**MySQL Labs**

**MySQL (Day1):**

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|  | **Create a database called grades** |
|  | Create database grades; |
|  | **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) not null,**  **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,**  **primary key(course\_id,student\_id));** |
| **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 add unique (email);** |
| **5** | **Get Time, Date, Current user, MySQL Version using prompt?** |
|  | **SELECT VERSION();**  **SELECT CURRENT\_TIMESTAMP ;**  **SELECT CURRENT\_USER();** |
| **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 (birth\_date date); |
| **8** | **Drop the student\_name column and replace it with first name and last name.** |
|  | Alter table student drop  student\_name  Add column (firestname varchar(50),lastname(50)); |
| **9** | **Insert your friend’s data into the table students.** |
|  | insert into student values(1,'mohamed.ahmed@gmail.com',01128433189,'male','1995/11/16','mohamed','ahmed'); |
| **10** | **Create a new table (male\_students) based on students table and fill it with the data of male students** |
|  | **Create table male\_student (**  **Select \* from student where gender like ‘male’**  **);** |

**Part II**

**Create another database “OS42”**

**Use OS42**

**Run Lab Script then answer the following**

|  |  |
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| **1** | **Display all students’ information.** |
|  | select\*from students; |
| **2** | **Display male students only.** |
|  | select \* from students  where gender like 'male'; |
| **3** | **Display the number of female students.** |
|  | select tel from students where gender like 'female'; |
| **4** | **Display the students’ data for the students who are born before 1992-10-01.** |
|  | select \* from students where birth\_date <'1992/10/1'; |
| **5** | **Display male students who are born before 1991-10-01.** |
|  | select \* from students where birth\_date <'1991/10/1'; |
| **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 first\_name , last\_name from students where first\_name like 'a%'; |
| **8** | **Display the gender, number of males and females.** |
|  | select gender ,count('male'),count('female')  from students  group by gender; |
| **9** | **Display the repeated first names and their counts if higher than 2.** |
|  | select first\_name , count(first\_name) from students  group by first\_name  having count(first\_name) > 2; |
| **10** | **Display the subject with highest grade** |
|  | select course\_name,grade from courses , students\_courses  where courses.course\_id=students\_courses.course\_id  and  grade=(select max(grade) from students\_courses); |