 1 as needed (e.g., if you find some issues with the way you have defined your tables). If you do need to modify your tables, describe the modifications needed in your assignment reflection.

Finally, create a script (.sql) file that can be used to create and populate your tables. To make testing easier, the beginning of your script should first drop all of the tables you create if they exist (prior to creating the tables themselves) so that the script can easily be run over an existing database instance.

For this part, turn in a hard copy print out of your SQL script for creating and populating your tables and the contents of your tables as shown by MariaDB/MySQL (e.g., using **SELECT * FROM tablename**). In addition, use the online submission system to upload your SQL script under Homework 2. Be sure to include a cover sheet attached to the top of your print out as well as an assignment reflection. Your hard copy should also contain your answers to part 1 (but you don’t need to submit your part 1 answers online).