Indian Institute of Information Technology Chittoor, Sri City

Course: **Database Management System**

Duration: **120 Minutes**

Roll No.:_____**RAHUL VARMA**_____

Name: _____S20200010212_____

INSTRUCTIONS:

1. Read all questions carefully and answer them in the space provided (**Strictly within the box / space provided**).
2. Convert this document to **pdf (portable document format)** after filling the boxes.
3. The name of the pdf must be your **Roll no.** Upload single pdf file.
4. Crop only required part in the screenshot. Don't paste the entire screenshot unnecessarily.

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1. Consider the LibGen website where the administrators promote their books by displaying the front page. Create a table (name:LibGen_your Roll Number) with the following constraints

   Id → NOT NULL AND UNIQUE

   type → varchar

   cost → int and cost >0

   Promoted → True (fixed)

   Create another new table called "Summary" with three columns:

   type→ category name

   priceMin→ the lowest price for all promoted books and

   priceMax→ highest price for all promoted books

   The "promoted" attribute on a promoted book is set to True.

   Create a trigger so that, when a tuple from the "Summary" table is deleted, all Books from the corresponding category have their "promoted" attribute set to False. For example, if the entry in "Summary" for category "Novel" is deleted, all entries in "Books" with category "Novel" have their "promoted" attribute set to False.

Insert table data here

```
mysql> create table LibGen_S20200010212(
    ->     id int unique not null,
    ->     type varchar(40),
    ->     COST INT check (cost>0),
    ->     promoted varchar(10) default "true");
Query OK, 0 rows affected (0.04 sec)

mysql> select * from libgen_S20200010212;
+----+---------+------+----------+
| id | type    | COST | promoted |
+----+---------+------+----------+
|  1 | Novel   | 1000 | true     |
|  2 | Fiction | 2000 | true     |
|  3 | science | 1500 | true     |
|  4 | Fiction |  800 | true     |
|  5 | Fables  | 1000 | true     |
|  6 | Novel   | 3000 | true     |
|  7 | Fiction | 1200 | true     |
|  8 | tales   | 1800 | true     |
|  9 | Novel   | 5000 | true     |
| 10 | Fiction |  500 | true     |
+----+---------+------+----------+
10 rows in set (0.00 sec)
```

```
mysql> create table Summary ( type varchar(40) , priceMin int , priceMax int);
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> insert into summary values("Novel",5000,10000);
Query OK, 1 row affected (0.01 sec)

mysql> insert into summary values("Fiction",3000,8000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into summary values("science",100000,20000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into summary values("tales",100,5000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into summary values("Fantasy",1100,16000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into summary values("story",2000,20000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into summary values("Tales",2000,38000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into summary values("Adventure",12000,30000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into summary values("Finance",5000,10000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into summary values("fiction",5000,10000);
Query OK, 1 row affected (0.00 sec)
```

Program:

```
mysql>
mysql> delimiter //
mysql> create trigger trig
    -> after delete
    -> on Summary for each row
    -> begin
    -> declare del_type varchar(40);
    -> set del_type = old.type;
    -> update LibGen_S20200010212 set promoted = "False" where type = del_type;
    -> end //
Query OK, 0 rows affected (0.01 sec)

mysql> delimiter ;
```

Put your screenshot here

Results:

```
mysql> delimiter ;
mysql> delete from summary where type ="novel";
Query OK, 1 row affected (0.03 sec)

mysql> select * from libgen_S20200010212;
+----+---------+------+----------+
| id | type    | COST | promoted |
+----+---------+------+----------+
|  1 | Novel   | 1000 | False    |
|  2 | Fiction | 2000 | true     |
|  3 | science | 1500 | true     |
|  4 | Fiction |  800 | true     |
|  5 | Fables  | 1000 | true     |
|  6 | Novel   | 3000 | False    |
|  7 | Fiction | 1200 | true     |
|  8 | tales   | 1800 | true     |
|  9 | Novel   | 5000 | False    |
| 10 | Fiction |  500 | true     |
+----+---------+------+----------+
10 rows in set (0.01 sec)

mysql>
```

Any Observations:

After deleting from summary table
By creating trigger it is also getting delted in lib_gen table
With out any extra commands
I delted novel in summary
Then in lib_gen all novel type became false

2. Assume the below schema for customer data belonging to BSNL mobile company.
    CUSTOMER (ID, Name, age, MobileNum, Plan)
    BASEPLAN (Code, ConnectionFee, PricePerSecond)
    PHONECALL (ID, Date, Time, CalledNum, Seconds)
    BILL (ID, Month, Year, amount)

    Create a trigger that updates the customer's bill after every phone call.

    Insert screenshots of table data in the space provided.

```
mysql> create table baseplan(code int, connectionfee int, pricepersecond int);
Query OK, 0 rows affected (0.03 sec)

mysql> create table phonecall(id int, date_num date, time varchar(30), callednum int, seconds i
Query OK, 0 rows affected (0.02 sec)

mysql> create table bill(id int,month int,year int, amount int);
Query OK, 0 rows affected (0.03 sec)

mysql> create table customer(id int ,name varchar(30), age int, mobilenum int, plan varchar(30)
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> insert into customer values(1,"rahul",18,99083434,"unlimited calls");
Query OK, 1 row affected (0.01 sec)

mysql> insert into customer values(2,"varma",20,76834055,"unlimited net");
Query OK, 1 row affected (0.00 sec)

mysql> insert into customer values(3,"sai",34,93803829,"unlimited net");
Query OK, 1 row affected (0.00 sec)

mysql> insert into customer values(4,"ashok",23,95903950,"unlimited calls");
Query OK, 1 row affected (0.00 sec)

mysql> insert into customer values(5,"chotu",54,99083434,"unlimited calls");
Query OK, 1 row affected (0.00 sec)
```

Place CUSTOMER Table here
Note: insert at least 5 rows

```
mysql> insert into BASEPLAN values(1,200,2);
Query OK, 1 row affected (0.01 sec)

mysql> insert into BASEPLAN values(2,500,3);
Query OK, 1 row affected (0.00 sec)

mysql> insert into BASEPLAN values(3,29,4);
Query OK, 1 row affected (0.00 sec)

mysql> insert into BASEPLAN values(4,45,6);
Query OK, 1 row affected (0.00 sec)

mysql> insert into BASEPLAN values(5,34,5);
Query OK, 1 row affected (0.01 sec)
```

Place BASEPLAN table here
Note: insert at least 5 rows

```
mysql>
mysql> insert into phonecall values(1,'2021-1-1','12:30', 93487388,43);
Query OK, 1 row affected (0.01 sec)

mysql> insert into phonecall values(2,'2020-7-1','6:30', 93487388,89);
Query OK, 1 row affected (0.00 sec)

mysql> insert into phonecall values(3,'2021-8-5','7:30', 93487388,56);
Query OK, 1 row affected (0.00 sec)

mysql> insert into phonecall values(4,'2021-1-9','2:30', 93487388,78);
Query OK, 1 row affected (0.00 sec)

mysql> insert into phonecall values(5,'2021-6-1','1:30', 93487388,67);
Query OK, 1 row affected (0.00 sec)
```

Place PHONECALL Table here
Note: insert at least 5 rows

```
mysql>
mysql>
mysql> insert into bill values(1,5,2000,56);
Query OK, 1 row affected (0.02 sec)

mysql> insert into bill values(2,9,2021,67);
Query OK, 1 row affected (0.00 sec)

mysql> insert into bill values(3,6,2021,89);
Query OK, 1 row affected (0.00 sec)

mysql> insert into bill values(4,11,2021,56);
Query OK, 1 row affected (0.00 sec)

mysql> insert into bill values(5,7,2021,43);
Query OK, 1 row affected (0.01 sec)
```

Place BILL Table here

Note: insert at least 5 rows

Program:

```
mysql> DELIMITER /
mysql> CREATE TRIGGER AFTER_PHONE
    -> BEFORE INSERT
    -> on phonecall for each row
    -> begin
    ->
    -> declare count int;
    ->
    -> select count(*) into count from baseplan where id=new.id;
    ->
    -> if count >0 then
    -> update baseplan set amount = amount+(new.seconds*10);
    -> else
    -> insert into baseplan(id,amount) values (new.id,new.seconds);
    -> end if;
    -> end /
Query OK, 0 rows affected (0.01 sec)
```

Place your

program here

Result:

```
mysql> select * from bill;
+------+-------+------+--------+
| id   | month | year | amount |
+------+-------+------+--------+
|    1 |     5 | 2000 |     56 |
|    2 |     9 | 2021 |     67 |
|    3 |     6 | 2021 |     89 |
|    4 |    11 | 2021 |     56 |
|    5 |     7 | 2021 |     43 |
+------+-------+------+--------+
5 rows in set (0.00 sec)

mysql>
```

Place your result here

Any Observations/Justification:

Write your observation here