## **DBMS II LAB 02**

Prepared by: Mohammad Anas Jawad Lecturer, IUT CSE



Department of Computer Science and Engineering
Islamic University of Technology
November 30, 2021

<u>Note:</u> Remember to write down your commands and errors encountered in a notepad file to be evaluated.

Any kind of plagiarism is going to be severely penalized.

## TASK 1

<u>Instructions:</u> Read the following scenario and design the ERD of the scenario. Then write down the necessary DDL statement to create the corresponding relational model.

Suppose you are given the task for automation of the result processing system of a very large university where number of departments is more than 50, and in each department there are at least 3 programs and number of students (in total) is at least 30000 for one year.

Each year students are admitted for a specific program. Each program has a fixed number of semesters. In each semester a student is registered against a number of courses.

Normally one course is conducted by one teacher. Grading policy is similar to that of IUT. A course has its *code*, *title*, *credit* as attributes.

Beside academic activities, university wants to keep students basic information such as: *Student Name*, *Date of Birth*, *Permanent Address*, *Present Address*, *Physical Height*, *Department*, *Program*, *Blood Group*. University also keeps information about extra-curricular activities of each student as well as anti-disciplinary activities.

Your ERD and relational model should be designed in such a way that you can answer the following questions.

- 1. Find the total number of students for each department and each program of that department.
- 2. Find out list of courses (code and title) a student (his name, DOB) has taken for a specific semester.
- 3. Find out top 3 students according to extra-curricular activities. Also list worst 3 students according to anti-disciplinary activities.