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MySQL 8.0 Command Line Cli × + v
+-----+-----+-----+
|      53 | priyanshu | charholi |
|      55 | sanjyot  | kharadi  |
|      31 | sawpnil  | kharadi  |
+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> create table student_log ( log_id int auto_increment primary key, roll_no int, name varchar(90), old_address varchar(87), new_address varchar(90), ac
tion_type varchar(80), action_time timestamp default current_timestamp );
Query OK, 0 rows affected (0.05 sec)

mysql> delimiter //
mysql> create trigger before_insert_student before insert on student for each row
-> begin
-> if new.name='' then signal sqlstate '45000'
-> set message_text='name cannot be empty';
-> end if;
-> end;
-> //
Query OK, 0 rows affected (0.02 sec)

mysql> delimiter;
-> delimiter //
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'd
elimiter;delimiter' at line 1
mysql> delimiter //
mysql> create trigger after_insert_student after insert on student for each row
-> begin
-> insert into student_log(roll_no, name, new_address, action_type)
-> values(new.roll_no, new.name, new.address, 'insert');
-> end;
-> //
Query OK, 0 rows affected (0.01 sec)

mysql> delimiter //
mysql> create trigger before_update_student
-> before uodate on student for each row
-> begin
-> if new.address is null then
-> signal sqlstate '45000'
-> set message_text='address cannot be null';
-> end if;
-> end;
-> //
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mysql> delimiter //  
mysql> create trigger before_update_student  
-> before update on student for each row  
-> begin  
-> if new.address is null then  
-> signal sqlstate '45000'  
-> set message_text='address cannot be null';  
-> end if;  
-> end;  
-> //  
Query OK, 0 rows affected (0.01 sec)  
  
mysql> delimiter //  
mysql> create trigger after_update_student  
-> after update on student for each row  
-> begin  
-> insert into student_log ( roll_no, name, old_address, new_address, action_type)  
-> values(new.roll_no, new.name, old.address, new.address, 'update');  
-> end;  
-> //  
Query OK, 0 rows affected (0.01 sec)
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mysql> delimiter //
mysql> create trigger before_delete_student before delete on student for each row
-> begin
-> if old.address = 'charholi' then signal sqlstate '45000'
-> set message_text = 'cannot delete student from charholi';
-> end if;
-> end;
-> //
Query OK, 0 rows affected (0.03 sec)

mysql> delimiter //
mysql> create trigger after_delete_student
-> after delete on student for each row
-> begin
-> insert into student_log(roll_no, name, old_address, action_type)
-> values(old.roll_no, old.name, old.address, 'delete');
-> end;
-> //
Query OK, 0 rows affected (0.01 sec)

mysql> insert into student (roll_no, name, address)
-> values(101, '', 'vimannagar');
-> //
ERROR 1644 (45000): name cannot be empty
mysql> insert into student (roll_no, name, address)
-> values (102, 'rahul', 'baner'); //
Query OK, 1 row affected (0.01 sec)

mysql> select * from student_log where roll_no = 102;
-> //
+-----+-----+-----+-----+-----+-----+-----+
| log_id | roll_no | name  | old_address | new_address | action_type | action_time |
+-----+-----+-----+-----+-----+-----+-----+
|      1 |     102 | rahul | NULL        | baner       | insert      | 2025-04-19 14:17:31 |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> update student
-> set address = null
-> where roll_no = 55;
-> //
ERROR 1644 (45000): address cannot be null
mysql> update student
-> set address = 'wagholi'
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mysql> update student
-> set address = 'wagholi'
-> where roll_no = 53;
-> select* from student_log where roll_no=53 and action_type= 'update';
-> //
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0

+-----+-----+-----+-----+-----+-----+-----+
| log_id | roll_no | name      | old_address | new_address | action_type | action_time      |
+-----+-----+-----+-----+-----+-----+-----+
|      2 |      53 | priyanshu | charholi    | wagholi     | update      | 2025-04-19 14:20:57 |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.01 sec)

mysql> delete from student
-> where roll_no = 53;
-> //
Query OK, 1 row affected (0.01 sec)

mysql> delete from student where roll_no =53; //
Query OK, 0 rows affected (0.00 sec)

mysql> select* from student_log where roll_no=53 and action_type= 'delete';
-> //
+-----+-----+-----+-----+-----+-----+-----+
| log_id | roll_no | name      | old_address | new_address | action_type | action_time      |
+-----+-----+-----+-----+-----+-----+-----+
|      3 |      53 | priyanshu | wagholi     | NULL        | delete      | 2025-04-19 14:21:37 |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> delete from student
-> where roll_no = 53;
-> //
Query OK, 0 rows affected (0.00 sec)
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1 row in set (0.01 sec)

mysql> delete from student  
-> where roll\_no = 53;  
-> //

Query OK, 1 row affected (0.01 sec)

mysql> delete from student where roll\_no =53; //

Query OK, 0 rows affected (0.00 sec)

mysql> select\* from student\_log where roll\_no=53 and action\_type= 'delete';  
-> //

log_id	roll_no	name	old_address	new_address	action_type	action_time
3	53	priyanshu	wagholi	NULL	delete	2025-04-19 14:21:37

1 row in set (0.00 sec)

mysql> delete from student  
-> where roll\_no = 53;  
-> //

Query OK, 0 rows affected (0.00 sec)

mysql> select\* from student\_log where roll\_no=53 and action\_type= 'update'; //

log_id	roll_no	name	old_address	new_address	action_type	action_time
2	53	priyanshu	charholi	wagholi	update	2025-04-19 14:20:57

1 row in set (0.00 sec)

mysql> delete from student where roll\_no = 31;  
-> select\* from student\_log where roll\_no=31 and action\_type= 'delete'; //

Query OK, 1 row affected (0.01 sec)

log_id	roll_no	name	old_address	new_address	action_type	action_time
4	31	sawpnil	kharadi	NULL	delete	2025-04-19 14:32:20

1 row in set (0.01 sec)

mysql>