

Assignment No 7

Name : Shreya Phalke

Roll No: 89

Batch:B4

Title :

Trigger Type

1. BEFORE INSERT
2. AFTER INSERT
3. BEFORE UPDATE
4. AFTER UPDATE
5. BEFORE DELETE
6. AFTER DELETE

```
Command Prompt - mysql -u + - x
Query OK, 0 rows affected (0.01 sec)

mysql> CREATE TABLE log_table (
->     log_id INT AUTO_INCREMENT PRIMARY KEY,
->     action_time TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
->     action_performed VARCHAR(50),
->     table_affected VARCHAR(50),
->     details TEXT
-> );
Query OK, 0 rows affected (0.03 sec)

mysql> DELIMITER $$
mysql>
mysql> CREATE TRIGGER before_insert_club
-> BEFORE INSERT ON club
-> FOR EACH ROW
-> BEGIN
->     IF NEW.total_members IS NULL THEN
->         SET NEW.total_members = 0;
->     END IF;
->
->     INSERT INTO log_table (action_performed, table_affected, details)
->     VALUES ('BEFORE INSERT', 'club', CONCAT('Club "', NEW.club_name, '" is being insert
ed. '));
-> END $$
Query OK, 0 rows affected (0.02 sec)
```

```

mysql>
mysql>
mysql> DELIMITER $$
mysql>
mysql> CREATE TRIGGER before_delete_club
-> BEFORE DELETE ON club
-> FOR EACH ROW
-> BEGIN
->     DECLARE member_count INT;
->     SELECT COUNT(*) INTO member_count FROM member WHERE member_id = OLD.club_id;
->
->     IF member_count > 0 THEN
->         SIGNAL SQLSTATE '45000'
->         SET MESSAGE_TEXT = 'Cannot delete club with members.';
->     END IF;
->
->     INSERT INTO log_table (action_performed, table_affected, details)
->     VALUES ('BEFORE DELETE', 'club', CONCAT('Attempt to delete club "', OLD.club_name,
'"'));
-> END $$
Query OK, 0 rows affected (0.03 sec)

mysql>
mysql> DELIMITER ;
mysql>

```

```

mysql> DELIMITER $$
mysql>
mysql> CREATE TRIGGER after_delete_member
-> AFTER DELETE ON member
-> FOR EACH ROW
-> BEGIN
->     INSERT INTO log_table (action_performed, table_affected, details)
->     VALUES ('AFTER DELETE', 'member', CONCAT('Member "', OLD.member_name, '" deleted'));
-> END $$
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql> DELIMITER ;
mysql>
mysql> SELECT * FROM log_table ORDER BY action_time DESC;
Empty set (0.01 sec)

mysql> INSERT INTO club (club_name, club_desc, admin_id)
-> VALUES ('Tech Club', 'A club for tech enthusiasts', 101);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails ('college`.`club`, CONSTRAINT `fk1` FOREIGN KEY (`admin_id`) REFERENCES `member` (`member_id`))
mysql> INSERT INTO club (club_name, club_desc, admin_id)
-> VALUES ('Tech Club', 'A club for tech enthusiasts', 3);
Query OK, 1 row affected (0.01 sec)

```

```

mysql> UPDATE member
-> SET member_name = 'Srushti Mane'
-> WHERE member_id = 1;
Query OK, 1 row affected (0.03 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> UPDATE club
-> SET total_members = 15
-> WHERE club_id = 1;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

```

```
Command Prompt - mysql -u x + v
mysql> UPDATE member
-> SET member_name = 'Srushti Mane'
-> WHERE member_id = 1;
Query OK, 1 row affected (0.03 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> UPDATE club
-> SET total_members = 15
-> WHERE club_id = 1;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> SELECT * FROM log_table ORDER BY action_time DESC;
+-----+-----+-----+-----+-----+
| log_id | action_time | action_performed | table_affected | details |
+-----+-----+-----+-----+-----+
| 8 | 2025-03-28 13:01:59 | AFTER UPDATE | club | Club "Ged IT Club" updated. Changes: Total Members: 0 ? 15 |
| 7 | 2025-03-28 13:01:48 | BEFORE UPDATE | member | Updating member "Shreya Phalke" to "Srushti Mane" |
| 5 | 2025-03-28 13:01:18 | BEFORE INSERT | club | Club "AI Club" is being inserted. |
| 6 | 2025-03-28 13:01:18 | AFTER INSERT | club | Club "AI Club" inserted with ID 8 |
| 2 | 2025-03-28 13:00:52 | BEFORE INSERT | club | Club "Tech Club" is being inserted. |
| 3 | 2025-03-28 13:00:52 | AFTER INSERT | club | Club "Tech Club" inserted with ID 6 |
+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> DELETE FROM club WHERE club_id = 1;
ERROR 1644 (45000): Cannot delete club with members.
mysql> DELETE FROM member WHERE member_id = 2;
ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails ('college'.club', CONSTRAINT 'fk1' FOREIGN KEY ('admin_id') REFERE
NCES 'member' ('member_id'))
mysql> SELECT * FROM log_table ORDER BY action_time DESC;
+-----+-----+-----+-----+-----+
| log_id | action_time | action_performed | table_affected | details |
+-----+-----+-----+-----+-----+
| 8 | 2025-03-28 13:01:59 | AFTER UPDATE | club | Club "Ged IT Club" updated. Changes: Total Members: 0 ? 15 |
| 7 | 2025-03-28 13:01:48 | BEFORE UPDATE | member | Updating member "Shreya Phalke" to "Srushti Mane" |
| 5 | 2025-03-28 13:01:18 | BEFORE INSERT | club | Club "AI Club" is being inserted. |
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| 3 | 2025-03-28 13:00:52 | AFTER INSERT | club | Club "Tech Club" inserted with ID 6 |
+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql> |
```