

# DBMS – Assignment A7

## 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.**

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**1 row(s) inserted.**

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## 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, 'Nineteen 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	Nineteen Eighty Four	01-JUL-24	Omkar

*Library\_Audit:*

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

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