

Program Code –

```
CREATE SEQUENCE Audit_seq START WITH 1 INCREMENT BY 1;

CREATE OR REPLACE TRIGGER before_update_library
BEFORE UPDATE ON Library
FOR EACH ROW
BEGIN
    INSERT INTO Library_Audit (AuditID, BookID, Title, Author, Price, ActionType)
    VALUES (Audit_seq.NEXTVAL, :OLD.BookID, :OLD.Title, :OLD.Author, :OLD.Price, 'BEFORE UPDATE');
END;

/

CREATE OR REPLACE TRIGGER after_update_library
AFTER UPDATE ON Library
FOR EACH ROW
BEGIN
    INSERT INTO Library_Audit (AuditID, BookID, Title, Author, Price, ActionType)
    VALUES (Audit_seq.NEXTVAL, :OLD.BookID, :OLD.Title, :OLD.Author, :OLD.Price, 'AFTER UPDATE');
END;

/

CREATE OR REPLACE TRIGGER before_delete_library
BEFORE DELETE ON Library
FOR EACH ROW
BEGIN
    INSERT INTO Library_Audit (AuditID, BookID, Title, Author, Price, ActionType)
    VALUES (Audit_seq.NEXTVAL, :OLD.BookID, :OLD.Title, :OLD.Author, :OLD.Price, 'BEFORE DELETE');
END;

/

CREATE OR REPLACE TRIGGER after_delete_library
AFTER DELETE ON Library
FOR EACH ROW
BEGIN
    INSERT INTO Library_Audit (AuditID, BookID, Title, Author, Price, ActionType)
    VALUES (Audit_seq.NEXTVAL, :OLD.BookID, :OLD.Title, :OLD.Author, :OLD.Price, 'AFTER DELETE');
END;

/
```

Output –

```
SQL Plus
SQL> @C:\Users\kotka\Downloads\trigger.sql
Sequence created.

Trigger created.

Trigger created.

Trigger created.

Trigger created.

SQL> INSERT INTO Library VALUES (1, 'DBMS', 'Korth', 500);
1 row created.

SQL> select * from library;

   BOOKID TITLE                                AUTHOR                                PRICE
-----
      1 DBMS                                Korth                                500

SQL> UPDATE Library SET Price = 600 WHERE BookID = 1;
1 row updated.

SQL> select * from library;

   BOOKID TITLE                                AUTHOR                                PRICE
-----
      1 DBMS                                Korth                                600

SQL> select * from Library_Audit;

 AUDITID   BOOKID TITLE                                AUTHOR
-----

```

```
SQL Plus

PRICE ACTIONTYPE ACTIONDAT
-----
      1      1 DBMS                                Korth
    500 BEFORE UPDATE                16-SEP-25

      2      1 DBMS                                Korth
    500 AFTER UPDATE                 16-SEP-25

SQL> DELETE FROM Library WHERE BookID = 1;
1 row deleted.

SQL> select * from library;
no rows selected

SQL> select * from Library_Audit;

 AUDITID   BOOKID TITLE                                AUTHOR
-----
PRICE ACTIONTYPE ACTIONDAT
-----
      1      1 DBMS                                Korth
    500 BEFORE UPDATE                16-SEP-25

      2      1 DBMS                                Korth
    500 AFTER UPDATE                 16-SEP-25

      3      1 DBMS                                Korth
    600 BEFORE DELETE                16-SEP-25

 AUDITID   BOOKID TITLE                                AUTHOR
-----
PRICE ACTIONTYPE ACTIONDAT
-----
      4      1 DBMS                                Korth
    600 AFTER DELETE                 16-SEP-25

```