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BEFORE INSERT Trigger

A BEFORE INSERT Trigger means that Oracle will fire this trigger before the INSERT operation is executed.

The syntax for an BEFORE INSERT Trigger is:

```
CREATE or REPLACE TRIGGER trigger_name
BEFORE INSERT
  ON table_name
  [ FOR EACH ROW ]
DECLARE
  -- variable declarations
BEGIN
  -- trigger code
EXCEPTION
  WHEN ...
  -- exception handling
END;
```

trigger_name is the name of the trigger to create.

Restrictions:

- You can not create a BEFORE trigger on a view.
- You can update the :NEW values.
- You can not update the :OLD values.

For example:

If you had a table created as follows:

```
CREATE TABLE orders
( order_id      number(5),
  quantity      number(4),
  cost_per_item number(6,2),
  total_cost    number(8,2),
  create_date   date,
  created_by    varchar2(10)
```

);

We could then create a BEFORE INSERT trigger as follows:

```
CREATE OR REPLACE TRIGGER orders_before_insert
BEFORE INSERT
  ON orders
  FOR EACH ROW

DECLARE
  v_username varchar2(10);

BEGIN

  -- Find username of person performing INSERT into table
  SELECT user INTO v_username
  FROM dual;

  -- Update create_date field to current system date
  :new.create_date := sysdate;

  -- Update created_by field to the username of the person performing the INSERT
  :new.created_by := v_username;

END;
```