mysql> create table library (roll int,stud\_name varchar(30), bname varchar(100), doi date);

Query OK, 0 rows affected (2.27 sec)

mysql> create table lib\_audit (roll int, stud\_name varchar(30), bname varchar(100), log varchar(200), timestamp date);

Query OK, 0 rows affected (0.86 sec)

mysql> insert into library values (12, "Durvesh", "DBMS",'2020-10-2')

;

Query OK, 1 row affected (0.11 sec)

mysql> insert into library values (19, "Pratik", "ADS",'2020-09-3')

;

Query OK, 1 row affected (0.39 sec)

mysql> insert into library values (22, "Raj", "Agriculture Fundamentals",'2020-09-27');

Query OK, 1 row affected (0.34 sec)

mysql> insert into library values (26, "Tanmay", "Mathematics",'2020-09-21');

Query OK, 1 row affected (0.12 sec)

mysql> insert into library values (9, "Prathamesh", "Economics",'2020-08-1');

Query OK, 1 row affected (0.37 sec)

**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 (0.56 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 (0.47 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 (0.44 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 (0.98 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 (0.54 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 (0.49 sec)**

**mysql> \quit**