**PG-DAC AUGUST 25**

**Assignment No- 5**

**Write Create a Employee ,Department & Project Tables .Add atleast 5 records in each table & Write a following Queries.**

1. Write a Relational Algebra expression to perform **Cartesian Product (Cross Join)** between Emp and Dept tables.
2. Write a SQL query to perform an **INNER JOIN** between Emp and Dept tables displaying EmpName and DeptName.
3. Write a SQL query to perform a **LEFT OUTER JOIN** between Emp and Dept tables to display all employees along with their department information, including employees without a department.
4. Write a SQL query to perform a **RIGHT OUTER JOIN** between Emp and Dept tables.
5. Write a SQL query to perform a **NATURAL JOIN** between Emp and Dept.
6. Write a SQL query to perform a **CROSS JOIN** between Emp and Project table.
7. Write a SQL query to **create a new table EmpBackup with the same structure as Emp but no data**.
8. Write a SQL query to **copy all data from Emp into EmpBackup table**.
9. Write a SQL query to **create a new table ProjectArchive with the same structure and data as Project**.
10. Write a SQL query to create an **AUTO\_INCREMENT sequence for EmpID in the Emp table** during table creation.
11. Write a SQL query using a **subquery** to find all employees whose salary is greater than the **average salary of all employees**.
12. Write a SQL query using a **subquery in WHERE clause** to find employees working in departments located in 'Mumbai'.
13. Write a SQL query to display all departments where the number of employees is greater than **5**, using a subquery.
14. Write a subqueries for find out Max salary of employee.
15. Write a self join query for each table.