CS5200 Database Management Systems Fall 2022

Homework Assignment 01 Good Beginnings

Assigned: Fri 09 SEP 2022 **Due:** Wed 21 SEP 2022

Instructions:

- The assignment is to be uploaded to Canvas by the due date, which is scheduled for 11:59pm ET that day since solutions will be distributed soon after.
- We expect that you will study with friends and often work out problem solutions together, but you must write up your own solutions, in your own words. Cheating will not be tolerated. Professors and TAs will be available to answer questions but will not do your homework for you. One of our course goals is to teach you how to think on your own and solve your own problems using your resources.
- We require that all homework submissions be neat and organized. You may either type your solutions in a word processor and print to an Adobe pdf or write them by hand and submit a legible scanned copy in Adobe pdf. Do write and submit your answers as if they were a professional report. There will be point deductions if the submission is not neat (is disordered, difficult to read, scanned upside down, etc.).
- To achieve full credit, show INTERMEDIATE steps leading to your answers throughout.

Problem 1 [80 points: (20 points each)]: Database Analysis

Presuming that you have installed the software identified in the Software Installation Guide, specifically the Chinook database, use the DBviewer of your choice to examine the database configuration. From this set of data and metadata, answer the following questions:

- i. Identify at least 2 informal queries that you might expect to make on the Chinook database.
- ii. Identify at least 2 update operations that you would expect to apply to the Chinook database.
- iii. Specify all the relationships you can deduce between any two objects as defined in the Chinook database.
- iv. Reference two database objects that may require some form of constraint applied to maintain integrity.

Problem 2 [20 points]: User Consideration

Using the same Chinook database as the reference model, describe the types of users that would be involved in accessing, creating, and maintaining the database. Who are they? What is their function? How might these users be interconnected?