create database joins;

use joins;

drop database joins;

create table employee(

emp\_id int primary key auto\_increment,

emp\_name varchar(50),

dept\_id int,

salary int);

insert into employee(emp\_name,dept\_id,salary)

values("Alice",101,6000),

("Bob",102,7000),

("Charlie",103,8000),

("David",101,7500),

("Eve",102,8500);

create table departments(

dept\_id int,

dept\_name varchar(50));

insert into departments(dept\_id,dept\_name)

values(101,"HR"),

(102,"Sales"),

(103,"IT"),

(104,"Marketing");

create table projects(

project\_id int,

project\_name varchar(30),

dept\_id int);

insert into projects(project\_id,project\_name,dept\_id)

values(1,"Project A", 101),

(2,"Project B",102),

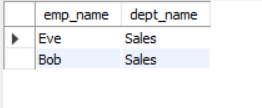
(3,"Project C",103),

(4,"Project D",104);

#find all employee who work in sales department

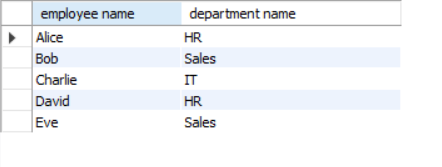
select employee.emp\_name, departments.dept\_name from employee

right join departments on employee.dept\_id=departments.dept\_id where departments.dept\_name="Sales";



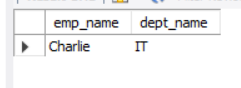
# Find departments name who have employees

select employee.emp\_name as "employee name",departments.dept\_name as "department name" from employee Inner Join departments on departments.dept\_id = employee.dept\_id;



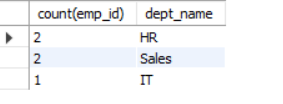
# #find the employees who have salary hiher than 7500 and work in project an an it department

select employee.emp\_name,departments.dept\_name from employee inner join departments on employee.dept\_id = departments.dept\_id where dept\_name="IT"and salary>7500;



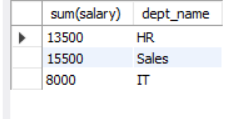
# #find number of employees in each department

select count(emp\_id),departments.dept\_name as"dept\_name" from employee Inner Join departments on employee.dept\_id = departments.dept\_id group by dept\_name;



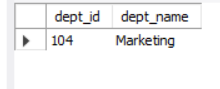
# Get total salary of each department

select sum(salary),departments.dept\_name as"dept\_name" from employee Inner Join departments on employee.dept\_id = departments.dept\_id group by dept\_name;



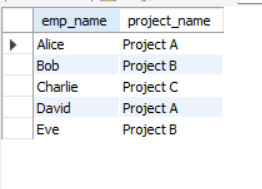
# Find all departments that have no employees

SELECT departments.dept\_id, departments.dept\_name FROM departments LEFT JOIN employee ON departments.dept\_id = employee.dept\_id WHERE Employee.dept\_id IS NULL;



# list the employee names and their respective project names

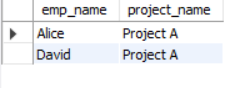
select employee.emp\_name,projects.project\_name from employee inner join projects on employee.dept\_id=projects.dept\_id;



# Find the employee and project name for employees in 'HR' department

select employee.emp\_name,projects.project\_name from employee inner join departments on departments.dept\_id = employee.dept\_id

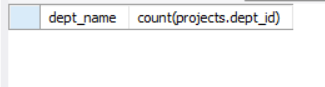
inner join projects on employee.dept\_id=projects.dept\_id where departments.dept\_name="HR";



# Retrive departments with more than 1 project assigned

select departments.dept\_name,count(projects.dept\_id)from projects right join departments on projects.dept\_id=departments.dept\_id

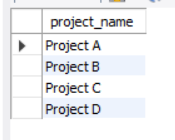
group by departments.dept\_name having count(projects.dept\_id)>1;



# Retrive departments with 1 project assigned

select projects.project\_name from departments left join projects on departments.dept\_id=projects.dept\_id

group by projects.project\_name having count(departments.dept\_id)=1;

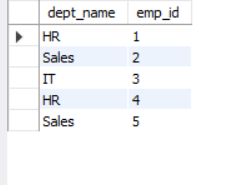


# Find employees who work in departments that are not assigned any projects

select departments.dept\_name,employee.emp\_id from employee left join departments on employee.dept\_id=departments.dept\_id

left join projects on departments.dept\_id=projects.dept\_id

group by departments.dept\_name,employee.emp\_id having count(projects.dept\_id)=1;

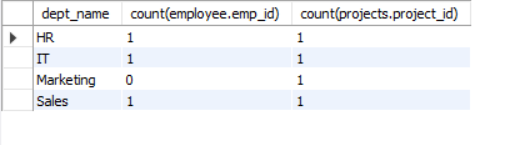


# List the departments along with the number of employees and projects

select distinct(departments.dept\_name),count(employee.emp\_id),count(projects.project\_id) from departments left join employee on departments.dept\_id=employee.dept\_id

left join projects on departments.dept\_id=projects.dept\_id

group by departments.dept\_name,employee.emp\_id,projects.project\_id;



# Get the department name and total salary spent on employees for departments with at least 2employees

select d.dept\_name,count(e.emp\_id),sum(salary) from departments d inner join employee e on d.dept\_id=e.dept\_id group by dept\_name having count(emp\_id)=2;

