Academic Year: 2022-23
Semester: III
Class / Branch:SE(IT)
Subject: SQL Lab
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Experiment No:6

Aim: To study and implement Views and Triggers

Creating triggers in Mysql

Dropping triggers in Mysql:

```
mysql> create trigger AFTER_INSERT after insert on professor for each row insert into student set name='ABC';
Query OK, 0 rows affected (0.11 sec)

mysql> select * from student;
+---------+------------+
| name    | department |
+---------+------------+
| prashil | IT         |
| pravin  | IT         |
| pankaj  | IT         |
+---------+------------+
3 rows in set (0.00 sec)

mysql> select * from professor;
+------+---------+------------+--------+
| Id   | name    | department | salary |
+------+---------+------------+--------+
| 1    | mahesh  | IT         | 20000  |
| 2    | suresh  | IT         | 20000  |
| 3    | jayesh  | comp       | 25000  |
| 4    | brijesh | comp       | 25000  |
| 5    | nitin   | mech       | 30000  |
| 6    | jatin   | civil      | 40000  |
+------+---------+------------+--------+
6 rows in set (0.00 sec)

mysql> insert into professor values(7,'kripa','ETRX',50000);
Query OK, 1 row affected (0.07 sec)

mysql> select * from student;
+---------+------------+
| name    | department |
+---------+------------+
| prashil | IT         |
| pravin  | IT         |
| pankaj  | IT         |
| ABC     | NULL       |
+---------+------------+
4 rows in set (0.01 sec)
```

drop trigger trigger_name

Views:

Creating view comp from original table IT

```
mysql> select * from IT;
+---------+-------+---------+
| name    | phone | address |
+---------+-------+---------+
| neha    | 11    | thane   |
| brinal  | 22    | vasai   |
| archana | 33    | thane   |
+---------+-------+---------+
3 rows in set (0.00 sec)

mysql> create view comp(name,address) as select name,address from IT where phone
=11;
Query OK, 0 rows affected (0.07 sec)

mysql> select * from comp;
+------+---------+
| name | address |
+------+---------+
| neha | thane   |
+------+---------+
1 row in set (0.00 sec)
```

adding one more column to the view

```
mysql> alter view comp(name,address,phone) as select name,address,phone from IT where address='thane';
Query OK, 0 rows affected (0.05 sec)

mysql> select * from comp;
+---------+---------+-------+
| name    | address | phone |
+---------+---------+-------+
| neha    | thane   | 11    |
| archana | thane   | 33    |
+---------+---------+-------+
2 rows in set (0.00 sec)

mysql>
```

Updating original table IT only and the result is getting reflected into original table as well as into views

```
mysql> update IT set name='mudra' where phone=11;
Query OK, 1 row affected (0.08 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from IT;
+---------+-------+---------+
| name    | phone | address |
+---------+-------+---------+
| mudra   | 11    | thane   |
| brinal  | 22    | vasai   |
| archana | 33    | thane   |
+---------+-------+---------+
3 rows in set (0.00 sec)

mysql> select * from comp;
+---------+---------+-------+
| name    | address | phone |
+---------+---------+-------+
| mudra   | thane   | 11    |
| archana | thane   | 33    |
+---------+---------+-------+
2 rows in set (0.01 sec)

mysql>
```

Applying aggregate functions to the views

```
mysql> select min(phone) as new_phone from comp;
+------------+
| new_phone |
+------------+
| 11         |
+------------+
1 row in set (0.02 sec)

mysql>
```

```
mysql> drop view comp;
Query OK, 0 rows affected (0.00 sec)

mysql> select * from comp;
ERROR 1146 (42S02): Table 'neha.comp' doesn't exist
mysql>
```

Conclusion: In this experiment we studied about TCL commands. TCL stands for Transaction Control Language. The TCL commands are used to perform transactions on database. COMMIT command is used to save the transactions made, ROLLBACK command is used to skip the DML commands and come back to the start of the database & SAVEPOINT command is used to save the transaction to rollback to the point where necessary.