ASSIGNMENT NO:4B

a) Write a trigger to not allow librarian to issue books on Saturday & Sunday

mysql> drop trigger if exists t1;

->

-> create trigger t1

-> before insert on borrowedBy

-> for each row

->

-> begin

->

-> if (select weekDay(issue\_date) from borrowedBy where weekDay(issue\_date) in (5,6)) then

-> signal SQLSTATE '02000' SET MESSAGE\_TEXT='YOU CAN NOT INSERT ON SATURDAY AND SUNDAY';

-> end if;

-> end;

-> //

Query OK, 0 rows affected (0.00 sec)

Query OK, 0 rows affected (0.09 sec)

mysql> insert into borrowedBy values(1011,'2018-09-29','2018-07-14',10,5,2);

ERROR 1643 (02000): YOU CAN NOT INSERT ON SATURDAY AND SUNDAY

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b) Write a trigger to restrict students from entering lowercase values or extra spaces in their names .If entered, convert the same to Uppercase and also trim extra spaces.

mysql> drop trigger if exists t2;

-> $

Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> create trigger t2

-> before insert on student

-> for each row

-> begin

-> set NEW.sname=UPPER(NEW.sname);

-> set NEW.sname=TRIM(NEW.sname);

-> end $

Query OK, 0 rows affected (0.00 sec)

mysql> delimiter ;

mysql> select \* from student;

+--------+--------+---------+--------+------+

| prn\_no | sname | roll\_no | branch | year |

+--------+--------+---------+--------+------+

| 66 | rutvik | 1 | IT | 3 |

| 69 | suyash | 2 | COMP | 4 |

| 75 | rajat | 5 | COMP | 3 |

| 79 | vishal | 3 | MECH | 4 |

| 81 | neeraj | 4 | IT | 2 |

| 89 | dilip | 6 | ENTC | 1 |

+--------+--------+---------+--------+------+

6 rows in set (0.00 sec)

mysql> select \* from student;

+--------+--------+---------+--------+------+

| prn\_no | sname | roll\_no | branch | year |

+--------+--------+---------+--------+------+

| 66 | rutvik | 1 | IT | 3 |

| 69 | suyash | 2 | COMP | 4 |

| 75 | rajat | 5 | COMP | 3 |

| 79 | vishal | 3 | MECH | 4 |

| 81 | neeraj | 4 | IT | 2 |

| 89 | dilip | 6 | ENTC | 1 |

| 117 | AAYUSH | 7 | MECH | 4 |

+--------+--------+---------+--------+------+

7 rows in set (0.00 sec)

mysql> insert into student values(118,' test',8,'IT',1);

Query OK, 1 row affected (0.05 sec)

mysql> select \* from student;

+--------+--------+---------+--------+------+

| prn\_no | sname | roll\_no | branch | year |

+--------+--------+---------+--------+------+

| 66 | rutvik | 1 | IT | 3 |

| 69 | suyash | 2 | COMP | 4 |

| 79 | vishal | 3 | MECH | 4 |

| 81 | neeraj | 4 | IT | 2 |

| 89 | dilip | 6 | ENTC | 1 |

| 117 | AAYUSH | 7 | MECH | 4 |

| 118 | TEST | 8 | IT | 1 | |

+--------+--------+---------+--------+------+

8 rows in set (0.00 sec)

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c) Write a trigger to create a copy of one table after insertion.

#create table new IF NOT EXISTS like student;

mysql> delimiter //

mysql> drop trigger if exists t3;

-> create trigger t3

-> after insert on student

-> for each row

-> begin

-> insert into new SELECT NEW.prn\_no, NEW.sname,NEW.roll\_no, NEW.branch,NEW.year

-> FROM student s where s.prn\_no=NEW.prn\_no ;

->

-> end//

Query OK, 0 rows affected (0.06 sec)

Query OK, 0 rows affected (0.13 sec)

mysql> insert into student values(5924,'test1',50,'IT',2)//

Query OK, 1 row affected (0.04 sec)

mysql> select \* from new//

+--------+-------+---------+--------+------+

| prn\_no | sname | roll\_no | branch | year |

+--------+-------+---------+--------+------+

| 5924| YASH | 50 | IT | 2 |

+--------+-------+---------+--------+------+

1 row in set (0.00 sec)

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d) Write a trigger to implement on delete cascade referential integrity for any of above tables.

mysql> delimiter //

mysql> drop trigger if exists t4;

->

-> create trigger t4

-> before delete on publisher

-> for each row

-> begin

->

-> DELETE FROM book

-> where book.p\_id =(select p\_id from publisher where p\_id = OLD.p\_id);

->

-> end//

Query OK, 0 rows affected, 1 warning (0.00 sec)

Query OK, 0 rows affected (0.08 sec)

mysql> select \* from book;

+---------+--------------------+---------+-------+----------+------+------+

| ISBN\_no | title | edition | price | quantity | p\_id | a\_id |

+---------+--------------------+---------+-------+----------+------+------+

| 1 | Let us C | 2 | 20 | 15 | 4 | 1 |

| 2 | Programming in oop | 5 | 67.8 | 10 | 3 | 2 |

| 3 | Harry Potter | 1 | 100 | 7 | 3 | 2 |

| 4 | Chota Bheem | 8 | 109 | 15 | 1 | 4 |

| 5 | oldone | 6 | 115 | 2 | 2 | 3 |

+---------+--------------------+---------+-------+----------+------+------+

5 rows in set (0.00 sec)

mysql> select \* from publisher//

+------+--------+---------+--------------+

| p\_id | pname | pcity | pemail |

+------+--------+---------+--------------+

| 1 | rajat | akola | r1@gmail.com |

| 2 | vishal | solapur | s1@gmail.com |

| 3 | abhay | AP | ap@gmail.com |

| 4 | madhur | mumbai | m@gmail.com |

+------+--------+---------+--------------+

4 rows in set (0.00 sec)

mysql> delete from publisher where p\_id=3;

-> //

Query OK, 1 row affected (0.04 sec)

mysql> select \* from book//

+---------+---------------+---------+-------+----------+------+------+

| ISBN\_no | title | edition | price | quantity | p\_id | a\_id |

+---------+---------------+---------+-------+----------+------+------+

| 1 | Let us C | 2 | 20 | 15 | 4 | 1 |

| 4 | Chota Bheem | 8 | 109 | 15 | 1 | 4 |

| 5 | oldone | 6 | 115 | 2 | 2 | 3 |

+---------+---------------+---------+-------+----------+------+------+

3 rows in set (0.00 sec)

-----------------------------------------------------------------

e) Write a trigger to create a copy of old and new values for student's year after update operation.

mysql> delimiter //

mysql> drop trigger if exists t5;

-> create trigger t5

-> after update on student

-> for each row

-> begin

-> if OLD.year != NEW.year

-> then

->

-> insert into cpy values(OLD.year,NEW.year,OLD.prn\_no);

->

-> end if;

-> end//

Query OK, 0 rows affected (0.05 sec)

Query OK, 0 rows affected (0.13 sec)

mysql> update student

-> set year=4 where prn\_no=5924//Query OK, 0 rows affected (0.01 sec)

Rows matched: 1 Changed: 0 Warnings: 0

mysql> select \* from cpy//

+----------+----------+--------+

| old\_year | new\_year | prn\_no |

+----------+----------+--------+

| 2 | 4 | 5924|

+----------+----------+--------+

1 row in set (0.00 sec)

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