**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 auto\_increament,**  **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,**  **foreign key (course\_id) references courses(course\_id),**  **foreign key (student\_id) references students(student\_id),**  **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 column student\_name varchar(150) not null;** |
| **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 current\_time();**  **select curdate();**  **select current\_user();**  **select version()** |
| **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 students add first\_name varchar(75), add last\_name varchar(75);**  **alter table students drop column student\_name;**  **--hint: can be displayed first (keyword)** |
| **9** | **Insert your friend’s data into the table students.** |
|  | **insert into students values(1, 'bodda@gmail.com', '1234567', 'male', ‘1996-1-1’, 'abdo', 'ali');** |
| **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 where gender = ‘male’;** |

**Part II**

**Create another database “php”**

**Create database php;**

**Use php**

**Use php;**

**Run Lab Script then answer the following**

**Source D:\Code\iti\iti-labs\php.txt;**

|  |  |
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| **1** | **Display all students’ information.** |
|  | **Select \* from students;** |
| **2** | **Display male students only.** |
|  | **Select \* from students where gender = ‘male’;** |
| **3** | **Display the number of female students.** |
|  | **Select 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 male students who are born before 1991-10-01.** |
|  | **Select \* from students where birth\_date < '1991-10-01' and gender = ‘male’;** |
| **6** | **Display course\_id and their grades sorted by grades.** |
|  | **select course\_id, grade from students\_courses order by grade desc;** |
| **7** | **Display students’ names that begin with A.** |
|  | **select concat(first\_name, ' ', last\_name) as name from students where first\_name like 'A%';** |
| **8** | **Display the gender, number of males and females.** |
|  | **Select gender, count(\*) from students**  **Group by gender;** |
| **9** | **Display the repeated first names and their counts if higher than 2.** |
|  | **select first\_name, count(\*)**  **from students**  **group by first\_name**  **having count(\*) > 2;** |
| **10** | **Display the subject with highest grade** |
|  | **select c.course\_name, sc.grade**  **from courses c, students\_courses sc**  **where c.course\_id = sc.course\_id**  **order by grade desc**  **limit 1;** |