

16-09-25

## TASK - b

### Triggers, View and Exceptions

Aim: To implement triggers, view and exceptions in SQL

Procedure:

- 1.) Create customer Table
- 2.) Insert the values
- 3.) Perform Trigger operations
- 4.) Perform view operations
- 5.) Perform Exception Handling -

#### 1. Implementing Triggers:-

```
CREATE TABLE CUSTOMER {  
    customer_id INT PRIMARY KEY,  
    Name VARCHAR (50),  
    Age INT,  
    Phone VARCHAR (15),  
    Email VARCHAR (50)  
};
```

```
CREATE OR REPLACE TRIGGER prevent_underage_customer  
BEFORE INSERT ON CUSTOMER  
FOR EACH ROW  
BEGIN  
    IF :NEW.Age < 18 THEN  
        RAISE APPLICATION ERROR (2000, 'CUSTOMER AGE must be  
        20 or above');  
    END IF;  
END;
```

2. Create a Log Table for Customer Actions

```
CREATE TABLE customerLog(  
    LogID Number Primary Key,  
    customerID INT,  
    ActionType VARCHAR(20),  
    ActionDate TIMESTAMP DEFAULT SYSTEMSTAMP  
)
```

2.) Creating Views :-

view for customer contact information

```
CREATE OR REPLACE VIEW view_customer_contacts AS  
SELECT customerID, Name, Phone, Email  
FROM CUSTOMER;
```

```
CREATE OR REPLACE VIEW view_Customer_Age_Categories AS  
SELECT  
    customerID,  
    Name,  
    CASE  
        WHEN Age BETWEEN 20 AND 30 THEN 'YOUNG'  
        WHEN Age BETWEEN 30 AND 45 THEN 'ADULT'  
        WHEN Age BETWEEN 45 AND 65 THEN 'MIDDLE'  
        ELSE SENIOR  
    END AS Age_Categories  
FROM CUSTOMER;
```

### 3. Exception Handling

Sort of Procedure with Exception Handling for inserting customer records.

CREATE OR REPLACE PROCEDURE InsertCustomer

P\_CustomerID IN INT;

P\_Name IN VARCHAR,

P\_Age IN INT,

P\_Phone IN VARCHAR

P\_Email IN VARCHAR

)

IS

BEGIN

INSERT INTO CUSTOMER (CUSTOMER\_ID, Name, Age, Phone, Email)  
VALUES (P\_CustomerID, P\_name, P\_Age, P\_Phone, P\_Email);

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE ('ERROR : ||SQLERRM);

END;

VEL TECH - CSE	
EX NO.	
PERFORMANCE (5)	66
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
SCORING (5)	4
TOTAL (20)	—
GRAND TOTAL	140

✓ VStalas

Result: Thus, Implementation of Triggers, views, triggers are created successfully