## **Differences between Procedures and Triggers**

A <u>procedure</u> is executed <u>explicitly</u> from another block via a procedure call with passing arguments, while <u>a trigger is executed</u> (or fired) <u>implicitly</u> whenever the <u>triggering event</u> (**DML**: INSERT, UPDATE, or DELETE) happens, and <u>a trigger doesn't accept arguments</u>.

## Types of triggers

There are two types of triggers in Oracle including row-level triggers and statement-level triggers

## Row-level triggers for data-related activities

- Row-level triggers execute **once for each row** in a transaction.
- Row-level triggers are the most common type of triggers; they are often used in data auditing applications.
- Row-level trigger is identified by the **FOR EACH ROW** clause in the CREATE TRIGGER command.

## Statement-level triggers for transaction-related activities

- Statement-level triggers execute <u>once for each transaction</u>. For example, if <u>a single transaction</u> inserted 500 rows into the Customer table, then a statement-level trigger on that table would only be executed once.
- Statement-level triggers therefore are not often used for *data-related* activities; they are normally used to enforce additional security measures on the types of transactions that may be performed on a table.
- Statement-level triggers are the default type of triggers created and are identified by **omitting** the **FOR EACH ROW** clause in the CREATE TRIGGER command.