

MySQL Labs

MySQL (Day2):

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 special_date from students_courses;
3	Display the <u>full name (first, last)</u> of the student with <u>his grade</u>. 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 c.grade>85 then 'Excellent' when c.grade between 75 and 85 then 'Very Good' when c.grade between 65 and 75 then 'Good' when c.grade between 55 and 65 then 'Pass' else 'Fail' end as grade from students_courses c ,students s where c.student_id=s.student_id;
4	Display the <u>capitalized last name</u> , and the <u>grade</u> , if he has no grade display the keyword <u>absent</u>. [using ifNULL function]
	select upper (s.last_name) as lastName, ifnull(c.grade,'absent') as grade from students_courses c RIGHT JOIN students s on(c.student_id=s.student_id);
5	Display <u>students' names</u>, <u>course name</u> along with their grades.
	select concat (s.first_name," ",s.last_name) as fullName,c.course_name,sc.grade from students_courses sc ,students s,courses c

	<i>where sc.student_id=s.student_id and sc.course_id=c.course_id;</i>
6	<i>For each course, display the <u>course name</u>, <u>min grade</u>, <u>max grade</u>, <u>average grade</u>, <u>number of attended students</u>.</i>
	<i>select c.course_name,min(sc.grade) as min_grade ,max(sc.grade) as max_grade,avg(sc.grade) as avg_grade ,count(*) as noOfStudents from courses c,students_courses sc where c.course_id=sc.course_id group by course_name;</i>
7	<i>Use subquery to display the <u>names of the students</u> who were born before student no 1.</i>
	<i>select concat(first_name," ",last_name) as fullName from students where birth_date<(select birth_date from students where student_id=1);</i>
8	<i>Use subquery to display the <u>data of all the courses</u> with a <u>credit hour</u> similar to MySQL's credit hours</i>
	<i>select * from courses where credit_hour = (select credit_hour from courses where course_name="MySQL") and course_name != "MySQL";</i>
10	<i>Create a view called <u>female_students_vu</u> to display all the female students</i>
	<i>create view female_students_vu as (select * from students where gender="female");</i>
11	<i>Try to <u>insert a male student</u> through your view</i>
	<i>insert into female_students_vu (student_id,first_name,last_name,gender,birth_date) values (6,"ahmed","mohamed","male","1999-09-09");</i>
12	<i>Select all the data from your view and then from the students table</i>

	<pre>select * from female_students_vu; select * from students;</pre>
13	Prevent the ability to insert another male student through you view
	<pre>alter view female_students_vu as (select * from students where gender="female") with check option;</pre>
14	Use the information schema to display the <u>table name</u> , <u>schema</u> and the <u>updatability</u> of the <i>female_students_vu</i> view
	<pre>select table_schema,table_name,is_updatable from views where table_name='female_students_vu';</pre>
15	Use the information schema to display the <u>create time</u> , <u>table rows</u> , <u>auto increment</u> , and the <u>comments</u> on the students table.
	<pre>select create_time,table_rows,auto_increment,table_comment from tables where table_name='students';</pre>
16	Create a nonunique index on the foreign key column (COURSE_ID) in the students_courses table.
	<pre>alter table students_courses add index (course_id);</pre>
17	Create a user with your name and give him the privilege to access the grades database
	<pre>create user 'omnia'@'localhost' IDENTIFIED by 'db';</pre>
18	Connect to mysql using the user you created and try to insert one record in the courses table.
	<pre>mysql -u omnia -p use grades; insert into courses values (1,'DataBase',3);</pre>
19	Change your password.
	<pre>Set password for 'omnia'@'localhost' = password('omnia');</pre>
20	Show your privileges.
	<pre>Show grants for omnia;</pre>

