**MySQL Labs**

**MySQL (Day1):**

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| **1** | **Create a database called grades** |
|  | **CREATE DATABASE GRADES;**  **USE GRADES;** |
| **2** | **Create the following tables in the grades database:**  ***courses***  ***course\_id*** *int pk*  *course\_name varchar(100) not null*  *credit\_hour int*  ***students\_courses***  ***course\_id*** *int*  ***student\_id*** *int*  *grade int*  *reg\_date date*  ***students***  ***student\_id*** *int pk*  *student\_name varchar (100) not null*  *email varchar (50)*  *tel varchar (20)* |
|  | **create table students(**  **-> Student\_id int primary key,**  **-> Student\_name varchar(100),**  **-> Email varchar(50),**  **-> Tel varchar(20));**  **create table courses(**  **-> Course\_id int primary key,**  **-> Course\_Name varchar(100) not null,**  **-> Credit\_hour int);**  **create table Students\_courses(**  **-> Course\_id int,**  **-> Student\_id int,**  **-> Grade int,**  **-> reg\_date date);** |
| **3** | **Modify the students table to allow for longer Student names (150 char)**  **Confirm your modification.** |
|  | **alter table students modify Student\_name varchar(150);** |
| **4** | **Add constraint to force unique email for each student** |
|  | **alter table students modify Email varchar(50) unique;** |
| **5** | **Get Time, Date, Current user, MySQL Version using prompt?** |
|  | **SELECT VERSION();**  **SELECT USER();**  **SELECT CURRENT\_DATE();**  **SELECT CURRENT\_TIME();** |
| **6** | **Add gender column for the students table. It holds two value (male or female)** |
|  | **alter table students add gender enum ('male' , 'female');** |
| **7** | **Add birth\_date column for the students table.** |
|  | **Alter table students add column birth\_date date;** |
| **8** | **Drop the student\_name column and replace it with first name and last name.** |
|  | **alter table students drop Student\_name;** |
| **9** | **Insert your friend’s data into the table students.** |
|  | **$insert into students values(5468, 'khaledess546', '050215465', 'male', '1997/07/18, 'khaled', 'essam');** |
| **10** | **Create a new table (male\_students) based on students table and fill it with the data of male students** |
|  | **$create table male\_students as select \* from students;** |

**Part II**

**Create another database “CMS\_Alex”**

**Use CMS\_Alex**

**Run Lab Script then answer the following**

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| **1** | **Display all students’ information.** |
|  | **$source F:\ITI\lab1\_script.txt;** |
| **2** | **Display male students only.** |
|  | **$select first\_name , gender from students where gender = 'male';** |
| **3** | **Display the number of female students.** |
|  | **select count(\*) as female\_count**  **-> from students**  **-> where gender = 'female';** |
| **4** | **Display the students’ data for the students who are born before 1992-10-01.** |
|  | **select \***  **-> from students**  **-> where birth\_date < '1992-10-01';** |
| **5** | **Display the students’ data for the students who are born after 1991-10-01.** |
|  | **select \***  **-> from students**  **-> where birth\_date > '1992-10-01';** |
| **6** | **Display course\_id and their grades sorted by grades.** |
|  | **select course\_id, grade**  **-> from students\_courses**  **-> order by grade;** |
| **7** | **Display students’ names that begin with A.** |
|  | **select \***  **-> from students**  **-> where first\_name like 'a%';** |
| **8** | **Display the gender, number of males and females.** |
|  | **select gender, student\_id, first\_name, last\_name**  **-> from students;** |
| **9** | **Display the repeated first names and their counts if higher than 2.** |
|  | **SELECT first\_name, COUNT(\*) AS count**  **-> FROM students**  **-> GROUP BY first\_name**  **-> HAVING count > 2;** |
| **10** | **Display the subject with highest grade** |
|  | **select \***  **-> from students\_courses**  **-> order by grade desc;** |