CSC-430 / 530– Database Management Systems / Database Theory

Lab 4: EXERCISE , Feb 4, 2022

TIME: 45 mins

INSTRUCTIONS

a. **Write the SQL queries and for all questions below.**
b. **Submit the resulting SQL queries in a .docx file via moodle.**
c. **Use Exercise handout provided in class and the slides on Lab 4.**
d. **NOTE: DO NOT access internet and NO peer guidance.**

Answer all queries below:

1. Create a **view** that returns all rows from the **STUDETNS** table and only two columns, the **name** as "**sname**" and **address** as "**saddress**" **(1 point)**

2. Write a **trigger** that checks for age of a professor before inserting it in the PROFESSORS table and returns an error if the age is below 18yrs. To get age from Dateofbirth use DateDiff(Now(),DateOfBirth)/365 **(2 points)**

3. Create a **view** that returns all rows and columns from join of **STUDENTS**, **COURSES** and **TAKE** tables **(1 point)**

4. Write a trigger that makes a backup copy of a record in the TAKE table and saves it in TAKE_BACKUP whenever that record is deleted from the TAKE table. **(2 points)**
   Note: Use SQL below to create TAKE_BACKUP table.

```
CREATE TABLE TAKE_BACKUP (SELECT * FROM TAKE WHERE 1 = 2);
```

5. Write a trigger to keep track of changes made on the GRADE in the TAKE table and saves them in a GRADE_CHANGE table. **(2 points)**
   Note: Use SQL below to create GRADE_CHANGE table.

```
CREATE TABLE GRADE_CHANGED (
   SID VARCHAR(45) NOT NULL ,
   OLDGrade VARCHAR(45) NULL ,
   NEWGrade VARCHAR(45) NULL );
```