

PRACTICAL-11

AIM- To create a PL/SQL block that deletes records from a table with age 21.

Additionally, it generates a trigger that stores the original record in another table before deletion.

Constraints

1. **Deletion Condition:** Delete records from the main table where the age is 21.
2. **Trigger:** Before deleting a record, store the original record in another table.

QUERY:

```
CREATE TABLE Employees (  
    id NUMBER PRIMARY KEY,  
    name VARCHAR2(50),  
    age NUMBER  
);
```

```
CREATE TABLE DeletedRecords (  
    id NUMBER,  
    name VARCHAR2(50),  
    age NUMBER,  
    deleted_date DATE  
);
```

```
INSERT INTO Employees (id, name, age) VALUES (101, 'Alice', 21);  
INSERT INTO Employees (id, name, age) VALUES (102, 'Bob', 25);  
INSERT INTO Employees (id, name, age) VALUES (103, 'Charlie', 21);  
INSERT INTO Employees (id, name, age) VALUES (104, 'Peter', 30);
```

```
CREATE OR REPLACE PROCEDURE delete_and_backup_employees (  
    p_age IN NUMBER  
) AS  
BEGIN
```

```
INSERT INTO DeletedRecords (id, name, age, deleted_date)
SELECT id, name, age, SYSDATE
FROM Employees
WHERE age = p_age;
DELETE FROM Employees WHERE age = p_age;
DBMS_OUTPUT.PUT_LINE('Records deleted and backed up: ' || SQL%ROWCOUNT);
EXCEPTION
    WHEN OTHERS THEN
        DBMS_OUTPUT.PUT_LINE('An error occurred: ' || SQLERRM);
END;

BEGIN
    delete_and_backup_employees(21);
END;

SELECT * FROM Employees;
SELECT * FROM DeletedRecords;
```

Tasks -

Test Case 1: Delete records where the age is 21

Objective: Verify that records with an age of 21 are successfully deleted.

Expected Result: Records with an age of 21 ('Alice' and 'Charlie') should be deleted.

ID	NAME	AGE
102	Bob	25
104	Peter	30

2 rows returned in 0.00 seconds

[CSV Export](#)

Test Case 2: Verify Trigger Functionality

Objective: Verify that the trigger successfully stores original records in the DeletedRecords table before

deletion.

Expected Result: The DeletedRecords table should contain the original records of 'Alice' and 'Charlie' before they were deleted.

ID	NAME	AGE	DELETED_DATE
101	Alice	21	10-OCT-24
103	Charlie	21	10-OCT-24

2 rows returned in 0.00 seconds

[CSV Export](#)

CONCLUSION:

- From is this practical I've learnt that how can I use SQL in a way that deleted data can be stored from one table to another table i.e. if user delete the data from a website/a software then it'll automatically stored in main server/head-quarters so that one can reuse the data.