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PANEL :- D

ROLL NO. :- PD33 (D2)

ASSIGNMET NO. – 6

Consider the following relational schema:

BOOK (Isbn, Title, SoldCopies)

WRITING (Isbn, Name)

AUTHOR (Name, SoldCopies)

Define a set of triggers for keeping SoldCopies in AUTHOR updated with respect to:

- updates on SoldCopies in BOOK
- insertion of new tuples in the WRITING relation

```
MySQL  localhost:33060+ ssl  assn6  SQL > select * from author;
+----------+--------------+
| authname | a_soldcopies |
+----------+--------------+
| Raju     |           15 |
| Ram      |            3 |
| Raman    |            5 |
| Rohit    |           15 |
| Tuyash   |           20 |
+----------+--------------+
5 rows in set (0.0010 sec)
MySQL  localhost:33060+ ssl  assn6  SQL > select * from book;
+------+-------+------------+
| isbn | title | soldcopies |
+------+-------+------------+
|    1 | CN    |          5 |
|    2 | DBMS  |         15 |
|    3 | SMD   |          3 |
|    4 | IOT   |         10 |
|    5 | MMC   |         20 |
+------+-------+------------+
5 rows in set (0.2538 sec)
```

```
MySQL  localhost:33060+ ssl  assn6  SQL > delimiter //
MySQL  localhost:33060+ ssl  assn6  SQL > create trigger t1
                                       -> after update on book
                                       -> for each row
                                       -> begin
                                       -> update author
                                       -> set a_soldcopies = a_soldcopies + new.soldcopies - old.soldcopies
                                       -> where authname in (select authname  from writing where isbn = new.isbn);
                                       -> end //
Query OK, 0 rows affected (0.3727 sec)
```

```
MySQL  localhost:33060+ ssl  assn6  SQL > update book set soldcopies = 10 where isbn = 4;
Query OK, 1 row affected (0.0897 sec)

Rows matched: 1  Changed: 1  Warnings: 0
MySQL  localhost:33060+ ssl  assn6  SQL > select * from author;
+----------+--------------+
| authname | a_soldcopies |
+----------+--------------+
| Raju     |           15 |
| Ram      |            3 |
| Raman    |            5 |
| Rohit    |           15 |
+----------+--------------+
4 rows in set (0.0802 sec)
```

```
MySQL  localhost:33060+ ssl  assn6  SQL > create trigger t2
                                       -> after insert on writing
                                       -> for each row
                                       -> begin
                                       -> update author
                                       ->  set a_soldcopies = a_soldcopies +
                                       ->  (select soldCopies
                                       ->  from book
                                       -> where isbn = new.isbn)
                                       -> where authname = new.authname;
                                       -> end//
Query OK, 0 rows affected (0.7422 sec)
```

```
MySQL  localhost:33060+ ssl  assn6  SQL > insert into writing values(5,'Tuyash');
Query OK, 1 row affected (1.7921 sec)
MySQL  localhost:33060+ ssl  assn6  SQL > select * from author;
+----------+--------------+
| authname | a_soldcopies |
+----------+--------------+
| Raju     |           15 |
| Ram      |            3 |
| Raman    |            5 |
| Rohit    |           15 |
| Tuyash   |           40 |
+----------+--------------+
5 rows in set (0.0008 sec)
```

Use a cursor to calculate compound interest for each customer and insert customer id and simple interest in another table named TEMPLIST.

Customer(cust_id, Prinicipal_amount, Rate_of_interest, No. of Years)

```
MySQL  localhost:33060+ ssl  assn6  SQL > select * from customer;
+---------+--------+------+-------------+
| cust_id | Amount | rate | no_of_years |
+---------+--------+------+-------------+
|       1 |  10000 |    8 |           2 |
|       2 |  25000 |    6 |           5 |
|       3 |   3000 |    7 |           4 |
+---------+--------+------+-------------+
3 rows in set (0.0562 sec)
```

```
MySQL  localhost:33060+ ssl  assn6  SQL > create procedure calculate_simpleinterest()
                                       -> begin
                                       -> declare v_interest float;
                                       -> declare v_cid int;
                                       -> declare p int;
                                       -> declare r int;
                                       -> declare y int;
                                       -> declare done int default 0 ;
                                       -> declare c1 cursor for select * from customer;
                                       -> declare continue handler for not found set done = 1;
                                       -> open c1;
                                       -> repeat
                                       -> fetch c1 into v_cid,p,r,y;
                                       -> set v_interest = p*r*y/100;
                                       -> if done = 0 then
                                       -> insert into temp_list values(v_cid,v_interest);
                                       -> end if;
                                       -> until done end repeat;
                                       -> close c1;
                                       -> end$
Query OK, 0 rows affected (0.8071 sec)
```

```
MySQL  localhost:33060+ ssl  assn6  SQL > select * from temp_list;
+---------+-----------------+
| cust_id | simple_interest |
+---------+-----------------+
|       1 |            1600 |
|       2 |            7500 |
|       3 |             840 |
+---------+-----------------+
3 rows in set (0.0008 sec)
```