---- SUNEET PAUL SINGH ----

---- ASSIGMENT 5 ----

use collage;

select * from employees;

emp_id	emp_name	dept_id
1	Alice	10
2	Bob	20
3	Charlie	30
4	David	10
5	Eve	40

select * from department;

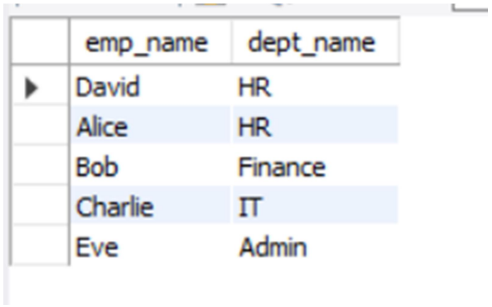
dept_id	dept_name
10	HR
20	Finance
30	IT
40	Admin
50	Marketing

select * from project;

proj_id	emp_id	proj_name
101	1	Alpha
102	2	Beta
103	3	Gamma
104	4	Delta

#1. Write a query to get Employee and Department details using join.

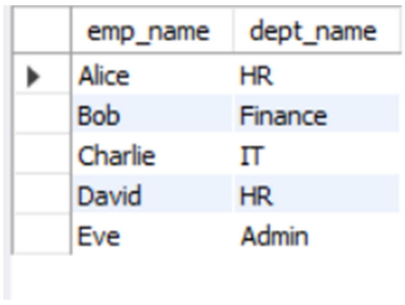
```
select emp_name ,dept_name
from employees  e
join department d
on e.dept_id = d.dept_id;
```



emp_name	dept_name
David	HR
Alice	HR
Bob	Finance
Charlie	IT
Eve	Admin

#2. Write a query to retrieve all employees with their departments, even if the department is missing.

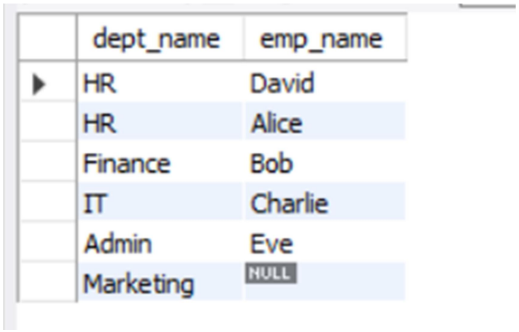
```
select emp_name ,dept_name
from employees  e
left join department d
on e.dept_id = d.dept_id;
```



emp_name	dept_name
Alice	HR
Bob	Finance
Charlie	IT
David	HR
Eve	Admin

#3. Write a query to get department details even if there are no employees in that department.

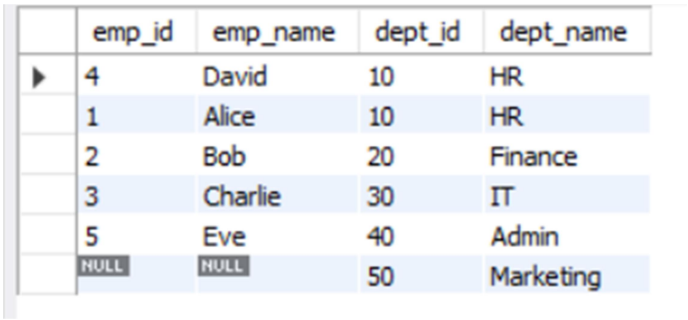
```
select dept_name , emp_name

from  department  d

left join employees e

on e.dept_id = d.dept_id;
```



dept_name	emp_name
HR	David
HR	Alice
Finance	Bob
IT	Charlie
Admin	Eve
Marketing	NULL

#4. Write a query to get all employees and departments, whether matched or not.

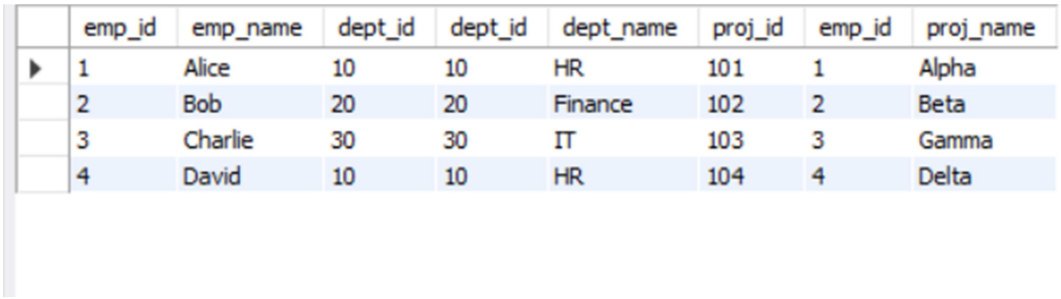
```
select emp_id ,  emp_name , d.dept_id , dept_name

from employees e

right join department d

on e.dept_id = d.dept_id;
```



emp_id	emp_name	dept_id	dept_name
4	David	10	HR
1	Alice	10	HR
2	Bob	20	Finance
3	Charlie	30	IT
5	Eve	40	Admin
NULL	NULL	50	Marketing

#5. JOIN three tables (Employees, Departments, Projects) to get employee, department, and project information.

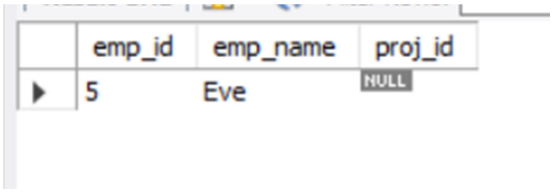
```
select *

from employees e

join department d

on e.dept_id= d.dept_id

join project p

on e.emp_id= p.emp_id;
```



emp_id	emp_name	dept_id	dept_id	dept_name	proj_id	emp_id	proj_name
1	Alice	10	10	HR	101	1	Alpha
2	Bob	20	20	Finance	102	2	Beta
3	Charlie	30	30	IT	103	3	Gamma
4	David	10	10	HR	104	4	Delta

#6. Find employees who are not assigned to any projects.

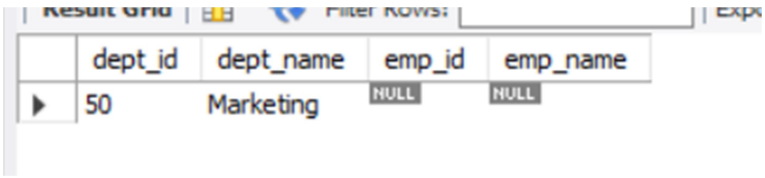
```
select e.emp_id , emp_name , proj_id

from employees e

left join project p

on e.emp_id= p.emp_id

where p.proj_id is null;
```



emp_id	emp_name	proj_id
5	Eve	NULL

#7. Find departments with no employees using a RIGHT JOIN.

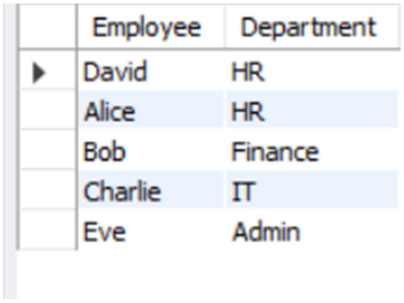
```
select d.dept_id , dept_name , emp_id , emp_name
from employees e
right join department d
on e.dept_id = d.dept_id
where e.dept_id is null;
```



dept_id	dept_name	emp_id	emp_name
50	Marketing	NULL	NULL

#8. Write a query to get Employee and Department details using join with aliases.

```
select emp_name as Employee , dept_name as Department
from employees e
join department d
on e.dept_id = d.dept_id;
```

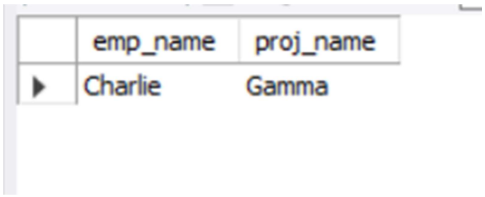


Employee	Department
David	HR
Alice	HR
Bob	Finance
Charlie	IT
Eve	Admin

#9. Write a query to find employees in the same department as other employees.

#10. Write a query to find projects managed by employees in the 'IT' department.

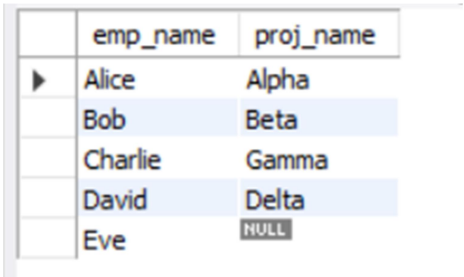
```
select emp_name , proj_name

from employees e

join project p

on e.emp_id = p.emp_id

join department d

on e.dept_id = d.dept_id

where dept_name = 'IT';
```



emp_name	proj_name
Charlie	Gamma

#11. Write a query to show employees and their project information (even if not assigned to a project).

```
select emp_name , proj_name

from employees e

left join project p

on e.emp_id = p.emp_id;
```



emp_name	proj_name
Alice	Alpha
Bob	Beta
Charlie	Gamma
David	Delta
Eve	NULL

#12. Find employees who work in departments with names starting with 'A'.

```
select emp_name , dept_name
from employees e
join department d
on e.dept_id = d.dept_id
where emp_name like  "A%";
```

emp_name	dept_name
Alice	HR

#13. Find the total number of employees in each department using GROUP BY and JOIN.

```
select count(emp_id) as number , dept_name
from employees e
left join department d
on e.dept_id = d.dept_id
group by d.dept_name ;
```

number	dept_name
2	HR
1	Finance
1	IT
1	Admin

#14. Get the list of departments with more than one employee.

```
select count(emp_id) , dept_name
from employees e
left join department d
on e.dept_id = d.dept_id
group by d.dept_name having count(emp_id) >1;
```

	count(emp_id)	dept_name
▶	2	HR

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