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);**

|  |  |
| --- | --- |
| *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)*** |
|  | **delimiter #**  **create function count\_of\_good(c\_id int)**  **returns int(5)**  **begin**  **declare st\_number int;**  **set st\_number =**  **( select count(student\_id)**  **from students\_courses**  **where course\_id = c\_id and grade < 80 );**  **return st\_number;**  **end#**  **delimiter ;** |
| *2* | ***Create stored procedure to display the names of the absence students of a certain courses.(Absent means has no grades)*** |
|  | **drop procedure if exists view\_absent;**  **delimiter #**  **create procedure view\_absent(c\_id int)**  **begin**  **select concat(first\_name,' ',last\_name) as full\_name, g.course\_id**  **from students s, students\_courses g**  **where s.student\_id = g.student\_id**  **and course\_id = c\_id and grade IS NULL;**  **end #**  **delimiter ;**  **call view\_absent(1);** |
| *3* | ***Create stored procedure to calculate the average grades for certain course.*** |
|  | **drop procedure if exists view\_absent;**  **delimiter #**  **create procedure find\_avg(c\_id int)**  **begin**  **select avg(grade)**  **from students\_courses**  **group by course\_id**  **having course\_id = c\_id;**  **end #**  **delimiter ;**  **call view\_absent(1);** |

|  |  |
| --- | --- |
| *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”*** |
|  | **delimiter #**  **create function get\_fullname(s\_id int)**  **returns varchar(50)**  **begin**  **return(**  **select concat(first\_name, ' ', last\_name)**  **from students**  **where student\_id = s\_id );**  **end #**  **delimiter ;**  **create trigger track\_changes**  **after update on students\_courses**  **for each row**  **insert into change\_table (user, action, old\_grade, new\_grade)**  **values (get\_fullname(old.student\_id), 'UPDATE', old.grade, new.grade);**  **update students\_courses**  **set grade = 100**  **where student\_id = 2 and course\_id = 2;** |
| *5* | ***Create event to delete the changes tables every 5 minute*** |
|  | create event delete\_change\_table on schedule every 5 minute do delete from change\_table; |
| ***6*** | **Create a user with your name and give him the privilege to access the grades database** |
|  | **create user 'kareem' identified by '123';**  **grant all on mob39.\* to 'kareem';** |
| ***7*** | **Connect to mysql using the user you created and try to insert one record in the courses table.** |
|  | **mysql -u kareem -p**  **insert into courses values ( 7, 'PHP', 3);** |
| ***8*** | **Change your password.** |
|  | **set password = password('123456');** |
| ***9*** | **Show your privileges.** |
|  | **show grants for 'kareem';** |

*Kareem Ibraheem*