Assignment #5
Normalization and Creation of A Database Design

Purpose: To demonstrate the ability to normalize and create a database design using MSVisio, which provides a visual representation of the relational database design.

Instructions:

In today's world, most college students use various types of social media (e.g, Facebook, LinkedIn, Instagram, YouTube, Twitter and others). Social media usage involves various activities (e.g., friending others, sharing pics, posting statuses, making comments, etc.). Some social media support specific activities. Get together with your group and discuss the various types of social media that each member uses on a daily basis. Use this information to determine the tables, fields and relationships that should exist in the database design that will help maintain relevant data about student's social media usage. Document your database design as follows:

- □ A. Specify tables, primary keys and foreign keys using parenthetical method. (Relations will need to be in 3NF.) Hint: Begin with your list of fields and go through the process of normalization to ensure relations are in 3NF.

- □ B. Refer to Figure 5-26 on page 312. Describe the field/column specifications for at least one table. Briefly explain how this is used in database design.

- □ C. Create a visual representation of your database design as an IE Crow's Foot E-R diagram similar to Figure 5-27 on page 315. Illustrate strong entities and weak entities in a manner that they are differentiated in the diagram.

- □ D. Briefly discuss the importance of referential integrity constraint enforcement for database design and explain factors that help determine cascading options.

- □ E. Since you just created a database design in this exercise, explain the major difference between a data model (Ch. 4) and a database design (Ch. 5) during the transformation phase.

- □ Create one single document addressing each of the above tasks (A-E). Save the document as a pdf file and submit one document per group.