Lab Assignment-5



Name - Rachit Goyal Roll.no - 101918056 CSBS/BS-3

DEPTN0	DNAME
10	Acc
20	comp
30	elec

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3 rows selected.

EMPNO	ENAME	J0B	SAL	DEPTNO
101	RAM	Prof	20000	10
102	ROHAN	AP	43000	20
104	PREET	Lect	55000	10
105	TEJAS	Lect	36000	30

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4 rows selected.

1. List the total number of employees?

select count(*) from emp;

```
27  select * from emp;
28  select count(*) from emp;
29  select count(*) from dept;
30  select sum(sal), max(sal), min(sal) from emp where deptno = 30;
31  select ename from emp where sal=(select max(sal) from emp);
32  select deptno, sum(sal) total_sal from emp group by deptno;
COUNT(*)
4
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```

2. List the total no of departments?

select count(*) from dept;

```
27  select * from emp;
28  select * from dept;
29  select count(*) from emp;
30  select count(*) from dept;
31  select sum(sal), max(sal), min(sal) from emp where deptno = 30;
32  select ename from emp where sal=(select max(sal) from emp);

COUNT(*)
3
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```

3. List the total, maximum, & minimum salary where deptno is 30?

select sum(sal), max(sal), min(sal) from emp where deptno = 30;

```
27 select * from emp;
28 select * from dept;
29 select count(*) from emp;
30 select count(*) from dept;
31 select sum(sal), max(sal), min(sal) from emp where deptno = 30;
32 select ename from emp where sal=(select max(sal) from emp);

SUM(SAL) MAX(SAL) MIN(SAL)
36000 36000 36000

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```

4. Display the name of the employee getting maximum salary?

select ename from emp where sal=(select max(sal) from emp);

```
28  select * from dept;
29  select count(*) from emp;
30  select sum(sal), max(sal), min(sal) from emp where deptno = 30;
31  select ename from emp where sal=(select max(sal) from emp);
33  select deptno,sum(sal) total_sal from emp group by deptno;
ENAME

PREET

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```

5. Display the total salary for each department?

select deptno, sum(sal) total sal from emp group by deptno;

```
select deptno,sum(sal) total_sal from emp group by deptno;
34
35
36 select job, sum(sal) total_sal from emp group by job;
37
38 select deptno, job, sum(sal) as "total salary" from emp group by deptno, job;
39
40
   select avg(sal), job from emp where deptno = 20 group by job;
41
42
43
   select job, sum(sal) as "total" from emp where job<>'Manager' group by job;
44
45
   select job,avg(sal) from emp where deptho = 20 group by job having sum(sal)>20
46
```

DEPTN0	TOTAL_SAL
30	36000
10	75000
20	43000

6. Display the total salary for each job.

select job, sum(sal) total_sal from emp group by job;

```
select job, sum(sal) total_sal from emp group by job;
36
37
38
   select deptno,job,sum(sal) as "total salary" from emp group by deptno,job;
39
40
   select avg(sal), job from emp where deptno = 20 group by job;
41
42
43
   select job, sum(sal) as "total" from emp where job<> 'Manager' group by job;
44
45
   select job,avg(sal) from emp where deptno = 20 group by job having sum(sal)>20
46
```

ЈОВ	TOTAL_SAL
Lect	91000
AP	43000
Prof	20000
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3 rows selected.

7. Display the total salary for each job within each department.

select deptno,job,sum(sal) as "total salary" from emp group by deptno,job;

```
select deptno,job,sum(sal) as "total salary" from emp group by deptno,job;

select avg(sal),job from emp where deptno = 20 group by job;

select job,sum(sal) as "total" from emp where job<>'Manager' group by job;

select job,avg(sal) from emp where deptno = 20 group by job having sum(sal)>20
```

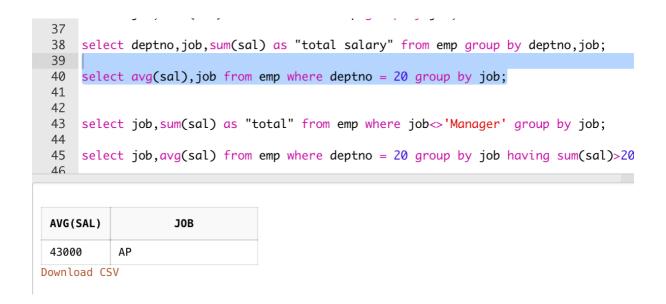
DEPTNO	ЈОВ	total salary
20	AP	43000
30	Lect	36000
10	Prof	20000
10	Lect	55000

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4 rows selected.

8. Display the average salary for each job in deptno 20.

select avg(sal),job from emp where deptno = 20 group by job;



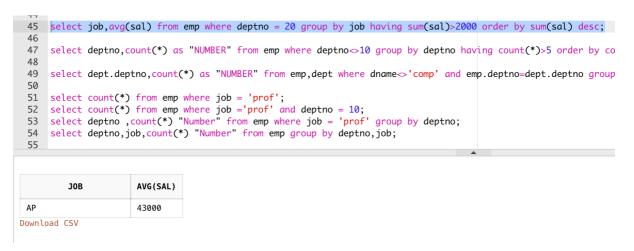
9. Display the total salary for each job excluding the 'manager' job.

select job,sum(sal) as "total" from emp where job<>'Manager' group by job;

```
select avg(sal), job from emp where deptno = 20 group by job;
 41
 43 | select job, sum(sal) as "total" from emp where job<>'Manager' group by job;
 44
 45
     select job,avg(sal) from emp where deptno = 20 group by job having sum(sal)>20
         J0B
                       total
 Lect
                       91000
 \mathsf{AP}
                       43000
 Prof
                       20000
Download CSV
3 rows selected.
```

10. Display the average salary for each job in deptno 20, but only display those jobs where total salary is greater than 2000 & display the output in descending order of salary?

select job,avg(sal) from emp where deptno = 20 group by job having sum(sal)>2000 order by sum(sal) desc;



11. Display the total no of employees for each department excluding the dno 10 & display only those departments where more then five (5) employees work. Display the output in descending order of total no of employees?

select deptno,count(*) as "NUMBER" from emp where deptno<>10 group by deptno having count(*)>5 order by count(*) desc;

```
46
47
select deptno,count(*) as "NUMBER" from emp where deptno<10 group by deptno having count(*)>5 order by count(*) desc;
48
49
select dept.deptno,count(*) as "NUMBER" from emp,dept where dname<>'comp' and emp.deptno=dept.deptno group by dept.dept
50
51
select count(*) from emp where job = 'prof';
52
select count(*) from emp where job = 'prof' and deptno = 10;
53
select deptno,count(*) "Number" from emp where job = 'prof' group by deptno;
54
select deptno,job,count(*) "Number" from emp group by deptno,job;
```

12. Display the total no of employees for each department excluding the comp dept & display only those departments where more then five (5) employees work. Display the output in descending order of total no of employees?

select dept.deptno,count(*) as "NUMBER" from emp,dept where dname<>'comp' and emp.deptno=dept.deptno group by dept.deptno having count(*)>5 order by dept.deptno desc;

```
select deptno,count(*) as "NLMBER" from emp where deptno<10 group by deptno having count(*)>5 order by count(*) desc;

select dept.deptno,count(*) as "NLMBER" from emp,dept where dname<br/>
'comp' and emp.deptno-dept.deptno group by dept.deptno having count(*)>5 order by dept.deptno desc;

select count(*) from emp where job = 'prof';

select count(*) from emp where job = 'prof' and deptno = 10;

select deptno,count(*) "Number" from emp where job = 'prof' group by deptno;

select deptno,count(*) "Number" from emp group by deptno,job;
```

13. Display total number of prof in univ.

select count(*) from emp where job = 'prof';

14. Display total number of prof in deptno 10.

select count(*) from emp where job ='prof' and deptno = 10;

```
51    select count(*) from emp where job = 'prof';
52    select count(*) from emp where job = 'prof' and deptno = 10;
53    select deptno ,count(*) "Number" from emp where job = 'prof' group by deptno;
54    select deptno,job,count(*) "Number" from emp group by deptno,job;

COUNT(*)
0
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```

15. Display total number of prof in each dept.

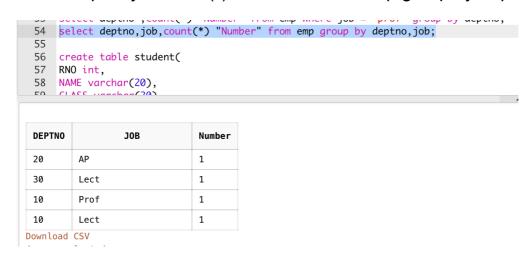
select deptno ,count(*) "Number" from emp where job = 'prof' group by deptno;

```
51 select count(*) from emp where job = 'prof';
52 select count(*) from emp where job = 'prof' and deptno = 10;
53 select deptno ,count(*) "Number" from emp where job = 'prof' group by deptno;
54 select deptno,job,count(*) "Number" from emp group by deptno,job;
55

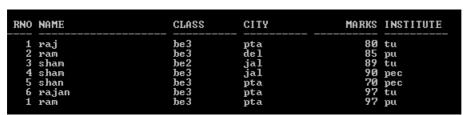
no data found
```

16. Display total number of emp working in each job in each dept.

select deptno,job,count(*) "Number" from emp group by deptno,job;



Queries based on Student Table



create table student(

```
RNO int,

NAME varchar(20),

CLASS varchar(20),

CITY varchar(20),

MARKS int,

INSTITUTE varchar(20)
);

insert into student values(1,'raj','be3','pta',80,'tu');

insert into student values(2,'ram','be3','del',85,'pu');

insert into student values(3,'sham','be2','jal',89,'tu');

insert into student values(4,'sham','be3','jal',90,'pec');

insert into student values(5,'shan','be3','pta',70,'pec');

insert into student values(6,'rajan','be3','pta',97,'tu');

insert into student values(7,'ram','be3','pta',97,'pu');
```

RNO	NAME	CLASS	CITY	MARKS	INSTITUTE
1	raj	be3	pta	80	tu
2	ram	be3	del	85	pu
3	sham	be2	jal	89	tu
4	sham	be3	jal	90	pec
5	shan	be3	pta	70	pec
6	rajan	be3	pta	97	tu
7	ram	be3	pta	97	pu

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17. List the total number of students from each city.

select count(*), city from student group by city;

```
74 | select count(*), city from student group by city;
75 | select city from student having count(*)=(select max(
76 | select institute from student having count(*)=(select
77 | select institute from student where marks in (select
78 | select institute from student where institute<>'tu' | r
79
```

COUNT(*)	CITY	
4	pta	
1	del	
2	jal	

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18. Name of city having max students.

select city from student having count(*)=(select max(count(*))as "total" from student group by city)group by city;

```
Fig. 2. Select city from student having count(*)=(select max(count(*))as "total" from student group by city)group by city;

select institute from student having count(*)=(select min(count(*))as "total" from student group by institute)group by institute;

select institute from student where marks in (select max(marks) from student);

select institute from student where institute<>'tu' having count(*)>5 group by institute;

CITY

pta

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```

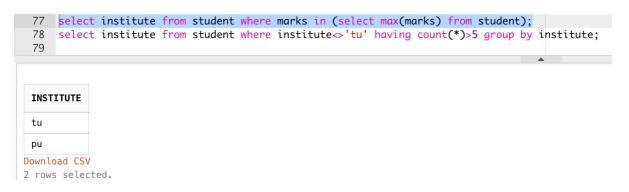
19. Name of Institute having min students.

select institute from student having count(*)=(select min(count(*))as "total" from student group by institute)group by institute;



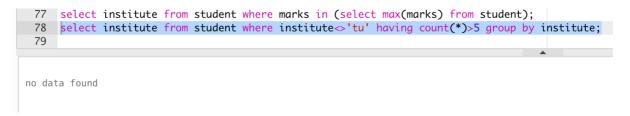
20. Name of Institute whose student got max marks.

select institute from student where marks in (select max(marks) from student);



21. Name of institute having more than 5 students excluding 'tu'.

select institute from student where institute<>'tu' having count(*)>5 group by institute;



```
Code-
create table dept(
deptno int primary key,
dname char(20) check (dname in ('Acc','comp','elec'))
);
insert into dept values(10,'Acc');
insert into dept values(20,'comp');
insert into dept values(30,'elec');
insert into dept values(40,'man');
create table emp(
empno int PRIMARY KEY,
ename varchar(20) constraint name emp UNIQUE,
job char(20) check (job in ('Prof','AP','Lect')),
sal int constraint sal con not null,
deptno int constraint fkey references dept(deptno)
);
insert into emp values(101, 'RAM', 'Prof', 20000, 10);
insert into emp values(102, 'ROHAN', 'AP', 43000, 20);
```

insert into emp values(103, 'RAJESH', 'PROF', 15000, 30);

```
insert into emp values(104,'PREET','Lect',55000,10);
insert into emp values(105, 'TEJAS', 'Lect', 36000, 30);
insert into emp values(106, 'TARAN', 'PA', 29000, 40);
select count(*) from emp;
select count(*) from dept;
select sum(sal), max(sal), min(sal) from emp where deptno = 30;
select ename from emp where sal=(select max(sal) from emp);
select deptno, sum(sal) total sal from emp group by deptno;
select job, sum(sal) total sal from emp group by job;
select deptno,job,sum(sal) as "total salary" from emp group by
deptno,job;
select avg(sal),job from emp where deptno = 20 group by job;
select job, sum(sal) as "total" from emp where job<>'Manager' group by
job;
select job,avg(sal) from emp where deptno = 20 group by job having
sum(sal)>2000 order by sum(sal) desc;
select deptno,count(*) as "NUMBER" from emp where deptno<>10
group by deptno having count(*)>1 order by count(*) desc;
select dept.deptno,count(*) as "NUMBER" from emp,dept where
dname<>'comp' and emp.deptno=dept.deptno group by dept.deptno
having count(*)>5 order by dept.deptno desc;
select count(*) from emp where job = 'prof';
select count(*) from emp where job ='prof' and deptno = 10;
```

```
select deptno ,count(*) "Number" from emp where job = 'prof' group by
deptno;
select deptno,job,count(*) "Number" from emp group by deptno,job;
create table student(
RNO int,
NAME varchar(20),
CLASS varchar(20),
CITY varchar(20),
MARKS int,
INSTITUTE varchar(20)
);
insert into student values(1,'raj','be3','pta',80,'tu');
insert into student values(2,'ram','be3','del',85,'pu');
insert into student values(3,'sham','be2','jal',89,'tu');
insert into student values(4,'sham','be3','jal',90,'pec');
insert into student values(5,'shan','be3','pta',70,'pec');
insert into student values(6, 'rajan', 'be3', 'pta', 97, 'tu');
insert into student values(7,'ram','be3','pta',97,'pu');
select count(*), city from student group by city;
select city from student having count(*)=(select max(count(*))as "total"
from student group by city)group by city;
```

select institute from student having count(*)=(select min(count(*))as "total" from student group by institute)group by institute; select institute from student where marks in (select max(marks) from student); select institute from student where institute<>'tu' having count(*)>5 group by institute;