###### Cairo University

**Faculty of Computers and Information Information Systems Department Database Systems 1**

**Lab 4**

**(DDL)**

1. Write SQL DDL statements for declaring a database named “FCI” with two tables: Student and Department. Specify the appropriate attributes for each table. Also, determine the appropriate primary key for each table.
2. Assume that the student has to be in either CS department, IS department, IT department or DS department.
3. Create the necessary relation between tables Student and Department through a foreign key.

CREATE DATABASE FCI

CREATE TABLE Department

(

DeptCode VARCHAR(5) NOT NULL,

Name CHAR(5) CHECK (Name in ('CS','IS','IT','DS')),

PRIMARY KEY (DeptCode)

);

CREATE TABLE Student

(

SSN INT NOT NULL,

Name CHAR(45),

City VARCHAR(15),

Major VARCHAR(5),

PRIMARY KEY (SSN),

DeptCode VARCHAR(5) FOREIGN KEY REFERENCES Department(DeptCode)

);

4. Assume that you forget to add the number of students in each Department. Write the SQL statement needed to do the necessary changes.

ALTER TABLE Department

ADD numberofstudents int;

1. Remove the Major column from the table Student.

ALTER TABLE Student

DROP COLUMN Major;

1. Change the data type of the Name column in the table Student to be VARCHAR(100).

ALTER TABLE Student

ALTER COLUMN Name VARCHAR (100);