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**Practical 14: Triggers**

**Objective:**  Study & Implementation of Rollback, Commit, Savepoint.

1. **Trigger**

A trigger is a stored procedure in database which automatically invokes whenever a special event in the database occurs. For example, a trigger can be invoked when a row is inserted into a specified table or when certain table columns are being updated.

**Syntax:**

create trigger [trigger\_name]

[before | after]

{insert | update | delete}

on [table\_name]

[for each row]

[trigger\_body]

**Explanation of syntax:**

create trigger [trigger\_name]: Creates or replaces an existing trigger with the trigger\_name.

[before | after]: This specifies when the trigger will be executed.

{insert | update | delete}: This specifies the DML operation.

on [table\_name]: This specifies the name of the table associated with the trigger.

[for each row]: This specifies a row-level trigger, i.e., the trigger will be executed for each row being affected.

[trigger\_body]: This provides the operation to be performed as trigger is fired

mysql> CREATE TABLE people (age INT, name varchar(150));

Query OK, 0 rows affected (2.10 sec)

mysql> desc people;

+-------+--------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+--------------+------+-----+---------+-------+

| age | int | YES | | NULL | |

| name | varchar(150) | YES | | NULL | |

+-------+--------------+------+-----+---------+-------+

2 rows in set (0.03 sec)

mysql> delimiter //

mysql> CREATE TRIGGER agecheck BEFORE INSERT ON people FOR EACH ROW IF NEW.age < 0

-> THEN SET NEW.age = 0; END IF;//

Query OK, 0 rows affected (0.29 sec)

mysql> INSERT INTO people VALUES (-20, 'Sid'), (30, 'Josh'), (1, 'Deepankar'), (-34, 'Zayn MAlik');//

Query OK, 4 rows affected (0.13 sec)

Records: 4 Duplicates: 0 Warnings: 0

mysql>

mysql>

mysql>

mysql> select\* from people;

-> //

+------+------------+

| age | name |

+------+------------+

| 0 | Sid |

| 30 | Josh |

| 1 | Deepankar |

| 0 | Zayn MAlik |

+------+------------+

4 rows in set (0.00 sec)

mysql>