

15/9/25

## TASK:6 Triggers, views and exceptions

Aim:

To implement Triggers, views and exception on CRUD operation

Step 1: Create Patient Table

```
CREATE TABLE Patient (  
    Patient_id NUMBER PRIMARY KEY,  
    Patient_Name VARCHAR2(50),  
    age INT  
    Status VARCHAR2(20)  
);
```

Step 2: view for Active patients

```
CREATE OR REPLACE VIEW active_patients AS  
SELECT Patient_id, Patient_Name, age  
FROM Patient  
WHERE Status = 'Admitted';
```

Execution:

```
INSERT INTO Patient VALUES (101, 'Rahul', 33,  
'Admitted');
```

```
INSERT INTO Patient VALUES (102, 'Anita', 40,  
'Discharged');
```

```
INSERT INTO Patient VALUES (103, 'Suresh', 25,  
'Admitted');
```

```
COMMIT;
```

```
SELECT * FROM active_patients
```

Output:

patient_ID	patient_Name	AGE
101	Rahul	32
103	Swish	28

step 3: Trigger to Restrict deletion of Admitted patients

```
CREATE OR REPLACE TRIGGER  
prevent_admitted_delete  
BEFORE DELETE ON patient  
FOR EACH ROW  
BEGIN
```

```
IF :OLD.status = 'Admitted' THEN  
    RAISE_APPLICATION_ERROR  
        (20001, 'cannot delete Admitted patient');
```

```
END IF;
```

```
END;
```

```
/
```

Execution:

```
DELETE FROM patient WHERE patient_id = 101;
```

Output:

ORA-20001: cannot delete Admitted patient

ORA-06512: at "PREVENT\_ADMITTED\_DELETE",

line 3

#### Step 4: Exception Handling in UPDATE

DECLARE

v\_id patient.patient\_id %TYPE := 200;

v\_name patient\_name %TYPE;

BEGIN

UPDATE patient

SET patient\_name = 'Mepna'

WHERE patient\_id = v\_id;

IF SQL%ROWCOUNT = 0 THEN

RAISE\_APPLICATION\_ERROR(-20002,

'No patient found with ID' || v\_id);

END IF;

EXCEPTION

WHEN OTHERS THEN

dbms\_output.put\_line('Error: ' || SQLERRM);

END;

/

Output:

Error: ORA-20002: No patient found with ID 200

Steps: After insert Trigger for Audit

CREATE TABLE patient\_audit (  
audit\_id NUMBER GENERATED ALWAYS AS

IDENTITY

patient\_id NUMBER,

action VARCHAR2(200),

action\_date DATE

);

CREATE OR REPLACE TRIGGER  
 audit - patient - insert  
 AFTER INSERT ON patient  
 FOR EACH ROW  
 BEGIN

INSERT INTO patient\_audit (patient\_id,  
 action, action\_date)  
 VALUES (:NEW.patient\_id, 'INSERT',  
 SYSDATE);

END;

Execution:

INSERT INTO patients VALUES (104, 'Meead',  
 25, 'Admitted');

SELECT \* FROM patient\_audit;

Output:

AUDIT_ID	PATIENT ID	Action	ACTION DATE
1	104	INSERT	19-SEP-25

VET TECH	
EXAM	6
PERFORMANCE (10)	5
RESULTANT (10) (10) (10)	5
VIVA VOCE (10)	5
RECORDING	5
TOTAL (20)	15
SIGN WITH DATE	15/9/25

Result:

Thus, the triggers, views and Exception  
 were successfully executed