**NAME : MANGESH A. GHADWAJE**

**ROLL NO:24**

**BATCH : B2**

**COURSE: DBMS PRACTICAL**

**Assignment No:-5**

**Problem Statement:-**

Design at least 10 SQL queries for suitable database application using SQL DML statements:

Demonstrate all types of Joins, Sub-Query and View.

Instruction: Use your own designed schema for the queries.

**Inner Join:**

SELECT p.patient\_name, b.blood\_bank\_name

FROM Patients p

INNER JOIN Blood\_Bank b ON p.blood\_type\_needed = b.available\_blood\_types;

patient\_name | blood\_bank\_name

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Ajay Patil | Spandan Blood Bank

Mangesh Ghadwaje | Life Care Blood Bank

**Left Join:**

SELECT d.donor\_name, p.patient\_name

FROM Donor d

LEFT JOIN Patients p ON d.blood\_type = p.blood\_type\_needed;

Donor\_name | patient\_name

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Sachin | Ajay Patil

Akash |

Kunal | Mangesh Ghadwaje

**Right Join:**

SELECT b.blood\_bank\_name, p.patient\_name

FROM Blood\_Bank b

RIGHT JOIN Patients p ON b.available\_blood\_types = p.blood\_type\_needed;

blood\_bank\_name | patient\_name

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Spandan Blood Bank | Ajay Patil

Life Care Blood Bank | Mangesh Ghadwaje

| Sachin Kumar

**Full Outer Join:**

SELECT \*

FROM Donor d

FULL OUTER JOIN Patients p ON d.blood\_type = p.blood\_type\_needed;

donor\_name | blood\_type | patient\_name | blood\_type\_needed

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Sachin | A+ | Ajay Patil | A+

Akash | AB- | |

Kunal | O- | Sachin Kumar | B+

**Subquery:**

SELECT donor\_name

FROM Donor

WHERE last\_donation\_date = (

SELECT MAX(last\_donation\_date)

FROM Donor

);

donor\_name

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Akash

Kunal

**View:**

CREATE VIEW Blood\_Donors AS

SELECT donor\_id, donor\_name, blood\_type

FROM Donor

WHERE last\_donation\_date >= '2024-01-01';

Blood\_Donors

donor\_id | donor\_name | blood\_type

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2 | Akash | AB-

3 | Kunal | O-

**Aggregate Function:**

SELECT blood\_type, COUNT(\*)

FROM Donor

GROUP BY blood\_type;

blood\_type | donor\_count

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A+ | 2

AB- | 3

O- | 2

**Conditional Join:**

SELECT b.blood\_bank\_name, p.patient\_name

FROM Blood\_Bank b

LEFT JOIN Patients p ON b.available\_blood\_types = p.blood\_type\_needed

WHERE p.admission\_date >= '2024-01-01';

Blood\_bank\_name | patient\_name

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Spandan Blood Bank | Ajay Patil

Life Care Blood Bank |

Lotus Blood Bank |

**Nested Join:**

SELECT \*

FROM (

SELECT donor\_name, blood\_type

FROM Donor

) AS d

JOIN (

SELECT patient\_name, blood\_type\_needed

FROM Patients

) AS p ON d.blood\_type = p.blood\_type\_needed;

donor\_name | blood\_type | patient\_name | blood\_type\_needed

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Akash | A+ | Ajay | A+

Kunal | AB- | |

**Cross Join (Cartesian Product):**

SELECT d.donor\_name, h.hospital\_name

FROM Donor d

CROSS JOIN Hospital h;

donor\_name | hospital\_name

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Akash | Divya Hospital

Kunal | Life Care Hospital

Sachin | Apollo Hospital

Khushal | Lotus Hospital