**MySQL Labs**

**MySQL (Day2):**

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| ***1*** | ***Update students courses table, set the registration date value to “Today”;*** |
|  | ***Update students\_courses set reg\_date = CURDATE();*** |
| ***2*** | ***Display the registration date in the following format:***  ***Day, month/ year*** |
|  | ***Select Date\_FORMAT(sc.reg\_date, "%c, %e%y") as reg\_date***  ***From students\_courses as sc;*** |
| ***3*** | ***Display the full name (first, last) of the student with his grade.***  ***if his garde is greater than 85% Excellent, from 75% to 85% Very good, from 65% to 75% Good and from 55% to 65% pass otherwise will be graded as failed.*** |
|  | **Select concat(first\_name,' ',last\_name) as Name , grade,**  **Case**  **When grade > 85 then "Excellent"**  **When grade > 75 then "Very good"**  **When grade > 65 then "Good"**  **When grade > 55 then "Pass"**  **Else "Fail"**  **END as state**  **From students as s inner join students\_courses as sc**  **On s.student\_id = sc.student\_id;** |
| ***4*** | ***Display the capitalized last name , and the grade , if he has no grade display the keyword absent. [using ifNULL function]*** |
|  | ***Select Upper(last\_name) , IFNULL(grade,"absent") as grade***  **From students as s inner join students\_courses as sc**  **On s.student\_id = sc.student\_id;** |
| ***5*** | ***Display students' names, course name along with their grades.*** |
|  | ***Select concat(first\_name,' ',last\_name) as name, course\_name,grade***  ***From students s , students\_courses sc, courses c***  ***On s.student\_id = sc.student\_id***  ***And sc.course\_id = c.course\_id;*** |
| ***6*** | ***For each course, display the course name, min grade, max grade, average grade, number of attended students.*** |
|  | **select course\_name, MIN(grade) as 'min grade',**  **Max(grade) as 'max grade',**  **count(student\_id) as 'Number of attended students'**  **from courses c inner join students\_courses sc**  **on c.course\_id = sc.course\_id**  **group by c.course\_name;** |
| ***7*** | ***Use subquery to display the names of the students who were born before student no 1.*** |
|  | ***select concat(first\_name,' ',last\_name) as Name***  ***from students***  ***where birth\_date < (select birth\_date from students where student\_id = 1);*** |
| ***8*** | ***Use subquery to display the data of all the courses with a credit hour similar to MySQL's credit hours*** |
|  | ***select \****  ***from courses***  ***where credit\_hour = (select credit\_hour from courses where course\_name ="MySQL");*** |
| ***10*** | ***Create a view called female\_students\_vu to display all the female students*** |
|  | ***create view vw\_female\_students***  ***as***  ***select \****  ***from students***  ***where gender = "female";*** |
| ***11*** | ***Try to insert a male student through your view*** |
|  | ***insert into vw\_female\_students (student\_id,first\_name,last\_name,gender,birth\_date)***  ***values(100,"mohamed","ahmed","male","1995-07-03");*** |
| ***12*** | ***Select all the data from your view and then from the students table*** |
|  | ***Select all the data from your view and then from the students table***  ***Select \* from students; select \* from vw\_female\_students; //still 2 records*** |
| ***13*** | ***Prevent the ability to insert another male student through you view*** |
|  | ***alter view vw\_female\_students***  ***as***  ***select \****  ***from students***  ***where gender = "female"*** |
| ***14*** | ***Use the information schema to display the table name , schema and the updatability of the female\_students\_vu view*** |
|  | ***select table\_name,table\_schema,is\_updatable***  ***from views***  ***where table\_name = 'vw\_female\_students';*** |
| ***15*** | ***Use the information schema to display the create time, table\_rows, auto\_increment, and the comments on the students table.*** |
|  | ***select table\_rows,auto\_increment,table\_comment***  ***from tables***  ***where table\_name = "students";*** |
| ***16*** | ***Create a nonunique index on the foreign key column (COURSE\_ID) in the students\_courses table.*** |
|  | ***create index course\_ID\_Index on students\_courses (course\_id);*** |
| ***17*** | ***Create a user with your name and give him the privilege to access the grades database*** |
|  | ***create user 'dafro'@'localhost'***  ***-> identified by '1234';***  ***Grant all privileges on grades to dafro;*** |
| ***18*** | ***Connect to mysql using the user you created and try to insert one record in the courses table.*** |
|  | SYSTEM mysql -u dafro user -p |
| ***19*** | ***Change your password.*** |
|  | ***alter user 'dafro'@'localhost' identified by 'admin'*** |
| ***20*** | ***Show your privileges.***  **Show grants;** |
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