DBMS – Assignment A8

Creating tables & inserting data

```
CREATE TABLE Library(
    id NUMBER(12),
    title VARCHAR(255),
    dateofissue DATE,
    author VARCHAR(255)
);
```
Table created.
```
CREATE TABLE Library_Audit(
    id NUMBER(12),
    title VARCHAR(255),
    dateofaction DATE,
    author VARCHAR(255),
    status VARCHAR(255)
);
```
Table created.

```
INSERT INTO Library VALUES (1, 'Berserk', TO_DATE('2024-07-28','YYYY-MM-DD'), 'Prashant');
INSERT INTO Library VALUES (2, 'Dark', TO_DATE('2024-07-15','YYYY-MM-DD'), 'Rajendra');
INSERT INTO Library VALUES (3, 'Hannibal', TO_DATE('2024-07-20','YYYY-MM-DD'), 'Manoj');
INSERT INTO Library VALUES (4, 'AOT', TO_DATE('2024-07-30','YYYY-MM-DD'), 'Rajesh');
INSERT INTO Library VALUES (5, 'GOT', TO_DATE('2024-07-19','YYYY-MM-DD'), 'Anil');
```
1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

1 row(s) inserted.

Procedure
```
CREATE OR REPLACE TRIGGER library_action
AFTER INSERT OR UPDATE OR DELETE ON Library
FOR EACH ROW
BEGIN
```

```
        IF INSERTING THEN
        INSERT INTO Library_Audit (id, title, dateofaction, author, status)
VALUES (:NEW.id, :NEW.title, current_timestamp, :NEW.author, 'Insert');
        ELSIF UPDATING THEN
            INSERT INTO Library_Audit (id, title, dateofaction, author,
status) VALUES (:OLD.id, :OLD.title, current_timestamp, :OLD.author,
'Update');
        ELSIF DELETING THEN
            INSERT INTO Library_Audit (id, title, dateofaction, author,
status) VALUES (:OLD.id, :OLD.title, current_timestamp, :OLD.author,
'Delete');
        END IF;
END;
/
```

Trigger created.

Output

Insert operation

```
INSERT INTO Library VALUES (15, 'CREW', TO_DATE('2024-07-22','YYYY-MM-
DD'), 'Ramesh');
```

```
INSERT INTO Library VALUES (14, 'Ninteen Eighty Four', TO_DATE('2024-07-
01','YYYY-MM-DD'), 'Omkar');
```

1 row(s) updated.

1 row(s) updated.

Library:

ID	TITLE	DATEOFISSUE	AUTHOR
1	Berserk	28-JUL-24	Prashant
2	Dark	15-JUL-24	Rajendra
3	Hannibal	20-JUL-24	Manoj
4	AOT	30-JUL-24	Rajesh
5	GOT	19-JUL-24	Anil
15	CREW	22-JUL-24	Ramesh
14	Ninteen Eighty Four	01-JUL-24	Omkar

Library_Audit:

ID	TITLE	DATEOFACTION	AUTHOR	STATUS
15	CREW	06-OCT-24	Ramesh	Insert
14	Ninteen Eighty Four	06-OCT-24	Omkar	Insert

Update operation

```
UPDATE Library SET id = 6, title = 'Sherlock', author = 'Deepak' where id
= 3;
```

```
UPDATE Library SET id = 7, title = 'MR. ROBOT', author = 'Varad' where id
= 4;
```

1 row(s) updated.

1 row(s) updated.

Library:

ID	TITLE	DATEOFISSUE	AUTHOR
1	Berserk	28-JUL-24	Prashant
2	Dark	15-JUL-24	Rajendra
6	Sherlock	20-JUL-24	Deepak
7	MR. ROBOT	30-JUL-24	Varad
5	GOT	19-JUL-24	Anil
15	CREW	22-JUL-24	Ramesh
14	Ninteen Eighty Four	01-JUL-24	Omkar

Library_Audit:

ID	TITLE	DATEOFACTION	AUTHOR	STATUS
3	Hannibal	06-OCT-24	Manoj	Update
4	AOT	06-OCT-24	Rajesh	Update
15	CREW	06-OCT-24	Ramesh	Insert
14	Ninteen Eighty Four	06-OCT-24	Omkar	Insert

Delete operations

```
DELETE FROM Library WHERE id = 1;
DELETE FROM Library WHERE id = 5;
```

1 row(s) deleted.

1 row(s) deleted.

Library:

ID	TITLE	DATEOFISSUE	AUTHOR
2	Dark	15-JUL-24	Rajendra
6	Sherlock	20-JUL-24	Deepak
7	MR. ROBOT	30-JUL-24	Varad
15	CREW	22-JUL-24	Ramesh
14	Ninteen Eighty Four	01-JUL-24	Omkar

Library_Audit:

ID	TITLE	DATEOFACTION	AUTHOR	STATUS
3	Hannibal	06-OCT-24	Manoj	Update
4	AOT	06-OCT-24	Rajesh	Update
1	Berserk	06-OCT-24	Prashant	Delete
5	GOT	06-OCT-24	Anil	Delete
15	CREW	06-OCT-24	Ramesh	Insert
14	Ninteen Eighty Four	06-OCT-24	Omkar	Insert

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