

# **MSDS 7330**

## **File Organization and Database Management**

### **Mini Project 1**

This is a mini project for MSDS 7330, File Organization and Database Management. For this assignment, turn in a single pdf file containing all of your answers. The file should be named yourLastNameMiniProjectNumber.pdf. For example, the file name for my mini project 1 would be 'RafiqiMiniProject-1.pdf'.

Collaboration is expected and encouraged; however, each student must hand in their own homework assignment. To the greatest extent possible, answers should not be copied but, instead, should be written in your own words. Copying answers from anywhere is plagiarism, this includes copying text directly from the textbook. Do not copy answers. Always use your own words and your own code. Directly under each question list all persons with whom you collaborated and list all resources used in arriving at your answer. Resources include but are not limited to the textbook used for this course, papers read on the topic, and Google search results. Don't forget to place your name on the first page of the pdf document.

### **E-R Model**

Design an Entity Relationship (ER) model for a University database. Let's assume that we have the following conditions:

1. A college contains many departments
2. Each department can offer any number of courses
3. Many instructors can work in a department
4. An instructor can work only in one department
5. For each department there is a Head
6. An instructor can be head of only one department
7. Each instructor can take any number of courses
8. A course can be taken by only one instructor
9. A student can enroll for any number of courses
10. Each course can have any number of students

**Use the following steps:**

**Step 1 : Identify the Entities**

**Step 2 : Identify the relationships**

**Step 3: Identify the key attributes**

**Step 4: Identify other relevant attributes (whenever possible)**

By connecting all these details, draw the ER diagram. Submit ER Diagram