

Overview

- similar to [[Procedures and Functions]] but execute on event
 - on delete/insert/update
- allow complex check constraints and active behaviour
 - replication
 - auto deletion
 - auditing
- very powerful but complex
 - need to be careful
 - lots of implicate dependencies
 - trigger may trigger other triggers
 - * infinite loop

Trigger Template

```
CREATE TRIGGER <triggername>
  BEFORE | AFTER | INSTEAD OF
  INSERT | DELETE | (UPDATE OF <column_list>)
  ON <tablename>
  [REFERENCING <old_new_alias_list>]
  [FOR EACH {ROW | STATEMENT}]
  [WHEN (<search condition>)]
  <SQL procedure statement> |
  BEGIN ATOMIC
  {<SQL Procedure statement>;}...
END
```

The diagram uses blue brackets on the right side of the SQL code to group parts of the trigger definition:

- A bracket groups the event specification: **BEFORE** | **AFTER** | **INSTEAD OF** **INSERT** | **DELETE** | (**UPDATE OF** <column_list>). This is labeled **Event** in red.
- A bracket groups the condition specification: [**REFERENCING** <old_new_alias_list>] [**FOR EACH** {**ROW** | **STATEMENT**}] [**WHEN** (<search condition>)]. This is labeled **Condition** in red.
- A bracket groups the action specification: <SQL procedure statement> | **BEGIN ATOMIC** {<SQL Procedure statement>;}... **END**. This is labeled **Action** in red.

There is a small red circle with a dot inside, located above the **Event** label.

[[SQL]]