**Write a database trigger on Library table. The System should keep track of the records that are being updated or deleted. The old value of updated or deleted records should be added in Library\_Audit table.**

**Roll no:**13116

**Name:** Prem Bisu

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

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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

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

UPDATE

30-SEP-24 SPM UNAVAILABLE

INSERT

30-SEP-24 DARK MATTER AVAILABLE UNAVAILABLE

UPDATE

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

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ACTION

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30-SEP-24 SILENT HILL UNAVAILABLE

DELETE