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Class : TE-A

Roll no : 13165

Batch : A3

Aim : Database Trigger (All Types: Row level and Statement level triggers, Before and After Triggers).

```
SQL> SET SERVEROUT ON
```

```
SQL> SET VERIFY OFF
```

```
SQL> CREATE TABLE Lib_1(book_name VARCHAR2(25),status VARCHAR2(15));
```

Table created.

```
SQL> INSERT INTO Lib_1 VALUES('DARK MATTER','AVAILABLE');
```

1 row created.

```
SQL> INSERT INTO Lib_1 VALUES ('SILENT HILL','UNAVAILABLE');
```

1 row created.

```
SQL> INSERT INTO Lib_1 VALUES('GOD OF WAR','AVAILABLE');
```

1 row created.

```
SQL> INSERT INTO Lib_1 VALUES('SPIDER-MAN','UNAVAILABLE');
```

1 row created.

```
SQL> CREATE TABLE library_ad(date_modified DATE, book_name VARCHAR2(25),old_status  
VARCHAR(15),new_status VARCHAR2(15),action VARCHAR2(25));
```

Table created.

```
SQL> CREATE OR REPLACE TRIGGER Trig
```

```
2 AFTER UPDATE OR DELETE OR INSERT ON Lib_1 FOR EACH ROW
```

```
3 ENABLE
```

```
4 BEGIN
```

```
5 IF UPDATING THEN
```

```
6 dbms_output.put_line(:OLD.status);
```

```
7 INSERT INTO library_ad VALUES  
(SYSDATE,:OLD.book_name,:OLD.status,:NEW.status,'UPDATE');
```

```
8 ELSIF INSERTING THEN
```

```
9 dbms_output.put_line(:NEW.status);
```

```

10 INSERT INTO library_ad VALUES
(SYSDATE,:NEW.book_name,:OLD.status,:NEW.status,'INSERT');
11 ELSE
12 dbms_output.put_line(:OLD.book_name||'deleting');
13 INSERT INTO library_ad
VALUES(SYSDATE,:OLD.book_name,:OLD.status,:NEW.status,'DELETE');
14 END IF;
15 END;
16 /

```

Trigger created.

```

SQL> UPDATE Lib_1 SET status = 'PRE-ORDER' WHERE book_name = 'GOD OF WAR';
AVAILABLE
1 row updated.

```

```

SQL> INSERT INTO Lib_1 VALUES('SPM','UNAVAILABLE');
UNAVAILABLE
1 row created.

```

```

SQL> UPDATE Lib_1 SET status = 'UNAVAILABLE' WHERE book_name = 'DARK MATTER';
AVAILABLE
1 row updated.

```

```

SQL> DELETE FROM Lib_1 WHERE book_name = 'SILENT HILL';
SILENT HILLdeleting
1 row deleted.

```

```

SQL> Select * from Lib_1;

```

BOOK_NAME	STATUS
DARK MATTER	UNAVAILABLE
GOD OF WAR	PRE-ORDER

SPIDER-MAN UNAVAILABLE

SPM UNAVAILABLE

SQL> Select * from library_ad;

DATE_MODI	BOOK_NAME	OLD_STATUS	NEW_STATUS
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ACTION

30-SEP-24	GOD OF WAR	AVAILABLE	PRE-ORDER
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UPDATE

30-SEP-24	SPM	UNAVAILABLE	
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INSERT

30-SEP-24	DARK MATTER	AVAILABLE	UNAVAILABLE
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UPDATE

DATE_MODI	BOOK_NAME	OLD_STATUS	NEW_STATUS
-----------	-----------	------------	------------

ACTION

30-SEP-24	SILENT HILL	UNAVAILABLE	
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DELETE