fingerTips

Module-12

Triggers in SQL

1) Triggers in SQL

In the context of databases, a trigger is a piece of procedural code that is automatically executed in response to certain events occurring in the database, such as the insertion, deletion, or modification of data in a table.

2) Before insert triggers in SQL

A "before insert" trigger is a type of trigger that is executed before a new row is inserted into a table. This type of trigger is commonly used to validate or modify the data being inserted before it is actually stored in the table. For example, a "before insert" trigger could be used to ensure that certain fields are not left empty, or to automatically generate a unique identifier for each new row.

```
create trigger menu_trigger
before insert on menu_1
for each row
set new.price = new.price+100;
```

Insert a record in the table and see if price is being updateed or not

```
insert into menu_1(menu_id, r_id, f_id, price) values (101,20,11,150);
```

Check table after inserting value

```
select * from menu_1;
```

Note: We have inserted a new record in table menu, price=150 but since we have set a trigger so we can see new price is updated by 100 and now we have price=250.

3) After insert triggers in SQL

An "after insert" trigger, on the other hand, is executed after a new row has been inserted into a table. This type of trigger is

commonly used to perform additional actions or updates based on the newly inserted data. For example, an "after insert" trigger could be used to update a related table, or to send a notification email to a user.

Create a new table which stores updated price

Create table final_price
(total_price int);

Insert a record in the table and see if price is being updated or not

insert into menu_1(menu_id, r_id, f_id, price) values (103,19,10,180);

Note: We have inserted a new record in table menu, price=180 but since we have set a trigger so we can see new price is updated by 100 and now we have price=280.

create trigger price_trigger
after insert on menu_1
for each row
insert into final_price values(total_price);

Check table after inserting value

select * from menu_1;

4) *Difference between before insert and after insert triggers*
The main difference between "before insert" and "after insert" triggers is the point at which they are executed in the data insertion process. "Before insert" triggers are executed before the data is actually inserted into the table, while "after insert" triggers are executed after the data has been inserted.

5) *Drop trigger in SQL*

drop trigger price_trigger;

This will drop a trigger.

6) Show triggers in SQL
show triggers;

This will give us the list of all triggers present in our database.