Employee Database

Create Database:

create database Employee_details;

use Employee_details;

create table Project(Pno int primary key , Ploc varchar(20) , Pname varchar(20));

create table Dept(Dept_no int primary key , Dname varchar(20) , Dloc varchar(20));

create table Employee(empno int primary key , ename varchar(20) ,mgr_no int , hiredate date , sal int , Dept_no int , foreign key(Dept_no) references Dept(Dept_no));

create table Assignedto(empno int , Pno int , job_role varchar(20) , foreign key(empno) references Employee(empno) , foreign key(Pno) references Project(Pno));

create table incentives_(empno int , incentive_date date primary key , incentive_amt decimal(10,2) , foreign key(empno) references Employee(empno));

insert into Project(Pno ,Ploc ,Pname) values(1 ,'Bengaluru' , 'Fevver'),(2,'Bengaluru','ABC'),(3,'Mysore', 'xyz') , (4 , 'Hyderabad','KLm'),(5 ,'Hyderabad' ,'Omk');

insert into Dept(Dept_no, Dname , Dloc) values(10, 'Info system','Bengaluru') , (20 ,'Tech system','Mysore'),(30,'AI','Bengaluru') ,(40 ,'Cybersecurity','Hyderabad'),(50,'Blockchain','Bengaluru');

insert into Employee(empno, ename , mgr_no,hiredate,sal,Dept_no) values(101 , 'Raju' , 101 , '2012-03-04',100000,10),(102,'Ravi',101,'2011-03-09',90000,10),(103,'XINJ',101,'2019-06-09',60000,20),(104,'Soma',101,'2012-03-04',70000,30),(105,'Krishna',101,'2013-09-10',50000,40);

insert into incentives_(empno ,incentive_date,incentive_amt) values(101 , '2019-01-01',20000.50),(102,'2019-02-01',3000.50),(103,'2019-03-01','3000.40'),(104,'2019-04-01',4000.40),(105,'2019-05-01',500.50);

ALTER TABLE Assignedto MODIFY job_role VARCHAR(50);

insert into Assignedto(empno ,Pno ,job_role)values (101 , 1 , 'Managaer'),(102,2,'Engineer'),(103,3,'developer'),(104,4,'tester'),(105,5,'full stack developer ');

Queries:

1. Retrieve the employee numbers of all employees who work on project located in Bengaluru.

   ```
   select a.empno
   from assigned_to a, employee e, project p
   where p.pno = a.pno and e.empno = a.emp.no and p.ploc = "Bengaluru";
   ```

empno
101
102
103

2. Get Employee ID's of those employees who didn't receive incentives

select e.empno
from employee e
where e.empno not in (select a.empno from assignedto a where a.empno = e.empno);

empno
NULL

3. Write a SQL query to find the employees name, number, dept, job_role, department location and project location who are working for a project location same as his/her department location.

select distinct e.empno, e.ename ,a.job_role,d.Dept_no,p.Ploc
from employee e , dept d , project p , assignedto a
where e.Dept_no=d.Dept_no and e.empno = a.empno and p.Pno = a.Pno and p.Ploc=d.Dloc;

empno	ename	job_role	Dept_no	Ploc
102	Ravi	Engineer	10	Bengaluru
101	Raju	Managaer	10	Bengaluru
103	XINJ	developer	20	Mysore
105	Krishna	full stack developer	40	Hyderabad
105	Krishna	full stack developer	40	Hyderabad

4. List employees with dept name and location

select e.empno, e.name, d.dname, d.loc
from employee e, dept d
where e.deptno = d.deptno;

empno	ename	Dname	Dloc
102	Ravi	Info system	Bengaluru
101	Raju	Info system	Bengaluru
103	XINJ	Tech system	Mysore
104	Soma	AI	Bengaluru
105	Krishna	Cybersecurity	Hyderabad

5. Employees who are not assigned to any project head count

select p.pno, p.pname, count(a.empno) as head_count
from project p, assignedto a
where p.pno =a.pno
group by p.pno, p.pname;

Pno	Pname	head_count
1	Fevver	1
2	ABC	1
3	xyz	1
4	KLm	1
5	Omk	1

6. Department wise average and max salary

   select d.Dept_no ,d.Dname , avg(e.sal) as avg_salary , max(e.sal) as max_salary
   from dept d , employee e
   where e.Dept_no=d.Dept_no
   group by d.Dept_no ,d.Dname;

Dept_no	Dname	avg_salary	max_salary
10	Info system	95000.0000	100000
20	Tech system	60000.0000	60000
30	AI	70000.0000	70000
40	Cybersecurity	50000.0000	50000

7. Total incentives earned by each employee

   select e.ename , sum(i.incentive_amt) as total_incentives
   from employee e , incentives_ i
   where e.empno = i.empno
   group by e.ename;

ename	total_incentives
Raju	20000.50
Ravi	3000.50
XINJ	3000.40
Soma	4000.40
Krishna	500.50

8. Employee working on given project

   select e.empno , e.ename , p.Pname
   from employee e , assignedto a , project p
   where e.empno = a.empno and p.Pno = a.Pno and p.Pname ='Alpha;

empno	ename	Pname

9. Department with no employees.

   select d.Dept_no , d.Dname
   from dept d
   where d.Dept_no not in (select Dept_no from employee);

Dept_no	Dname
50	Blockchain

10. Managers and their direct report count.

   select e.mgr_no as mgr_id , m.ename as managername , count(*) as repot_count
   from employee e , employee m
   where e.mgr_no = e.empno
   group by e.mgr_no,m.ename;

mgr_id	managername	repot_count
101	Raju	1

11. Employees assigned to more than 1 project.

   select e.empno , e.ename
   from assignedto a , employee e where e.empno= a.empno
   group by empno
   having count(pno)>1;

empno	ename