**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();** |
| ***2*** | ***Display the registration date in the following format:***  ***Day, month/ year*** |
|  | **SELECT DATE\_FORMAT(reg\_date, "%d,%m/%Y") as modified\_date 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(first\_name,' ',last\_name) as full\_name,grade,**  **case**  **when grade>=85 then 'Excellent'**  **when grade<85 and grade>=75 then 'Very Good'**  **when grade<75 and grade >=65 then 'Good'**  **when grade<65 and grade>=55 then 'Pass'**  **else 'Fail' end as AvgGrade**  **from students s inner join students\_courses 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) as LAST\_NAME ,ifNULL(grade,’Absent’) as grade* from students s inner join students\_courses 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 full\_name, course\_name, grade**  **from students s, students\_courses sc, courses c**  **where s.student\_id = sc.student\_id and c.course\_id=sc.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), max(grade), avg(grade), count(student\_id) 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 full\_namefrom 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(7,’Ibrahem’,’Shaheen’, ‘012’, ‘ibrahem@gmail.com’, ‘Male’, ‘1997-03-10’);** |
| ***12*** | ***Select all the data from your view and then from the students table*** |
|  | **Select \* from female\_students\_vu;**  **Select \* from students;** |
| ***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\_schema =’os42’ and 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\_schema =’os42’ and table\_name=’students’;** |
| ***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);**  **Or Create index c\_id on students\_courses(course\_id);** |
| ***17*** | ***Create a user with your name and give him the privilege to access the grades database*** |
|  | **Create user ‘Shaimaa’@’localhost’ identified by ‘ositi’;**  **GRANT ALL PRIVILEGES ON grades.\* TO 'Shaimaa'@'localhost';** |
| ***18*** | ***Connect to mysql using the user you created and try to insert one record in the courses table.*** |
|  | **mysql -u 'Shaimaa'@localhost -p**  **insert into courses values (7,'OOP',3);** |
| ***19*** | ***Change your password.*** |
|  | **set password for ‘Shaimaa’@’localhost’ = ‘os’;** |
| ***20*** | ***Show your privileges.*** |
|  | **Show grants for ‘Shaimaa’@’localhost’;** |