**LAB-4**

**Prepare Lab Sheet of MYSQL Statements for following.**

1. Create tables Teacher (Id INT PRIMARY KEY, Tname VARCHAR(20)) and Student (id INT PRIMARY KEY, Sname VARCHAR(20));

Ans:

**Query:**

CREATE TABLE Teacher (

Id INT PRIMARY KEY,

Tname VARCHAR(20)

);

CREATE TABLE Student (

Id INT PRIMARY KEY,

Sname VARCHAR(20)

);

**Result:**

**mysql> desc Teacher;**

+-------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+-------------+------+-----+---------+-------+

| Id | int | NO | PRI | NULL | |

| Tname | varchar(20) | YES | | NULL | |

+-------+-------------+------+-----+---------+-------+

2 rows in set (0.04 sec)

**mysql> desc Student;**

+-------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------+-------------+------+-----+---------+-------+

| Id | int | NO | PRI | NULL | |

| Sname | varchar(20) | YES | | NULL | |

+-------+-------------+------+-----+---------+-------+

2 rows in set (0.01 sec)

1. Insert values like {(“1,”Ram”), (2,”Hari”), (3,”Sita”)} in Teacher and {(“2,”Hari”), (3,”Sita”), (4,”Gita”)} in Student.

Ans:

**Query:**

INSERT INTO Teacher (Id, Tname) VALUES

(1, 'Ram'),

(2, 'Hari'),

(3, 'Sita');

INSERT INTO Student (Id, Sname) VALUES

(2, 'Hari'),

(3, 'Sita'),

(4, 'Gita');

**Result:**

mysql> select \*from teacher;

+----+-------+

| Id | Tname |

+----+-------+

| 1 | Ram |

| 2 | Hari |

| 3 | Sita |

+----+-------+

3 rows in set (0.00 sec)

mysql> select \*from Student;

+----+-------+

| Id | Sname |

+----+-------+

| 2 | Hari |

| 3 | Sita |

| 4 | Gita |

+----+-------+

3 rows in set (0.00 sec

1. Write query to find names of Union of Teacher and Student.

Ans:

Query:

SELECT Tname FROM Teacher UNION SELECT Sname FROM Student;

Result:

+-------+

| Tname |

+-------+

| Ram |

| Hari |

| Sita |

| Gita |

+-------+

4 rows in set (0.01 sec)

1. Write query to find intersection of names Teacher and Student using Distinct and Inner Join

Ans:

**Query:**

SELECT DISTINCT T.Tname FROM Teacher T INNER JOIN Student S ON T.Tname = S.Sname;

**Result:**

+-------+

| Tname |

+-------+

| Hari |

| Sita |

+-------+

2 rows in set (0.02 sec**)**

1. Write query to find intersection of names Teacher and Student using IN and Sub query

Ans:

**Query:**

SELECT Tname FROM Teacher WHERE Tname IN (SELECT Sname FROM Student);

**Result:**

+-------+

| Tname |

+-------+

| Hari |

| Sita |

+-------+

2 rows in set (0.01 sec)

1. Write query to find Teacher MINUS Student using Left Join

Ans:

**Query:**

SELECT T.Tname FROM Teacher T LEFT JOIN Student S ON T.Tname = S.Sname WHERE S.Sname IS NULL;

**Result:**

+-------+

| Tname |

+-------+

| Ram |

+-------+

1 row in set (0.01 sec

1. Find the number of offices in the Office table from the COMPANY Database in Lab-1 using COUNT function.

Ans:

**Query:**

SELECT COUNT(\*) AS office\_count FROM Office;

**Result:**

+--------------+

| office\_count |

+--------------+

| 5 |

+--------------+

1 row in set (0.06 sec)

1. Write a query to count the distinct names of Employees.

Ans:

**Query:**

SELECT COUNT(DISTINCT Ename) AS distinct\_name\_count FROM Employee;

**Result:**

+---------------------+

| distinct\_name\_count |

+---------------------+

| 5 |

+---------------------+

1 row in set (0.01 sec)

1. Write a query to find sum of salary of Employees.

Ans:

**Query:**

SELECT SUM(Salary) AS total\_salary FROM Employee;

**Result:**

+--------------+

| total\_salary |

+--------------+

| 200000.00 |

+--------------+

1 row in set (0.00 sec)

1. Write a query to find average of salary of Employees.

Ans:

**Query:**

SELECT AVG(Salary) AS average\_salary FROM Employee;

**Result:**

+----------------+

| average\_salary |

+----------------+

| 40000.000000 |

+----------------+

1 row in set (0.00 sec)

1. Write a query to find Maximum PF Amount from the PF Table.

Ans:

**Query:**

SELECT MAX(Amount) AS max\_pf\_amount FROM PF;

**Result:**

+---------------+

| max\_pf\_amount |

+---------------+

| 5000.00 |

+---------------+

1 row in set (0.04 sec)

1. Write a query to find Minimum PF Amount from the PF Table.

Ans:

**Query:**

SELECT MIN(Amount) AS min\_pf\_amount FROM PF;

**Result:**

+---------------+

| min\_pf\_amount |

+---------------+

| 1000.00 |

+---------------+

1 row in set (0.00 sec)