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DBMSL ASSIGNMENT 7

* TITLE: TRIGGERS IN SQL

* PROBLEM STATEMENT:
Write a database trigger on library table. The system should keep track of the records that are being updated or deleted records should be added in library audit table.

* OBJECTIVE:
1) Understand the concept of row-level & statement level trigger

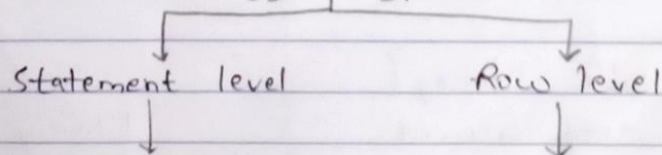2) Understand the concept of trigger initiated against event
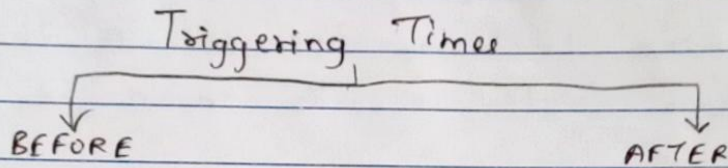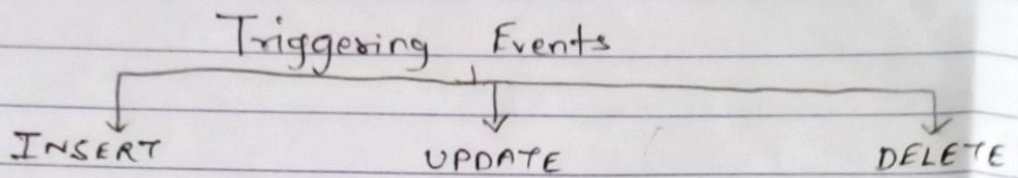
* REQUIREMENTS:
MySQL installed computer system

* THEORY:
A database trigger is a PL/SQL program unit, which gets fired automatically whenever the data event such as DML/DPL event occur.

Trigger Types

Statement level   Row level

trigger action executed once   trigger action executed
for manipulation operation   for each affected row

```
                    Triggering   Events
        ┌───────────────────┼───────────────────────────┐
        ↓                    ↓                           ↓
     INSERT              UPDATE                       DELETE
```

```
                    Triggering   Time
        ┌───────────────────┼───────────────────────────┐
        ↓                                                ↓
     BEFORE                                           AFTER
```

- General Syntax for Creation of Trigger :-

```
create  trigger  <trigger-name>
[before | after]  [insert | update | delete]  of
    [col1 | col2...]   on   <table-name>
for  each  row
when   <condition>
begin
        statements
end;
```

* <u>TEST CASES</u> :

Input	Output

1) create table library (
     id int auto-increment
        primary key,
 name varchar (20),
 price int);
	library table
	 created

2)	create table audit_course (id , int auto-increment primary key , name varchar (20), price int) ;	• Audit table created
3)	update library set price = 4000 where name = 'spos' ;	entry in library, with name = 'spos' updated
4)	delete from library where name = 'CN'.	entry in library

5)   select * from audit_course

ID	Name	Price
3	SPOS	3000
4	CN	2000

* CONCLUSION:

By implementing this assignment, we are able to create
triggers, understand their types, events & time to create
a backup table.