INF202 – Introduction to data and databases
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Mid-term project

Design a relational database for a Course Registration System (CRS) for a college. This database maintains registration data for one semester only. Each course is instructed by a professor and a professor may teach one or more courses. A course and professor combination is known as "Class Session." The students register for a set of Class Sessions in the beginning of the semester. The database maintains following information for each student:

1) STUDENT_ID (A unique identifier given to each student)
2) FIRST_NAME
3) LAST_NAME
4) MIDDLE INITIALS
5) SSN
6) Date of Birth
7) ADDRESS IN CAMPUS
8) HOME ADDRESS
9) COUNTRY OF CITIZENSHIP
10) E-MAIL ADDRESS

The database maintains the following information about each professor:

1) EMPLOYEE_ID (A unique identifier given to each employee of the college)
2) FIRST_NAME
3) LAST_NAME
4) MIDDLE INITIALS
5) HOME ADDRESS
6) E-MAIL ADDRESS
7) CONTACT PHONE NUMBER

The database maintains the following information about each course:

1) COURSE_ID (A unique identifier given to each course. Example: INF202)
2) COURSE_NAME
3) COURSE_OBJECTIVE
4) CREDIT_HOURS

In addition to above pieces of information, the database should maintain information related students' registrations to class sessions.

Please note that a professor can teach only one class session for a course. For example, if Professor Paul teaches an INF202 class session, he cannot teach the same course in another class session. However he can teach a class session for the course INF100 in the same semester. A student can register for only one class session for a course. For example, if student Kelly Smith registers for the class session of the course INF202 taught by Prof. Paul, she cannot register for any other class session of INF202 course. However, she can register for a class session of INF200 course taught by the same professor.

Your tasks:

1) Come up with a mission statement for the project (1 point)

2) Show the ER-Diagram (data model diagram) for the database tables along with cardinalities of the relationships at both ends. You may hand draw this legibly, scan and upload with your assignment (4 points)

3) All the tables should be normalized containing no repeating data items and redundant non-key items (4 points)

4) Identify the primary column(s) and applicable foreign key column(s) for each of the tables. (3 points)

5) List down all the columns for each of the tables (3 points)