Triggers

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Triggers

- A trigger is a PL/SQL block structure which is fired when a DML statement like `INSERT, UPDATE` or `DELETE` is executed on a database table.

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Triggers

- Triggers are of 2 types:
  - Row level
  - Statement level (Table Level)

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Triggers

- Syntax:

```
CREATE [OR REPLACE] TRIGGER trigger_name
{BEFORE | AFTER | INSTEAD OF }
{INSERT [OR] | UPDATE [OR] | DELETE}
[OF <col_name>]
ON <table_name>
[REFERENCING OLD AS o NEW AS n]
[FOR EACH ROW]
WHEN (<condition>)
BEGIN
    statements
END;
```

Triggers

- `BEFORE  | AFTER | INSTEAD OF`
  - Indicates at what time should the trigger get fired.
  - `INSTEAD OF` is used to create a trigger on view.

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Triggers

- `INSERT [OR] | UPDATE [OR] | DELETE`
  - Determines the triggering event.
  - More than one triggering events can be used together separated by `OR` keyword.

Triggers

- `OF <col_name(s)>`
  - Used to handle an event only when a specific column is being updated.

Triggers

- `ON <table-name>`
  - Identifies the name of the table or view to which the trigger is associated.

Triggers

- `REFERENCING OLD AS o NEW AS n`
  - Used to reference the old and new values of the data being changed.
  - By default, you reference the values as :old.col_name or :new.col_name.

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- `FOR EACH ROW`
  - Indicates a row level trigger.

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- `WHEN` <condition>
  - Valid only for row level triggers.
  - The trigger is fired only for rows that satisfy the condition specified.

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Disabling Triggers

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Disabling Triggers

- Once a trigger is created, anytime it can be disabled to remove its impact by using

```
alter trigger <trigger-name> disable
```

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Lets Summarize

- What is PL / SQL
- Sections in PL / SQL
- Conditional Statements
- Iterative Statements
- Cursors
- Procedures and Functions
- Packages
- Exception Handling
- Triggers

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