





# SQL Triggers

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A trigger in SQL is a special type of stored procedure. It is automatically executed when a specific event occurred in the database.

#### Applications:

Updating other tables

Sending notifications

Logging information.



Every time a new order is inserted into the table, an order logs should be recorded in another table.

| order_id | customer_id | order_date | total_amount |
|----------|-------------|------------|--------------|
| 1        | 1           | 2020-01-01 | 100.00       |
| 2        | 2           | 2021-06-02 | 200.00       |
| 3        | 4           | 2021-06-03 | 300.00       |
| 4        | 4           | 2022-05-04 | 400.00       |
| 5        | 2           | 2022-07-05 | 500.00       |
| 6        | 6           | 2023-01-06 | 600.00       |
| 7        | 6           | 2023-02-07 | 700.00       |
| 8        | 8           | 2023-02-08 | 800.00       |
| 9        | 10          | 2023-02-09 | 900.00       |
| 10       | 10          | 2023-02-10 | 1000.00      |

| log_id | order_id | log_date   | message         |
|--------|----------|------------|-----------------|
| 1      | 10       | 2023-02-10 | New Order Added |
|        |          |            |                 |
|        |          |            |                 |
|        |          |            |                 |
|        |          |            |                 |
|        |          |            |                 |
|        |          |            |                 |
|        |          |            |                 |
|        |          |            |                 |
|        |          |            |                 |

CREATE TRIGGER trigger\_name

AFTER/BEFORE INSERT/UPDATE/DELETE ON orders

FOR EACH ROW

BEGIN

Code to be executed

END;

```
CREATE TRIGGER orders insert trigger
AFTER INSERT ON orders
FOR EACH ROW
BEGIN
   INSERT INTO order_logs (order_id, log_date, message)
   VALUES (NEW.order id, DATE(), 'New order added');
END;
INSERT INTO orders (order_id, customer_id, order_date, total_amount)
VALUES (11, 2, DATE(), 160.00);
```

### Exercise

Create a trigger when the record from orders table get updated. For example, when the total amount of certain customer is changed/updated.