Expt. 6 10 September 2012

**Triggers in SQL**

**Aim:**

To study triggers in SQL.

**Theory:**

A trigger is a SQL block structure which is fired when a DML statement like insert, delete, update is executed on a database table. A trigger is triggered automatically when an associated DML statement is executed. Triggers are used to enforce data integrity and business rules such as automatically updating summary data. It allows cascade delete or update operations. Triggers prevent incorrect, unauthorized or inconsistent changes to data.

The syntax for creating a trigger is:

CREATE TRIGGER trigger\_name

ON table\_name

FOR [INSERT|UPDATE|DELETE] AS

IF UPDATE (column\_name)

[{AND|OR} UPDATE (column\_name)...]

{sql\_statements}

**Queries:**

mysql> create database trig;

Query OK, 1 row affected (0.02 sec)

mysql> use trig;

Database changed

mysql> create table t1(a1 int);

Query OK, 0 rows affected (0.09 sec)

mysql> create table t2(a2 int);

Query OK, 0 rows affected (0.06 sec)

mysql> insert into t1 values(8);

Query OK, 0 rows affected (0.05 sec)

mysql> insert into t1 values(16);

Query OK, 0 rows affected (0.05 sec)

mysql> select \* from t1;

+----+

| a1 |

+----+

| 8 |

| 16 |

+----+

2 rows in set (0.00 sec)

mysql> select \* from t2;

+----+

| a3 |

+----+

0 rows in set (0.00 sec)

mysql> delimiter /

mysql> create trigger trig1 BEFORE INSERT

-> on t1 FOR EACH ROW

-> BEGIN

-> insert into t2 values (NEW.a1);

-> END;

-> /

Query OK, 0 rows affected (0.11 sec)

mysql> delimiter ;

mysql> insert into t1 values(32);

mysql> select \* from t1;

+----+

| a1 |

+----+

| 8 |

| 16 |

| 32 |

+----+

1 row in set (0.00 sec)

mysql> select \* from t2;

+----+

| a2 |

+----+

| 32 |

+----+

1 row in set (0.00 sec)

**Conclusion:**

Views in SQL were studied and given queries were solved.