**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 = current\_date();***  ***(toggle safe update from preferences)*** |
| ***2*** | ***Display the registration date in the following format:***  ***Day, month/ year*** |
|  | ***select date\_format(reg\_date, "%d,%M/%Y") as `new date format` from students\_courses;*** |
| ***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(s.first\_name, " ", s.last\_name ) as fullname,**  **case**  **when grade < 55 then "Fail"**  **when (grade >=55 and grade <65) then "pass"**  **when (grade >=65 and grade <75) then "Good"**  **when (grade >=75 and grade <85) then "Very good"**  **else "Excellent"**  **end**  **as Grade\_details**  **from students s,students\_courses c where s.student\_id = c.student\_id;** |
| ***4*** | ***Display the capitalized last name , and the grade , if he has no grade display the keyword absent. [using ifNULL function]*** |
|  | ***select concat(upper(substring(last\_name,1,1)),lower(substring(last\_name,2))) lastName, ifnull(grade,'absent') from students s,students\_courses c where s.student\_id = c.student\_id;*** |
| ***5*** | ***Display students' names, course name along with their grades.*** |
|  | ***select concat( s.first\_name, " ", s.last\_name ) as fullname,course\_name,grade from students s, students\_courses sc,courses c where 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, max(grade) as max , avg(grade) as average ,count(sc.course\_id) as studentsCount from students\_courses sc,courses c where sc.course\_id=c.course\_id group by 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 fullname 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 female\_students\_vu***  ***as***  ***select \* from students where gender = 'female';***  ***;*** |
| ***11*** | ***Try to insert a male student through your view*** |
|  | ***insert into female\_students\_vu values(13,'Abdorrahman','Ramadan','01000000000','AR@gmail.com','male','1988-06-10');*** |
| ***12*** | ***Select all the data from your view and then from the students table*** |
|  | ***It inserts in students table but not it’s not shown in the view*** |
| ***13*** | ***Prevent the ability to insert another male student through you view*** |
|  | ***create or replace view female\_students\_vu***  ***as***  ***select \* from students where gender = 'female'***  ***with check option***  ***;*** |
| ***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 information\_schema.views where table\_name = 'female\_students\_vu';*** |
| ***15*** | ***Use the information schema to display the create time, table\_rows, auto\_increment, and the comments on the students table.*** |
|  | ***select create\_time,table\_rows,auto\_increment,table\_comment from information\_schema.tables where table\_name = 'students' and table\_schema='os42' ;*** |
| ***16*** | ***Create a nonunique index on the foreign key column (COURSE\_ID) in the students\_courses table.*** |
|  | ***alter table students\_courses add index (course\_id);*** |
| ***17*** | ***Create a user with your name and give him the privilege to access the grades database*** |
|  | ***create user 'Abdorrahman'@'localhost' identified by '1234';***  ***grant all privileges on grades to 'Abdorrahman'@'localhost' with grant option;*** |
| ***18*** | ***Connect to mysql using the user you created and try to insert one record in the courses table.*** |
|  | ***insert into students(student\_id,`first name`,`last name`,email,tel,gender,birth\_date) values(12,'Abdorrahman','Ramadan','ARA@gmail.com','01000000000','male','1988-06-10');*** |
| ***19*** | ***Change your password.*** |
|  | ***set password for 'Abdorrahman'@'localhost' = '12345'*** |
| ***20*** | ***Show your privileges.*** |
|  | ***show grants;*** |