ASSIGNMENT NO 8 : Solution

**Oracle SQL TRIGGER**

SQL> CREATE TABLE lib\_tab(book\_name VARCHAR2(25),status VARCHAR2(15));

Table created.

SQL> CREATE TABLE library\_audit(date\_modified DATE, book\_name VARCHAR2(25),old\_status VARCHAR(15),new\_status VARCHAR2(15),action VARCHAR2(25));

Table created.

SQL> INSERT INTO lib\_tab VALUES('DARK MATTER','AVAILABLE');

1 row created.

SQL> INSERT INTO lib\_tab VALUES('SILENT HILL','UNAVAILABLE');

1 row created.

SQL> INSERT INTO lib\_tab VALUES('GOD OF WAR','AVAILABLE');

1 row created.

SQL> INSERT INTO lib\_tab VALUES('SPIDER-MAN','UNAVAILABLE');

1 row created.

SQL> INSERT INTO lib\_tab VALUES('UNCHARTED','AVAILABLE');

1 row created.

SQL> select \* from lib\_tab;

BOOK\_NAME STATUS

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DARK MATTER AVAILABLE

SILENT HILL UNAVAILABLE

GOD OF WAR AVAILABLE

SPIDER-MAN UNAVAILABLE

UNCHARTED AVAILABLE

SQL> CREATE OR REPLACE TRIGGER trigger\_1

2 AFTER UPDATE OR DELETE OR INSERT ON lib\_tab FOR EACH ROW

3 ENABLE

4 BEGIN

5 IF UPDATING THEN

6 dbms\_output.put\_line(:OLD.status);

7 INSERT INTO library\_audit 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\_audit 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\_audit VALUES(SYSDATE,:OLD.book\_name,:OLD.status,:NEW.status,'DELETE');

14 END IF;

15 END;

16 /

Trigger created.

SQL> select \* from library\_audit;

no rows selected

SQL> DELETE FROM lib\_tab WHERE book\_name = 'SILENT HILL';

SILENT HILLdeleting

1 row deleted.

SQL> select \* from library\_audit;

DATE\_MODI BOOK\_NAME OLD\_STATUS NEW\_STATUS

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ACTION

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30-OCT-22 SILENT HILL UNAVAILABLE

DELETE

SQL> UPDATE lib\_tab SET status = 'UNAVAILABLE' WHERE book\_name = 'UNCHARTED';

AVAILABLE

1 row updated.

SQL> select \* from library\_audit;

DATE\_MODI BOOK\_NAME OLD\_STATUS NEW\_STATUS

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ACTION

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30-OCT-22 SILENT HILL UNAVAILABLE

DELETE

30-OCT-22 UNCHARTED AVAILABLE UNAVAILABLE

UPDATE

SQL> INSERT INTO lib\_tab VALUES('SPM','UNAVAILABLE');

UNAVAILABLE

1 row created.

SQL> select \* from library\_audit;

DATE\_MODI BOOK\_NAME OLD\_STATUS NEW\_STATUS

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ACTION

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30-OCT-22 SILENT HILL UNAVAILABLE

DELETE

30-OCT-22 UNCHARTED AVAILABLE UNAVAILABLE

UPDATE

30-OCT-22 SPM UNAVAILABLE

INSERT

**Conclusion :**

In this assignment we have studied how to create a Trigger in Oracle and MySQL. We have successfully implemented trigger to keep track of update and delete operation performed on library table.