WEEK 5– EMPLOYEE DATABASE

Schema Diagram

INCENTIVES
EMPNO (FK)
INCENTIVE_DATE
INCENTIVE_AMOUNT

DEPT
DEPTNO
DNAME
DLOC

PROJECT
PNO
PLOC
PNAME

EMPLOYEE
EMPNO
ENAME
MGR_NO
HIREDATE
SAL
DEPTNO (FK)

ASSIGNED-TO
EMPNO (FK)
PNO (FK)
JOB_ROLE
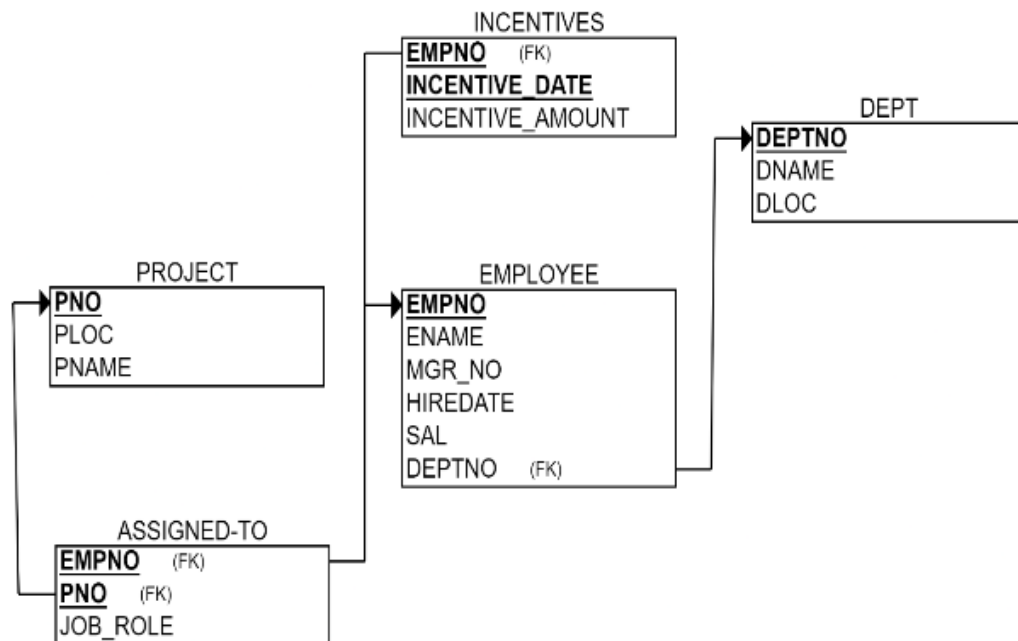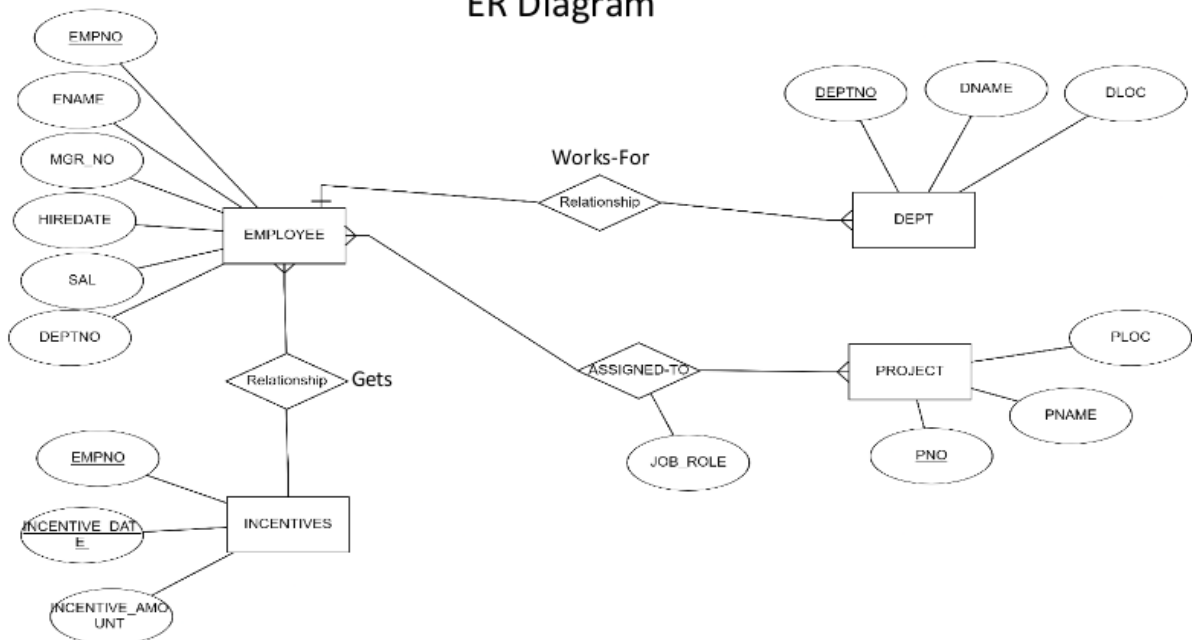
ER Diagram

TO DO:

1) **Using Scheme diagram, Create tables by properly specifying the primary keys and the foreign keys.**
   (CREATION)

```sql
create database dhiksha_employee;
use dhiksha_employee;
create table dhiksha_employee.project(
pno int,
ploc varchar(40),
pname varchar(40),
PRIMARY KEY(pno)
);
create table dhiksha_employee.dept(
deptno int,
dname varchar(40),
dloc varchar(40),
PRIMARY KEY(deptno)
);
create table dhiksha_employee.employee(
empno int,
ename varchar(40),
mgr_no int,
hiredate date,
sal int,
deptno int,
primary key (empno),
foreign key (deptno) references dept(deptno)
);
create table dhiksha_employee.incentives(
empno int,
incentive_date date,
incentive_amount int,
primary key(incentive_date),
foreign key (empno) references employee(empno)
);
create table dhiksha_employee.assigned_to(
empno int,
```

```
pno int,
job_role varchar(50),
foreign key (pno) references project(pno),
foreign key (empno) references employee(empno)
);
```

2) Enter greater than five tuples for each table. (INSERTION)

```
insert into project values(1,"Bengaluru","Syntax");
insert into project values(2,"Gujurat","Rolex");
insert into project values(3,"Mysuru","Hybrid");
insert into project values(4,"Hyderabad,","Synergy");
insert into project values(5,"Mumbai","Mercury");

insert into dept values(10,"Sales","Bengaluru");
insert into dept values(20,"Finance","West Bengal");
insert into dept values(30,"Marketing","Bihar");
insert into dept values(40,"Purchase","Mumbai");
insert into dept values(50,"Research & Develeopment","Hyderabad");

insert into employee values(100,"Prannay",400,'2003-01-
01',100000,10);
insert into employee values(200,"Farhaan",500,'2004-02-02',100500,50);
insert into employee values(300,"Sanika",100,'2003-01-21',200500,30);
insert into employee values(400,"Sakshi", NULL ,'2008-02-
17',300500,40);
insert into employee values(500,"Nishith",300,'2004-03-05',200700,40);
insert into employee values(600,"Sohan",200,'2005-11-01',200000,20);
insert into employee values(700,"Mahima",200,'2005-11-
21',200900,20);


insert into incentives values(100,'2012-02-17',6000);
insert into incentives values(200,'2012-05-21',7000);
insert into incentives values(400,'2012-07-25',6500);
insert into incentives values(500,'2013-04-19',7400);
insert into incentives values(600,'2013-08-08',8000);
```

insert into assigned_to values(100,1, "Project Manager");
insert into assigned_to values(200,1, "Resource Manager");
insert into assigned_to values(300,2, "Business Analyst");
insert into assigned_to values(400,3, "Business Analyst");
insert into assigned_to values(500,3, "Project Manager");
insert into assigned_to values(600,5, "Resource Manager");

- **SELECTION**

select * from project;

pno	ploc	pname
1	Bengaluru	Syntax
2	Gujurat	Rolex
3	Mysuru	Hybrid
4	Hyderabad,	Synergy
5	Mumbai	Mercury
NULL	NULL	NULL

project 14 ✕

select * from dept;

deptno	dname	dloc
10	Sales	Bengaluru
20	Finance	West Bengal
30	Marketing	Bihar
40	Purchase	Mumbai
50	Research & Develeopment	Hyderabad
NULL	NULL	NULL

dept 30 ✕

select * from employee;

empno	ename	mgr_no	hiredate	sal	deptno
100	Prannay	400	2003-01-01	100000	10
200	Farhaan	500	2004-02-02	100500	50
300	Sanika	100	2003-01-21	200500	30
400	Sakshi	NULL	2008-02-17	300500	40
500	Nishith	300	2004-03-05	200700	40
600	Sohan	200	2005-11-01	200000	20
700	Mahima	200	2005-11-21	200900	20
NULL	NULL	NULL	NULL	NULL	NULL

employee 16 ✕

select * from incentives;

	empno	incentive_date	incentive_amount
▸	100	2012-02-17	6000
	200	2012-05-21	7000
	400	2012-07-25	6500
	500	2013-04-19	7400
	600	2013-08-08	8000
*	NULL	NULL	NULL

incentives 17 ✕

select * from assigned_to;

	empno	pno	job_role
▸	100	1	Project Manager
	200	1	Resource Manager
	300	2	Business Analyst
	400	3	Business Analyst
	500	3	Project Manager
	600	5	Resource Manager

assigned_to 18 ✕

3) **Retrieve the employee numbers of all employees who work on project located in Bengaluru, Hyderabad, or Mysuru.**
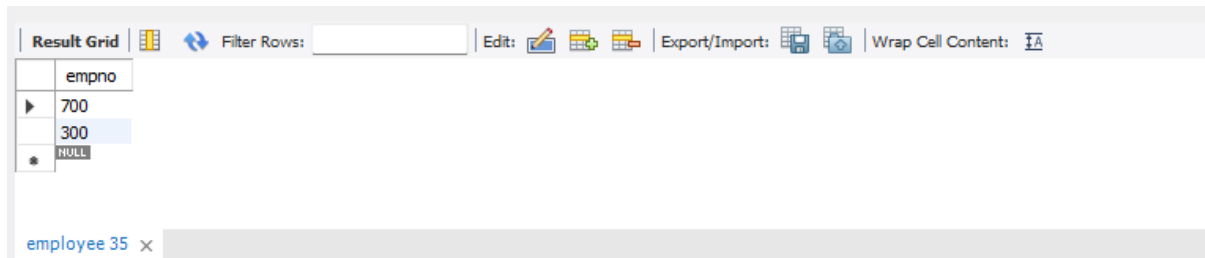   select a.empno Employee_number from project p, assigned_to a
   where p.pno=a.pno and p.ploc in("Hyderabad","Bengaluru","Mysuru");

	Employee_number
▸	100
	200
	400
	500

Result 44 ✕

4) Get Employee ID's of those employees who didn't receive incentives

select e.empno from employee e
where e.empno NOT IN
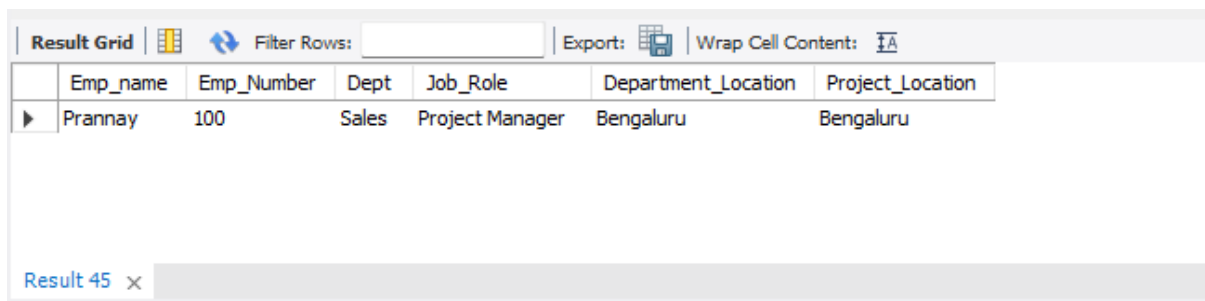   (select i.empno from incentives i);

empno
700
300
NULL

employee 35 ×

5) 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 e.ename Emp_name, e.empno Emp_Number, d.dname Dept,
a.job_role Job_Role, d.dloc Department_Location, p.ploc
Project_Location
from project p, dept d, employee e, assigned_to a
where e.empno=a.empno and p.pno=a.pno and e.deptno=d.deptno and
p.ploc=d.dloc;

Emp_name	Emp_Number	Dept	Job_Role	Department_Location	Project_Location
Prannay	100	Sales	Project Manager	Bengaluru	Bengaluru

Result 45 ×

SPOT QUERY:

Find the employee name, dept name and job role of an employee who received maximum incentive in year 2012

select e.ename, d.dname, a.job_role, MAX(i.incentive_amount) MAX_incentive

from employee e, dept d, incentives i, assigned_to a

where incentive_date between '2012-01-01' and '2012-12-31';

ename	dname	job_role	MAX_incentive
Prannay	Sales	Resource Manager	7000

Result 38 ✕