

What is trigger ?

- are stored procedure/programme, which are automatically executed or fired when some event occurs.

Event can be any of the following :-

DML Statement like - DELETE, INSERT, UPDATE
DDL " " " " - CREATE, ALTER, DROP
Database operation like LOGON, LOGOFF, startup, & shut down

Purpose :-

- Gain strong control over security
- Enforcing referential integrity
- Auditing, etc.

Syntax

```
CREATE [OR REPLACE] TRIGGER trigger_name  
{ Before / After } { insert [OR] update [OR] delete }  
ON table_name  
[for each row] for  
DECLARE  
DECLARE statement  
Begin  
-- trigger body  
END ;
```

Q// write a PL-SQL code which will insert the data automatically into 'Backup' table whenever data is deleted from 'main' table.

Ans:

```
DELIMITER $$
```

```
Create trigger [trigger_name]
```

```
BEFORE DELETE ON [Main-table_name]
```

```
FOR EACH ROW
```

```
BEGIN
```

```
INSERT INTO [Backup-table_name] Values
```

```
(OLD.Id, OLD.name  
etc);
```

```
END;
```

```
$$ DELIMITER
```

EX-2// Let's make an Backup table which store new inserted employee data, also update & delete data.

```
Create table employees ( emp_id int,  
emp_name varchar(20),  
Salary int );
```

```
Create table Backup-table ( id int autoIncrement  
primary key,  
emp_id int,  
emp_name varchar(20),  
operation_type varchar(20),  
old_salary int,  
new_salary int,  
Salary difference int );
```


operation time timestamp DEFAULT current_time
Stamp

);

-- Create trigger

In my SQL Server, we can't store
insert, delete, update in single trigger
that's why we have to make different
trigger for different actions.

Delimiter \$\$

Create trigger salary_difference_insert
Before insert on employees
for each row

Begin

declare salary_difference int;

set salary_difference = New.salary - 0;

Insert into ~~Salary~~ Backup-table (emp_id, emp_name,
operation_type, old_salary, new_salary, salary-
difference) Values (New.emp_id, New.
emp_name, 'INSERT', Null, New.salary,
salary_difference);

END;

\$\$ Delimiter