

NAME : ANSHUL AHER
BATCH : P
ROLL NO : 10
PRN : F21113010
ASSIGNMENT NO : A8
ASSIGNMENT TITLE : Database Trigger (All Types: Row level and Statement level triggers, Before and After Triggers).

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SQL*Plus: Release 19.0.0.0.0 - Production on Thu Nov 2 21:19:42 2023
Version 19.3.0.0.0

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Enter user-name: sys as sysdba
Enter password:

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0

SQL> create table library_table (roll_no int ,name varchar(50),
date_of_issue date ,name_of_book varchar(50) ,status varchar(10));

Table created.

SQL> create table audit_table (roll_no int ,name varchar(50),
date_of_issue date ,name_of_book varchar(50) ,status varchar(10),
operation varchar(10));

Table created.

SQL> insert into library_table values (1 , 'JOHN' , '22-jul-2023' ,
'DBMS' , 'Issued');

1 row created.

SQL> insert into library_table values (2 , 'ZEUS' , '19-aug-2023' , 'IOT'
, 'Issued');

1 row created.

SQL> insert into library_table values (3 , 'PETER' , '07-may-2023' ,
'TOC' , 'Issued');

1 row created.

SQL> insert into library_table values (4 , 'ROBERT' , '19-mar-2023' ,
'SPOS' , 'Issued');

1 row created.

SQL> insert into library_table values (5 , 'BEN' , '01-feb-2023' , 'CNS'
, 'Issued');

1 row created.

```
SQL> select *from library_table;
```

ROLL_NO	NAME	DATE_OF_I
1	JOHN	22-JUL-23
DBMS		Issued
2	ZEUS	19-AUG-23
IOT		Issued
3	PETER	07-MAY-23
TOC		Issued

ROLL_NO	NAME	DATE_OF_I
4	ROBERT	19-MAR-23
SPOS		Issued
5	BEN	01-FEB-23
CNS		Issued

```
SQL> CREATE OR REPLACE TRIGGER after_row_level
2 AFTER UPDATE OR DELETE
3 ON library_table
4 FOR EACH ROW
5 BEGIN
6 IF updating THEN
7 INSERT INTO audit_table VALUES(:old.roll_no, :old.name,
:old.date_of_issue, :old.name_of_book, :old.status, 'update');
8 ELSIF deleting THEN
9 INSERT INTO audit_table VALUES(:old.roll_no, :old.name,
:old.date_of_issue, :old.name_of_book, :old.status, 'delete');
10 END IF;
11 END;
12 /
```

Trigger created.

```
SQL> update library_table set name_of_book='DBMS' where roll_no=4;
```

1 row updated.

```
SQL> select * from library_table;
```

ROLL_NO	NAME	DATE_OF_I
1	JOHN	22-JUL-23
DBMS		Issued
2	ZEUS	19-AUG-23
IOT		Issued

TOC	3 PETER	Issued	07-MAY-23
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ROLL_NO	NAME		DATE_OF_I
NAME_OF_BOOK		STATUS	
DBMS	4 ROBERT	Issued	19-MAR-23
CNS	5 BEN	Issued	01-FEB-23

SQL> delete from library_table where roll_no=4;

1 row deleted.

SQL> select * from library_table;

ROLL_NO	NAME		DATE_OF_I
NAME_OF_BOOK		STATUS	
DBMS	1 JOHN	Issued	22-JUL-23
IOT	2 ZEUS	Issued	19-AUG-23
TOC	3 PETER	Issued	07-MAY-23

ROLL_NO	NAME		DATE_OF_I
NAME_OF_BOOK		STATUS	
CNS	5 BEN	Issued	01-FEB-23