**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('2021-01-15', '%d/%m/%y') |
| ***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 sc.grade, CONCAT(first\_name , ' ' , last\_name ) as Name,**  **case**  **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"**  **when grade > 85 then "Excellent"**  **else "Failed"**  **end as grades**  **FROM students\_courses sc**  **INNER JOIN students s ON sc.student\_id=s.student\_id;** |
| ***4*** | ***Display the capitalized last name , and the grade , if he has no grade display the keyword absent. [using if NULL function]*** |
|  | ***SELECT IFNULL(grade, "absent") as grades, upper(s.last\_name) as lastname***  ***FROM students\_courses sc INNER JOIN students s ON sc.student\_id=s.student\_id*** |
| ***5*** | ***Display students' names, course name along with their grades.*** |
|  | ***SELECT CONCAT(first\_name , ' ' , last\_name ) as Name, sc.grade,c.course\_name***  ***FROM students\_courses sc***  ***INNER JOIN students s ON sc.student\_id=s.student\_id***  ***INNER JOIN courses c ON 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 COUNT(sc.student\_id) as counts,c.course\_name as coursesName, MAX(sc.grade),MIN(sc.grade),AVG(sc.grade) FROM students\_courses sc INNER JOIN courses c ON c.course\_id=sc.course\_id GROUP BY course\_name** |
| ***7*** | ***Use subquery to display the names of the students who were born before student no 1.*** |
|  | ***SELECT first\_name ,birth\_date 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`(`student\_id`, `first\_name`, `last\_name`, `tel`, `email`, `gender`, `birth\_date`)***  ***VALUES (13,'tarek','shawky','1234','tarek@gmail.com','male','1996-01-01')*** |
| ***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 VIEW female\_students\_vu***  ***AS***  ***SELECT \* FROM students WHERE gender=’male’ 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 FROM INFORMATION\_SCHEMA.VIEWS WHERE TABLE\_NAME = 'student'*** |
| ***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 wz1the grades database*** |
|  | ***CREATE USER 'nagwa'@'localhost' IDENTIFIED BY '100200300';***  **grant all on grades to nagwa identified by ‘100200300’;** |
| ***18*** | ***Connect to mysql using the user you created and try to insert one record in the courses table.*** |
|  | ***mysql-u nagwa -p***  ***INSERT INTO `courses`(`course\_id`, `course\_name`, `credit\_hour`) VALUES (10,'numerical',3)*** |
| ***19*** | ***Change your password.*** |
|  | ***USE mysql;***  ***SET PASSWORD FOR nagwa@'localhost' = PASSWORD('bigshark');***  ***FLUSH PRIVILEGES;*** |
| ***20*** | ***Show your privileges.*** |
|  | [SHOW](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/show-grants.html) [GRANTS](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/show-grants.html) FOR nagwa |