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**// DBMSL Assignment 8**

**//Queries:-**

**mysql> use dbmsla8;**

**Database changed**

**mysql> delimiter //**

**mysql> CREATE TRIGGER before\_library\_insert BEFORE INSERT ON library**

**-> FOR EACH ROW**

**-> BEGIN**

**-> declare numbooks int;**

**-> select count(\*) into numbooks from library where roll=NEW.roll;**

**-> if numbooks > 3 then**

**-> insert into lib\_audit values (NEW.roll,NEW.stud\_name,NEW.bname,"Any issue after 3 active issues will be charged for Rs. 10",sysdate());**

**-> else**

**-> insert into lib\_audit values (NEW.roll,NEW.stud\_name,NEW.bname,"No. of active issues is less than 3",sysdate());**

**-> end if;**

**-> END;**

**-> //**

**Query OK, 0 rows affected (0.17 sec)**

**mysql> CREATE TRIGGER after\_library\_insert AFTER INSERT ON library**

**-> FOR EACH ROW**

**-> BEGIN**

**-> insert into lib\_audit values (NEW.roll,NEW.stud\_name,NEW.bname,**

**-> "Book successfully issued",sysdate());**

**-> END;**

**-> //**

**Query OK, 0 rows affected (0.19 sec)**

**mysql> CREATE TRIGGER before\_library\_delete BEFORE DELETE ON library**

**-> FOR EACH ROW**

**-> BEGIN**

**-> declare issuedays int;**

**-> declare fine int;**

**-> declare logstmt varchar(100);**

**-> declare finestr varchar(100);**

**-> declare finallogstmt varchar(200);**

**-> SET issuedays = (select datediff(sysdate(),OLD.doi));**

**-> SET fine = 10\*(issuedays-15);**

**-> SET finestr = (select CONVERT(fine, char(100)));**

**-> if issuedays < 15 then**

**-> insert into lib\_audit values (OLD.roll,OLD.stud\_name,OLD.bname,"No fine to be paid",sysdate());**

**-> else**

**-> SET logstmt = "THe fine to be paid is: ";**

**-> SET finallogstmt = (SELECT CONCAT(logstmt,finestr));**

**-> insert into lib\_audit values (OLD.roll,OLD.stud\_name,OLD.bname,finallogstmt,sysdate());**

**-> end if;**

**-> END;**

**-> //**

**Query OK, 0 rows affected (0.12 sec)**

**mysql> CREATE TRIGGER after\_library\_delete AFTER DELETE ON library**

**-> FOR EACH ROW**

**-> BEGIN**

**-> insert into lib\_audit values (OLD.roll,OLD.stud\_name,OLD.bname,"The book was successfully returned",sysdate());**

**-> END;**

**-> //**

**Query OK, 0 rows affected (0.20 sec)**

**mysql> CREATE TRIGGER before\_library\_update BEFORE UPDATE ON library**

**-> FOR EACH ROW**

**-> BEGIN**

**-> declare issuedays int;**

**-> declare fine int;**

**-> declare logstmt varchar(100);**

**-> declare finestr varchar(100);**

**-> declare finallogstmt varchar(200);**

**-> SET issuedays = (select datediff(sysdate(),OLD.doi));**

**-> SET fine = 10\*(issuedays-15);**

**-> SET finestr = (select CONVERT(fine, char(100)));**

**-> if issuedays < 15 then**

**-> insert into lib\_audit values (OLD.roll,OLD.stud\_name,OLD.bname,"No fine to be paid",sysdate());**

**-> else**

**-> SET logstmt = "The fine to be paid is: ";**

**-> SET finallogstmt = (SELECT CONCAT(logstmt,finestr));**

**-> insert into lib\_audit values (OLD.roll,OLD.stud\_name,OLD.bname,finallogstmt,sysdate());**

**-> end if;**

**-> END;**

**-> //**

**Query OK, 0 rows affected (0.23 sec)**

**mysql> CREATE TRIGGER after\_library\_update AFTER UPDATE ON library**

**-> FOR EACH ROW**

**-> BEGIN**

**-> insert into lib\_audit values (OLD.roll,OLD.stud\_name,OLD.bname,"The book was successfully reissued",sysdate());**

**-> END;**

**-> //**

**Query OK, 0 rows affected (0.15 sec)**

**mysql> select \* from library;**

**-> //**

**+------+------------+--------------------------+------------+**

**| roll | stud\_name | bname | doi |**

**+------+------------+--------------------------+------------+**

**| 12 | Durvesh | DBMS | 2020-10-02 |**

**| 19 | Pratik | ADS | 2020-09-03 |**

**| 22 | Raj | Agriculture Fundamentals | 2020-09-27 |**

**| 9 | Prathamesh | Economics | 2020-08-01 |**

**| 26 | Tanmay | Mathematics | 2020-09-21 |**

**+------+------------+--------------------------+------------+**

**5 rows in set (0.07 sec)**

**mysql> select \* from lib\_audit;**

**-> //**

**Empty set (0.05 sec)**

**mysql> delimiter ;**

**mysql> insert into library values (12,"Durvesh","CN",'2020-09-17');**

**Query OK, 1 row affected (0.51 sec)**

**mysql> select \* from lib\_audit;**

**+------+-----------+-------+-------------------------------------+------------+**

**| roll | stud\_name | bname | log | timestamp |**

**+------+-----------+-------+-------------------------------------+------------+**

**| 12 | Durvesh | CN | No. of active issues is less than 3 | 2020-10-07 |**

**| 12 | Durvesh | CN | Book successfully issued | 2020-10-07 |**

**+------+-----------+-------+-------------------------------------+------------+**

**2 rows in set (0.00 sec)**

**mysql> update library SET doi='2020-10-07' where roll=26;**

**Query OK, 1 row affected (0.42 sec)**

**Rows matched: 1 Changed: 1 Warnings: 0**

**mysql> select \* from lib\_audit;**

**+------+-----------+-------------+-------------------------------------+------------+**

**| roll | stud\_name | bname | log | timestamp |**

**+------+-----------+-------------+-------------------------------------+------------+**

**| 12 | Durvesh | CN | No. of active issues is less than 3 | 2020-10-07 |**

**| 12 | Durvesh | CN | Book successfully issued | 2020-10-07 |**

**| 26 | Tanmay | Mathematics | The fine to be paid is: 10 | 2020-10-07 |**

**| 26 | Tanmay | Mathematics | The book was successfully reissued | 2020-10-07 |**

**+------+-----------+-------------+-------------------------------------+------------+**

**4 rows in set (0.00 sec)**

**mysql> delete from library where roll=9;**

**Query OK, 1 row affected (0.39 sec)**

**mysql> select \* from lib\_audit;**

**+------+------------+-------------+-------------------------------------+------------+**

**| roll | stud\_name | bname | log | timestamp |**

**+------+------------+-------------+-------------------------------------+------------+**

**| 12 | Durvesh | CN | No. of active issues is less than 3 | 2020-10-07 |**

**| 12 | Durvesh | CN | Book successfully issued | 2020-10-07 |**

**| 26 | Tanmay | Mathematics | The fine to be paid is: 10 | 2020-10-07 |**

**| 26 | Tanmay | Mathematics | The book was successfully reissued | 2020-10-07 |**

**| 9 | Prathamesh | Economics | THe fine to be paid is: 520 | 2020-10-07 |**

**| 9 | Prathamesh | Economics | The book was successfully returned | 2020-10-07 |**

**+------+------------+-------------+-------------------------------------+------------+**

**6 rows in set (0.00 sec)**

**//Output:-**







