

3740 Class Activity - Group A

Main

Group Work: An Introduction of MySQL Trigger

MySQL Trigger Syntax Part

Syntax Overview

To create a trigger or drop a trigger, use the `CREATE TRIGGER` and `DROP TRIGGER` statement.

Create a MySQL Trigger

```
CREATE
```

```
[DEFINER = user]
```

```
TRIGGER trigger_name
```

```
trigger_time trigger_event
```

```
ON tbl_name FOR EACH ROW
```

```
trigger_body
```

```
trigger_time: { BEFORE | AFTER }
```

```
trigger_event: { INSERT | UPDATE | DELETE }
```

trigger_time is the trigger action time. It can be BEFORE or AFTER to indicate that the trigger activates before or after each row to be modified.

Before Trigger activates

Something Changes

After Trigger activates

trigger_event indicates the kind of operation that activates the trigger, in other words, when those operations happens, the trigger activates.

trigger_body is the statement to execute when the trigger activates.

Within the trigger body, you can refer to columns in the subject table (the table associated with the trigger) by using the aliases OLD and NEW. OLD.col_name refers to a column of an existing row before it is updated or deleted. NEW.col_name refers to the column of a new row to be inserted or an existing row after it is updated.

Simple Example of Trigger Creation

```
CREATE TABLE account (acct_num INT, amount DECIMAL(10,2));

CREATE
  TRIGGER ins_sum
  BEFORE INSERT
  ON account FOR EACH ROW
  SET @sum = @sum + NEW.amount;
```

So, here we created a trigger named `ins_sum`, which triggered **before** the **insert** action happens. For example, here is the example that how our trigger activated.

```
mysql> SET @sum = 0;
mysql> INSERT INTO account VALUES(1, 1.10),(2, 2.20),(3,
3.30);
mysql> SELECT @sum AS 'Total amount inserted';
+-----+
| Total amount inserted |
+-----+
|                6.60  |
+-----+
```

In this case, the value of `@sum` after the `INSERT` statement has executed is `1.10 + 2.20 + 3.30`, or `6.60`.

Delete a MySQL Trigger

To destroy the trigger, use a `DROP TRIGGER` statement. You must specify the schema name if the trigger is not in the default schema:

```
DROP TRIGGER [IF EXISTS] [schema_name.]trigger_name
```

Simple Example

```
DROP TRIGGER test.ins_sum;
```