

EXPERIMENT NO.7

Aim- To perform Triggers using PL/SQL code on relations.

Query 1: Create two tables Stud_master and Stud_report having following attributes:

STUD_MASTER

Name	Type
Roll_no	Number
Name	Varchar2
Sub1	Number
Sub2	Number
Sub3	Number
Address	Varchar

STUD_REPORT

Name	Type
Roll_no	Number
Total	Number
Percentage	Number

Also create a trigger which write the performance of corresponding student whenever a new record is inserted in Student_master table.

Solution-

```
Create table stud_master (roll_no number, name varchar2(15), sub1 number,sub2 number, sub3 number, address  
varchar(30));
```

```
create table stud_report (roll_no number, total number, percentage number);
```

```
create or replace trigger trg after insert on stud_master
```

```
for each row
```

```
declare
```

```
roll number;
```

```
total number;
```

```
per number;
```

```
begin
```

```
roll:=:new.roll_no;
```

```
total:=:new.sub1+:new.sub2+:new.sub3;
```

```
per:=(0.33*(total));
```

```
insert into stud_report values(roll,total,per);
end;
insert into stud_master values(1,'Aditya',60,70,75,'Jodhpur(raj.)');
select * from stud_master;
```

Output-

ROLL_NO	NAME	SUB1	SUB2	SUB3	ADDRESS
1	Aditya	60	70	75	Jodhpur(raj.)

Solution-

```
select * from stud_report;
```

Output-

ROLL_NO	TOTAL	PERCENTAGE
1	205	67.65

Query 2: Create a table Ledger with the following attributes:

Name	Type
Action_date	Date
Name	Varchar2
Amount	Number

Insert in it some proper values. Now create another table **Ledger_audit** with structure:

Name	Type
Date	Date
Type	Char('D' for deposit, 'W' for withdrawal)
Amount	Number

Write a trigger that works so as to monitor any changes to the amount, which are greater or lesser than previous value by 40%. Show the changing values of amount of some records.

Solution-

```
create table ledger(action_date date, name varchar2(20),amount number);
create table ledger_audit(a_date date,type char,amount number);
create or replace trigger bank after update on ledger
for each row
```

```

declare
amn1 number;
amn2 number;
trns char;
bal number;
begin
amn1:=old.amount;
amn2:=new.amount;
if ((amn1>amn2) and (amn1*0.04<amn1-amn2))then
trns:='W';
bal:=amn1-amn2;
insert into ledger_audit values(current_date,trns,bal);
end if;
if((amn2>amn1)and(amn1*0.04<amn2-amn1))then
trns:='D';
bal:=amn2-amn1;
insert into ledger_audit values(current_date,trns,bal);
end if;
end;
insert into ledger values('11-oct-18','Anuj',20000);
update ledger set amount =12000 where name='Anuj';
select * from ledger;

```

Output-

ACTION_DATE	NAME	AMOUNT
11-OCT-18	Anuj	12000

Solution-

```
select * from ledger_audit;
```

Output-

A_DATE	TYPE	AMOUNT
13-OCT-18	W	8000

Solution-

```
update ledger set amount =20000 where name='Anuj';
```

```
select * from ledger;
```

Output-

ACTION_DATE	NAME	AMOUNT
11-OCT-18	Anuj	20000

Solution-

```
select * from ledger_audit;
```

Output-

A_DATE	TYPE	AMOUNT
13-OCT-18	W	8000
13-OCT-18	D	8000