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)*** |
|  | *set global log\_bin\_trust\_function\_creators=1;*  *delimiter $$*  *create function student\_grade(p\_course\_id int)*  *RETURNS INT*  *begin*  *return (select COUNT(\*) as Counter from students\_courses where course\_id = p\_course\_id AND grade < 80);*  *end $$*  *delimiter ;*  *select student\_grade(3);* |
| *2* | ***Create stored procedure to display the names of the absence students of a certain courses.(Absent means has no grades)*** |
|  | *delimiter $$*  *CREATE procedure display\_names(p\_course\_id int)*  *BEGIN*  *select \* from students\_courses where course\_id = p\_course\_id AND grade is NULL;*  *END $$*  *delimiter ;*  *call display\_names(2);* |
| *3* | ***Create stored procedure to calculate the average grades for certain course.*** |
|  | *delimiter $$*  *CREATE procedure display\_avg(p\_course\_id int)*  *BEGIN*  *select avg(grade) as Average from students\_courses WHERE course\_id = p\_course\_id GROUP BY course\_id;*  *END $$*  *delimiter ;*  *call display\_avg(2);* |
| *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 auto\_increment,***  ***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\_table (id int primary key auto\_increment,**  **user varchar(30),**  **action varchar(40),**  **old\_grade int,**  **new\_grade int,**  **change\_date date);**  **CREATE TRIGGER after\_grades\_update**  **AFTER UPDATE ON students\_courses**  **FOR EACH ROW**  **INSERT INTO changes\_table**  **SET action = 'update',**  **user = current\_user(),**  **old\_grade = OLD.grade,**  **new\_grade = NEW.grade,**  **change\_date = CURDATE();**  **Update students\_courses SET grade = 97 WHERE student\_id = 2 AND course\_id = 1;**  **select \* from changes\_table;** |
| *5* | ***Create event to delete the changes tables every 5 minute*** |
|  | CREATE EVENT delete\_from\_changes  ON schedule EVERY 5 minute  DO  DELETE FROM changes\_table;  Select \* from changes\_table; |