

# Triggers

Ref: [https://www.sqlite.org/lang\\_createttrigger.html](https://www.sqlite.org/lang_createttrigger.html)

# Triggers

- The CREATE TRIGGER statement is used to add triggers to the database schema. Triggers are database operations that are automatically performed when a specified database event occurs.

# Triggers

- Each trigger must specify that it will fire for one of the following operations: DELETE, INSERT, UPDATE. The trigger fires once for each row that is deleted, inserted, or updated. If the "UPDATE OF column-name" syntax is used, then the trigger will only fire if column-name appears on the left-hand side of one of the terms in the SET clause of the UPDATE statement.

# Example

- Assuming that customer records are stored in the "customers" table, and that order records are stored in the "orders" table, the following UPDATE trigger ensures that all associated orders are redirected when a customer changes his or her address

# Example

```
CREATE TRIGGER update_customer_address UPDATE OF address ON customers
BEGIN
    UPDATE orders SET address = new.address WHERE customer_name = old.name;
END;
```

With this trigger installed, executing the statement:

```
UPDATE customers SET address = '1 Main St.' WHERE name = 'Jack Jones';
```

causes the following to be automatically executed:

```
UPDATE orders SET address = '1 Main St.' WHERE customer_name = 'Jack Jones';
```

```
=====
      1      2      3      4      5      6      7      8      9     10     11     12     13     14     15     16     17     18     19     20     21     22     23     24     25     26     27     28     29     30     31     32     33     34     35     36     37     38     39     40     41     42     43     44     45     46     47     48     49     50     51     52     53     54     55     56     57     58     59     60     61     62     63     64     65     66     67     68     69     70     71     72     73     74     75     76     77     78     79     80     81     82     83     84     85     86     87     88     89     90     91     92     93     94     95     96     97     98     99     100
```

# INSTEAD OF

```
CREATE TABLE customer(  
    cust_id INTEGER PRIMARY KEY,  
    cust_name TEXT,  
    cust_addr TEXT  
);  
CREATE VIEW customer_address AS  
    SELECT cust_id, cust_addr FROM customer;  
CREATE TRIGGER cust_addr_chng  
INSTEAD OF UPDATE OF cust_addr ON customer_address  
BEGIN  
    UPDATE customer SET cust_addr=NEW.cust_addr  
    WHERE cust_id=NEW.cust_id;  
END;
```

```
UPDATE customer_address SET cust_addr=$new_address WHERE cust_id=$cust_id;
```