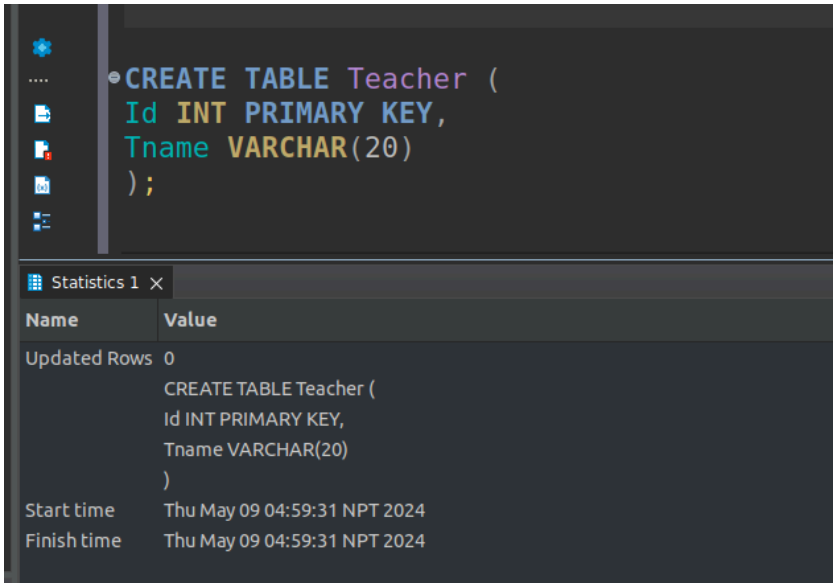
LAB 4 SET OPERATIONS & AGGREGATE FUNCTIONS

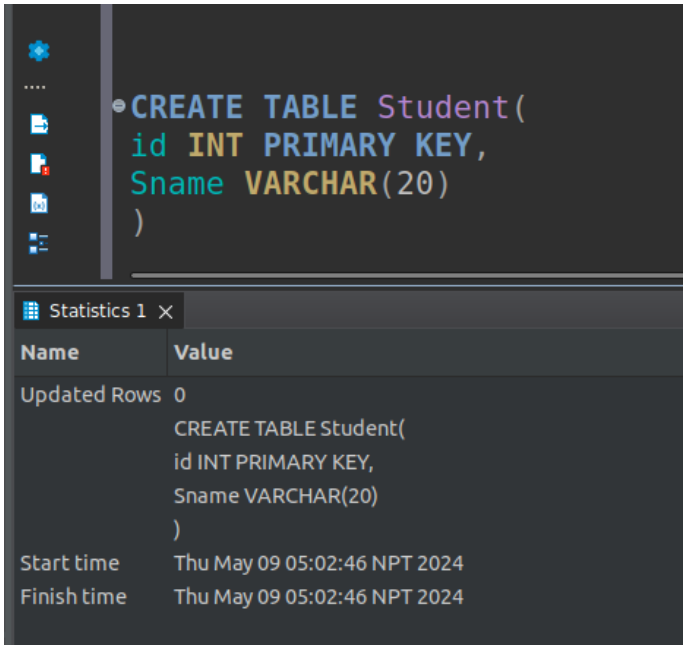
Prepare Lab Sheet of MYSQL Statements for the following.

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

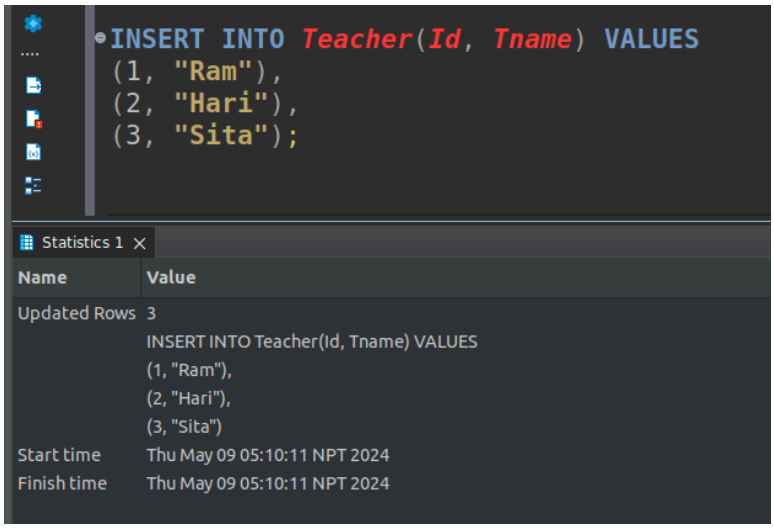
Teacher Table:

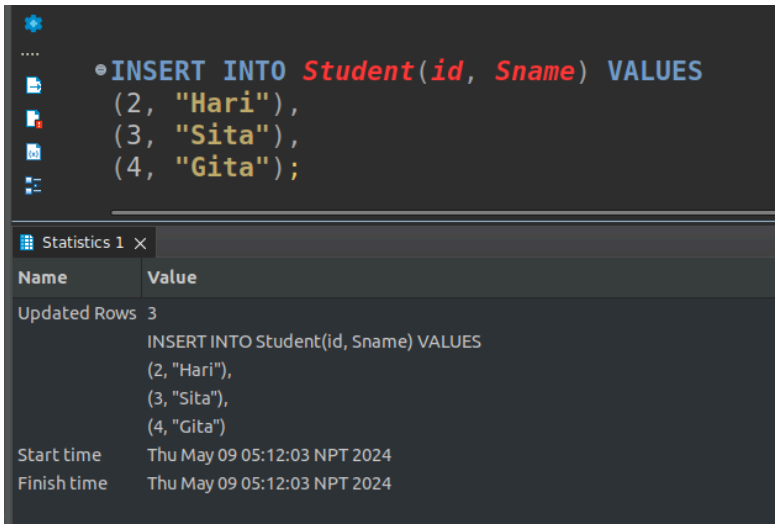


Student Table:

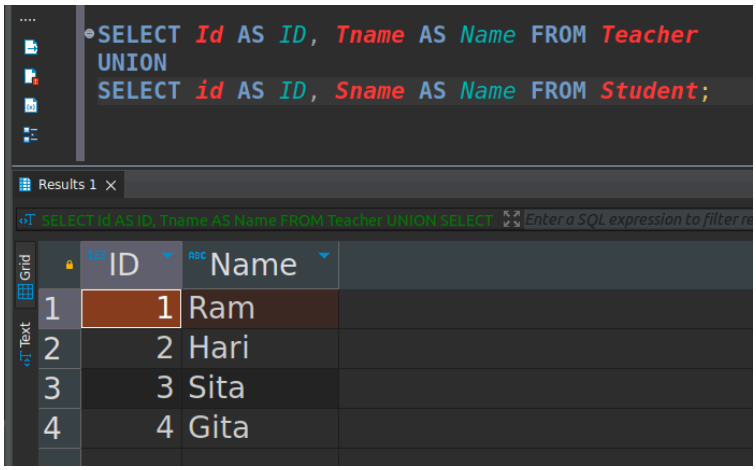


2. Insert values like {(1, ”Ram”), (2, ”Hari”), (3, ”Sita”)} in Teacher and {(“2, ”Hari”), (3, ”Sita”), (4, ”Gita”)} in Student.





3. Write a query to find the Union of “Teacher” and “Student” tables.



```
SELECT Id AS ID, Tname AS Name FROM Teacher
INTERSECT
SELECT id AS ID, Sname AS Name FROM Student;
```

Results 1

	ID	Name
1	2	Hari
2	3	Sita

4. Write a query to find the Intersection of Teacher and Student.

5. Write a query to find the intersection of the names Teacher and Student using Distinct and Inner Join.

```
SELECT DISTINCT Teacher.Tname AS Name
FROM Teacher
INNER JOIN Student ON Teacher.Tname = Student.Sname;
```

Teacher 1

	Name
1	Hari
2	Sita

6. Write a query to find the intersection of names Teacher and Student using IN and Sub query

```
SELECT Tname FROM Teacher WHERE
TName IN (
SELECT SName FROM Student
);
```

Teacher 1

	Tname
1	Hari
2	Sita

7. Write a query to find Teacher MINUS Student using Left Join

```
SELECT Teacher.* FROM Teacher LEFT JOIN Student
 ON Teacher.Id = Student.id WHERE Student.id IS NULL;
```

Teacher 1

SELECT Teacher.* FROM Teacher LEFT JOIN Student ON Teacher. Enter a SQL expression to filter results (use Ctrl

	Id	Tname
1	1	Ram

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

```
SELECT COUNT(Oname) AS number_of_offices FROM Office;
```

Results 1

SELECT COUNT(Oname) FROM Office Enter a SQL expression to filter results (use Ctrl+Space)

	COUNT(Oname)
1	10

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

```
SELECT DISTINCT COUNT(Ename) AS distinct_names_count FROM EMPLOYEE e;
```

Results 1

SELECT DISTINCT COUNT(Ename) AS distinct_names_count FRO Enter a SQL expression to filter results (use Ctrl+Space)

	distinct_names_count
1	9

10. Write a query to find the sum of the salary of Employees.

```
SELECT SUM(Salary) AS salary_sum FROM EMPLOYEE;
```

Results 1

	salary_sum
1	685,000

11. Write a query to find the average salary of Employees.

```
SELECT AVG(Salary) AS average_salary FROM EMPLOYEE;
```

Results 1

	average_salary
1	76,111.111111

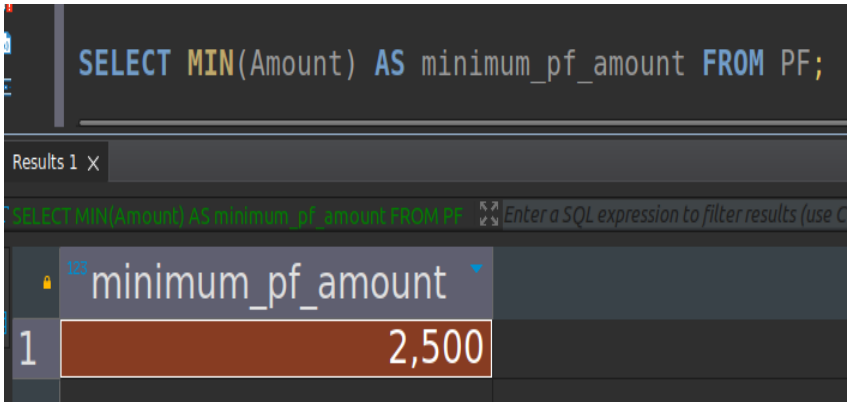
12. Write a query to find the Maximum PF Amount from the PF Table.

```
SELECT MAX(Amount) AS maximum_pf_amount FROM PF;
```

Results 1

	maximum_pf_amount
1	6,000

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


SELECT MIN(Amount) AS minimum_pf_amount FROM PF;
Results 1
SELECT MIN(Amount) AS minimum_pf_amount FROM PF
Enter a SQL expression to filter results (use C
123 minimum_pf_amount
1
2,500