MySQL Labs

**MySQL (Day3):**

**insert into students\_courses**

**values**

**(1,4,60,NULL),**

**(2,1,NULL,NULL),**

**(2,4,75,NULL),**

**(3,1,NULL,NULL),**

**(3,2,NULL,NULL),**

**(3,3,75,NULL);**

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| *1* | ***Create function to calculate the number of students who get grade less than 80 in a certain exam (course id will be sent as a parameter)*** |
|  | * *create function calcS(p\_course\_id integer)* * *-> Returns integer* * *-> begin* * *-> declare studentCount integer;* * *-> set studentCount =(select count(student\_id) from students\_courses where grade < 80 and course\_id = p\_course\_id);* * *-> return studentCount;* * *-> end$* |
| *2* | ***Create stored procedure to display the names of the absence students of a certain courses.(Absent means has no grades)*** |
|  | * *CREATE PROCEDURE display\_abscents(p\_course\_id integer)* * *-> BEGIN* * *-> select concat(s.first\_name, " ", s.last\_name) as full\_name FROM students s , students\_courses c WHERE s.student\_id = c.student\_id AND c.course\_id = p\_course\_id AND c.grade IS NULL;* * *-> END$* |
| *3* | ***Create stored procedure to calculate the average grades for certain course.*** |
|  | *CREATE PROCEDURE display\_avg\_grade(c\_id integer)*   * *-> BEGIN* * *-> select avg(grade) FROM students\_courses WHERE course\_id = c\_id;* * *-> END$* |
| *4* | ***Create trigger to keep track the changes(updates) of the grades in the studnets\_courses table***  ***( create changes table with the following fields:***  ***id int primary key ,***  ***user varchar(30),***  ***action varchar(40),***  ***old\_grade int,***  ***new\_grade int,***  ***change\_date date).***  ***Test the trigger by updating grade int the “Students\_courses” table***  ***Confirm that the row is added in the” change\_table”*** |
|  | *CREATE TABLE changes (*  *id INT PRIMARY KEY AUTO\_INCREMENT,*  *user VARCHAR(30),*  *action VARCHAR(40),*  *old\_grade INT,*  *new\_grade INT,*  *change\_date DATE*  *);*  *create trigger changes\_detect*  *after update on students\_courses*  *for each row*  *insert into changes (user,action,old\_grade,new\_grade,change\_date)*  *values(current\_user(),'update',old.grade,new.grade,*  *current\_date());* |
| *5* | ***Create event to delete the changes tables every 5 minute*** |
|  | *create event delete\_changes*  *-> ON SCHEDULE EVERY 5 MIN*  *-> DO*  *-> DELETE FROM CHANGES;* |
| ***6*** | **Create a user with your name and give him the privilege to access the grades database** |
|  | *create user 'ahmed\_khaled' IDENTIFIED BY '12345';*  *grant all on grades1.\* to 'ahmed\_khaled';* |
| ***7*** | **Connect to mysql using the user you created and try to insert one record in the courses table.** |
|  | *insert into courses values(7,'c++',5);* |
| ***8*** | **Change your password.** |
|  | *set password = password('123');* |
| ***9*** | **Show your privileges.** |
|  | *SHOW GRANTS;* |