Dt: 9/9/25 Task: Writing Join Queries, Equivalent, AND/OR RECURSIVE QUERIES.

Aim: To implement Join queries, equivalent queries and recursive queries using university database scenario.

Procedure:
* Create database and tables.
* Insert sample data.
* Write sql queries using diff types of Joins
* Implement recursive query.
* Display results

Step 1:
Types of joins: 1) Simple 2) Self 3) Outer

1) Simple Join:

i) Equi Join:-

query:- select * from employees, night_shift where employees.empid = night_shift.empid;

output:

emp_id	emp_name	company	salary	Age	Join_date
10	Ritheesh	TCS	10000	21	2018-07-06
11	Arun	HCL	1000	19	2020-07-06
101	Ram	DHL	2000	20	2021-08-01

ii) Non-equi join:-

select * from employees, night_shift where employees.Age < night_shift.age;

-> Inner Join:

select e.emp_name, n.age from employee e INNER JOIN night_shift n on e.emp id = n.emp id;

emp name	age
Ritheesh	21
Arun	19
Ram	20

Outer Join:

-> Left Join:-

select e.emp_name from employee e left Join right_shift n on e.empid = n.empid;

output:

emp_name
Ritheesh
Arun
Ram
Gnanesh

-> Right Join:

Select e.empid, n.age from employees e Right Join right_shift n on e.empid = n.empid.

output:

emp_id	age
10	21
11	19
101	20
NULL	22

-> Full outer join not in MySQL:-

select e.empname, n.company from employees e FULL OUTER JOIN right_shift n on e.empid=n.empid;

output:

emp_name	Company
Ritheesh	TCS
Arun	HCL
Ram	DHL
Gnanesh	NULL
Ramya	NULL
NULL	Amazon

→ Equivalent queries:-

```
select e.empname, n.salary from employees e
join right_shift n on e.empid = n.empid;
```

output:

empname	salary
Pitheesh	10000
Arun	1000
Ram	2000

→ Recursive query:-

```
with recursive comp23 (select empname, empid
from employees UNION select e.empname, n.empid
from employees e JOIN comp C ON e.empid = n.
empid)
select * from comp;
```

output:

empname	empid
Pitheesh	10
Arun	11
Ram	101

VEL TECH CSE	
EX NO	5
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	—
TOTAL (20)	15
SIGN WITH DATE	

Result:

Thus, the implementation of JOIN, equivalent and recursive queries using employee details database was completed successfully.