What is a Trigger?

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- MySQL Server triggers are special stored procedures that are executed automatically in response to the database object, database, and server events.
- For example, you can define a trigger that is invoked automatically before a new row is inserted into a table.
- MySQL supports triggers that are invoked in response to the INSERT, UPDATE or DELETE event.
- A row-level trigger is activated for each row that is inserted, updated, or deleted.
- For example, if a table has 100 rows inserted, updated, or deleted, the trigger is automatically invoked 100 times for the 100 rows affected.
- MySQL supports only row-level triggers. It doesn’t support statement-level triggers.

Trigger Pros and Cons

- **Pros**
- Triggers provide another way to check the integrity of data.
- Triggers handle errors from the database layer.
- Triggers give an alternative way to run scheduled tasks. By using triggers, you don’t have to wait for the scheduled events to run because the triggers are invoked automatically before or after a change is made to the data in a table.
- Triggers can be useful for auditing the data changes in tables.
- **Cons**
- Triggers can only provide extended validations, not all validations. For simple validations, you can use the NOT NULL, UNIQUE, CHECK and FOREIGN KEY constraints.
- Triggers can be difficult to troubleshoot because they execute automatically in the database, which may not invisible to the client applications.
- Triggers may increase the overhead of the MySQL Server.

Syntax of Trigger

- The CREATE TRIGGER statement allows you to create a new trigger that is fired automatically whenever an event such as INSERT, DELETE, or UPDATE occurs against a table.
- CREATE TRIGGER trigger_name

  {BEFORE | AFTER} {INSERT | UPDATE| DELETE }

  ON table_name FOR EACH ROW

  trigger_body;