**PgSQL**

**DDL,DML,DCL,TCL,DQL**

1)\l

Displays the list of databases.

2)\dt

Displays the list of tables

3) create database data\_science;

4)\c data\_science;

This connects to the database;

5)Creating table

Create table students(

stud\_id int primary key,

name varchar(30),

dept varchar(40),

gender char,

age int);

6)Inserting values

insert into students values(1,'Anu','AI&DS','F',20);

//don’t use “ ” for adding varchar values.Use only ‘ ‘ single quotes.

**7)ALTER**

**Adding column:**

alter table students add column cgpa float;

**Changing table name:**

alter table students rename to stud\_details;

**Changing column name:**

alter table stud\_details

rename dept to department;

**8)To view table description**

/d table\_name;

**9)Update**

update stud\_details

set cgpa=9.7 where stud\_id=1;

**10)Delete**

insert into stud\_details values(4,'Danu','EEE','F',20,8.7);delete from stud\_details where stud\_id=4;

**11)Truncate**

Used to delete only the data in the table.

->truncate table stud\_details;

12)Delete columns

alter table stud\_details

drop column cgpa;

**13)Order by**

select\*from stud\_details order by age desc;

**14)Limit**

select\*from stud\_details limit 2;

**15)LIKE**

select \*from stud\_details where name like '%a'; //names ending with a.

select \*from stud\_details where name like '%l%';

**16)MIN AND MAX LENGTH NAME**

select name,length(name) from stud\_details order by length(name),name limit 1;

op: Min length name

|  |  |
| --- | --- |
| Name | Length(name) |
| Anu | 3 |

Max length name

select name,length(name) from stud\_details order by length(name)desc ,name limit 1;

**JOINS**

**1)INNER JOIN**

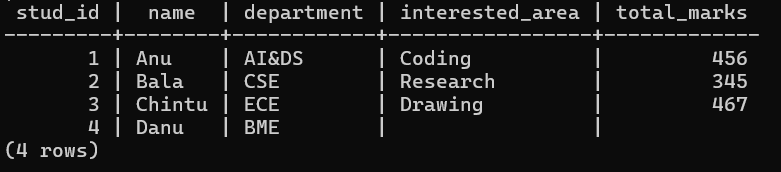
Displays only the matching column.

Select stud\_details.stud\_id,stud\_details.name,stud\_details.department,stud\_marks.interested\_area,stud\_marks.total\_marks from stud\_details Inner join stud\_marks on stud\_details.stud\_id=stud\_marks.stud\_id;

**2)LEFT JOIN**

Displays the matching columns and also the non matching columns in the left table.

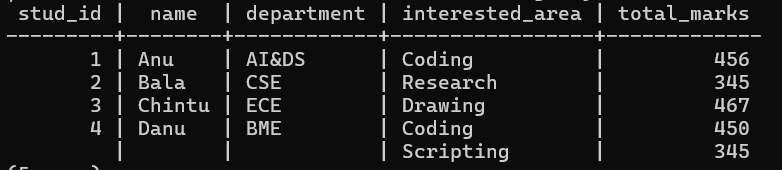
select stud\_details.stud\_id,stud\_details.name,stud\_details.department,stud\_marks.interested\_area,stud\_marks.total\_marks from stud\_details LEFT join stud\_marks on stud\_details.stud\_id=stud\_marks.stud\_id;



**3)RIGHT JOIN**

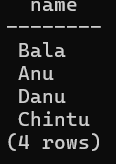
Displays the matching columns and also the non matching columns in the right table.

select stud\_details.stud\_id,stud\_details.name,stud\_details.department,stud\_marks.interested\_area,stud\_marks.total\_marks from stud\_details right join stud\_marks on stud\_details.stud\_id=stud\_marks.stud\_id;



->Query the Name of any student in **stud\_details** .Order your output by the last three characters of each name. If two or more students both have names ending in the same last three characters (i.e.: Bobby, Robby, etc.), secondary sort them by ascending ID.

select name from stud\_details order by right(name,2),stud\_id asc;



**WINDOW FUNCTIONS**

**RANGE,DENSE\_RANGE,ROW\_NUMBER**

select emp\_id,name,salary,dept,

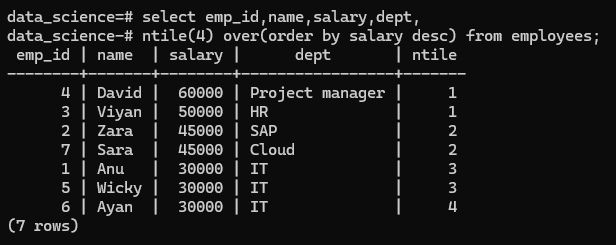
rank() over(order by salary desc) as rank,

dense\_rank() over(order by salary desc) as dense\_rank,

row\_number() over(order by salary desc) as row from employees;



**NTILE**

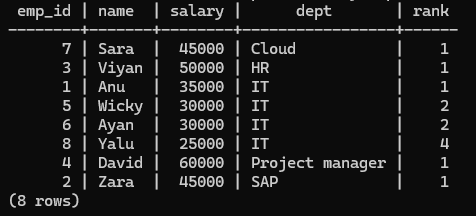
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**PARTITION**

**\*Rank() with partition**

select emp\_id,name,salary,dept,

rank() over(partition by dept order by salary desc) from employees;



**\*Dense\_rank() with partition**

select emp\_id,name,salary,dept,

dense\_rank() over(partition by dept order by salary desc) from employees;

