**NAME : MANGESH A. GHADWAJE**

**ROLL NO:24**

**BATCH : B2**

**COURSE: DBMS PRACTICAL**

**Assginment No. 3**

**Problem Statement :** Write at least 10 SQL queries on the suitable database application using SQL DML statements: Insert, Select, Update, Delete with operators (Arithmetic Operators, Logical Operators, Comparison Operator, Special Operator), functions (Number function, Aggregate Function, Character Function, Conversion Function, Date Function)

suitable example

SQL DML statements

**a) INSERT**

i) Insert Query with Arithmetic Operators and Functions:

-- Insert a new donor with calculated age

INSERT INTO donor (Name, Age, Blood\_Type)

VALUES ('Prashant Dasnur’, YEAR(CURRENT\_DATE) - YEAR('2002-01-31'), 'O+');

ii) Insert Query with Conversion Function:

-- Insert a new blood bank with quantity provided as a string and convert it to integer

INSERT INTO blood\_bank (Location, Quantity)

VALUES ('Los Angeles', CAST('500' AS INT));

**b) SELECT**

iii) Select Query with Logical Operators and Aggregate Function:

-- Select blood banks with more than 100 units of blood in stock and located in New York or Los Angeles

SELECT \* FROM blood\_bank

WHERE Quantity > 100 AND (Location = 'Nashik' OR Location = 'Pune');

| BloodBank\_ID | Location | Quantity |

|--------------|----------|----------|

| 1 | Nashik | 150 |

| 3 | Pune | 200 |

iv) Select Query with Number Function:

-- Select the average age of donors

SELECT AVG(Age) AS Average\_Age

FROM donor;

| Average\_Age |

|-------------|

| 42.5 |

v) Select Query with Logical Operator:

-- Select patients from hospitals located in 'Nashik' or 'Pune'

SELECT \* FROM patient

WHERE Hospital\_ID IN (SELECT Hospital\_ID FROM hospital WHERE Location IN ('Nashik', 'Pune'));

| Patient\_ID | Patient\_Name | Age | Admission\_Date | Discharge\_Date | Hospital\_ID |

|------------|------------------------|-------|------------------------|-----------------------|-----------------|

| 1 | Rajesh Patil | 26 | 2024-01-14 | 2024-01-19 | 1 |

| 2 | Akash Bhosale | 35 | 2024-02-15 | 2024-02-20 | 2 |

| 3 | Nilesh Patel | 50 | 2024-01-16 | 2024-01-18 | 1 |

**c) UPDATE**

vi) Update Query with Comparison Operator and Character Function:

-- Update the name of a donor with ID 1 to uppercase

UPDATE donor

SET Name = UPPER(Name)

WHERE Donor\_ID = 1;

vii) Update Query with Date Function:

-- Update the last donation date of a donor to the current date

UPDATE donor

SET Last\_Donation = CURRENT\_DATE

WHERE Donor\_ID = 1;

**d)DELETE**

viii) DELETE using Aggregate function:

-- Delete donors whose age is below the average age

DELETE FROM Donor

WHERE age < (SELECT AVG(age) FROM Donor);

ix)DELETE using Character function

-- Delete donors whose names start with the letter 'P'

DELETE FROM Donor

WHERE LEFT(donor\_name, 1) = 'P';

x) Delete Query with Date Function:

-- Deleting all patients admitted before a certain date

DELETE FROM Patient

WHERE Admission\_Date < DATE '2023-01-01';