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)*** |
|  | *delimiter $*  *create function fn\_calc\_std\_number\_lessThan80(p\_id int)*  *returns int*  *begin*  *declare result int;*  *set result =*  *(select count(\*) from students\_courses where student\_id = p\_id*  *and grade < 80);*  *return result;*  *END$*  *delimiter ;* |
| *2* | ***Create stored procedure to display the names of the absence students of a certain courses.(Absent means has no grades)*** |
|  | *delimiter $*  *create procedure proc\_show\_absence\_students()*  *begin*  *select concat(first\_name,' ',last\_name) as Name*  *from students as s inner join students\_courses as sc*  *on s.student\_id = sc.student\_id*  *where ISNULL(sc.grade);*  *end$*  *delimiter ;* |
| *3* | ***Create stored procedure to calculate the average grades for certain course.*** |
|  | *delimiter $*  *create procedure proc\_calc\_average\_grade(p\_id int)*  *begin*  *select AVG(grade) as 'grade'*  *from students\_courses*  *where course\_id = p\_id;*  *end$*  *delimiter ;* |
| *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(50),**  **action varchar(40),**  **old\_grade int,**  **new\_grade int,**  **change\_date date) ;**  **create trigger tr\_students\_courses\_log**  **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,CURDATE());** |
| *5* | ***Create event to delete the changes tables every 5 minute*** |
|  | create event clear\_change\_table  on schedule every 5 minute  do  delete from changes; |