WEEK 5

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

```
create database employee;
use employee;

create table Dept(
Dept_no int,
Dept_name varchar(30),
Dept_loc varchar(30),
primary key(Dept_no)
);
desc Dept;

create table Employee(
Emp_no int,
E_name varchar(20),
mgr_no varchar(50),
hiredate date,
sal int,
Dept_no int,
primary key(Emp_no),
foreign key(Dept_no) references Dept(Dept_no)
on update cascade on delete cascade
);
desc Employee;

create table project(
P_no int,
```

```
P_loc varchar(50),
P_name varchar(50),
primary key(P_no)
);
desc project;

create table assigned_to (
Emp_no int,
P_no int,
job_role varchar(30),
primary key(Emp_no,P_no),
foreign key(Emp_no) references Employee(Emp_no),
foreign key(P_no) references project(P_no)
on update cascade on delete cascade
);
desc assigned_to;

create table incentives (
Emp_no int,
incentive_date date,
incentive_amount int,
primary key(Emp_no,incentive_date),
foreign key(Emp_no) references Employee(Emp_no)
on update cascade on delete cascade
);
desc incentives;
```

2. Enter greater than five tuples for each table.

insert into Dept values(10,'Administration','Banglore');

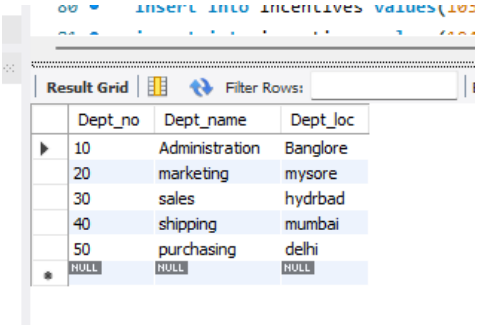
insert into Dept values(20,'marketing','mysore');

insert into Dept values(30,'sales','hydrbad');

insert into Dept values(40,'shipping','mumbai');

insert into Dept values(50,'purchasing','delhi');

select * from Dept;



Result Grid | Filter Rows:

Dept_no	Dept_name	Dept_loc
10	Administration	Banglore
20	marketing	mysore
30	sales	hydrbad
40	shipping	mumbai
50	purchasing	delhi
NULL	NULL	NULL

insert into Employee values(101,'abhi',NULL,'1987-06-17' ,24000,10);

insert into Employee values(102,'bala','101','1987-05-25' ,17000,20);

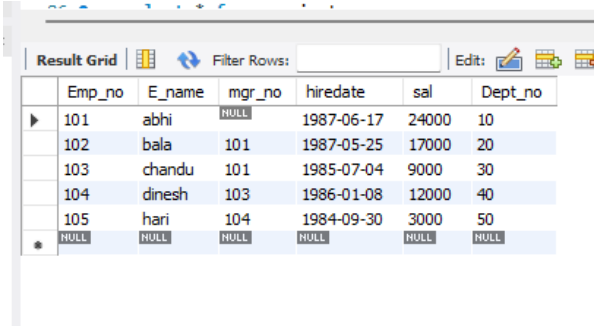
insert into Employee values(103,'chandu','101','1985-07-04' ,9000,30);

insert into Employee values(104,'dinesh','103','1986-01-08' ,12000,40);

insert into Employee values(105,'hari','104','1984-09-30' ,3000,50);

insert into Employee values(106,'varun','101','1987-08-16',2000,20);

select * from Employee;



Result Grid | Filter Rows: | Edit:

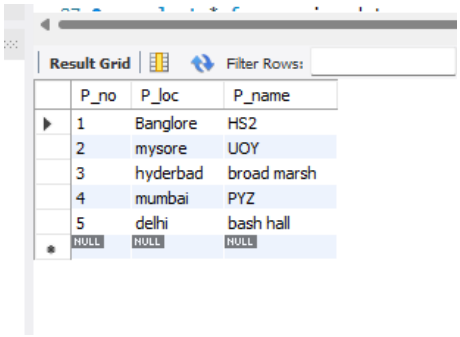
Emp_no	E_name	mgr_no	hiredate	sal	Dept_no
101	abhi	NULL	1987-06-17	24000	10
102	bala	101	1987-05-25	17000	20
103	chandu	101	1985-07-04	9000	30
104	dinesh	103	1986-01-08	12000	40
105	hari	104	1984-09-30	3000	50
NULL	NULL	NULL	NULL	NULL	NULL

insert into project values(1,'Banglore','HS2');

insert into project values(2,'mysore','UOY');

insert into project values(3,'hyderbad','broad marsh');

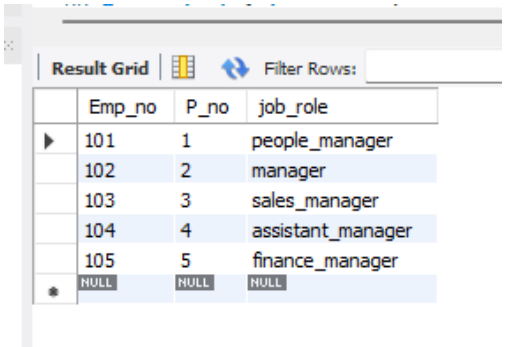
```
insert into project values(4,'mumbai','PYZ');
insert into project values(5,'delhi','bash hall');
select * from project;
```



Result Grid | Filter Rows:

P_no	P_loc	P_name
1	Banglore	HS2
2	mysore	UOY
3	hyderbad	broad marsh
4	mumbai	PYZ
5	delhi	bash hall
NULL	NULL	NULL

```
insert into assigned_to values(101,1,'people_manager');
insert into assigned_to values(102,2,'manager');
insert into assigned_to values(103,3,'sales_manager');
insert into assigned_to values(104,4,'assistant_manager');
insert into assigned_to values(105,5,'finance_manager');
select * from assigned_to;
```



Result Grid | Filter Rows:

Emp_no	P_no	job_role
101	1	people_manager
102	2	manager
103	3	sales_manager
104	4	assistant_manager
105	5	finance_manager
NULL	NULL	NULL

```
insert into incentives values(101,'1988-06-17',1000);
insert into incentives values(102,'1988-05-25',5000);
insert into incentives values(103,'1986-07-04',2000);
insert into incentives values(104,'1987-01-08',500);
insert into incentives values(105,'1985-09-30',4000);
select * from incentives;
```

Result Grid | Filter Rows: | Edit:

Emp_no	incentive_date	incentive_amount
101	1988-06-17	1000
102	1988-05-25	5000
103	1986-07-04	2000
104	1987-01-08	500
105	1985-09-30	4000
NULL	NULL	NULL

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

```
select e.Emp_no from  Employee e
where e.Emp_no NOT IN
            (select i.Emp_no from incentives i);
```

Result Grid | Filt

Emp_no
106
NULL

4. Retrieve the employee numbers of all employees who work on

project located in Bengaluru, Hyderabad, or Mysuru

```
select Emp_no from assigned_to where  Pno= ANY(select P_no from project where
P_loc="hyderbad" OR P_loc = "banglore" OR P_loc="mysore");
```

Result Grid |

Emp_no
101
102
103

5. Write a SQL query to find the employees name, number, dept,

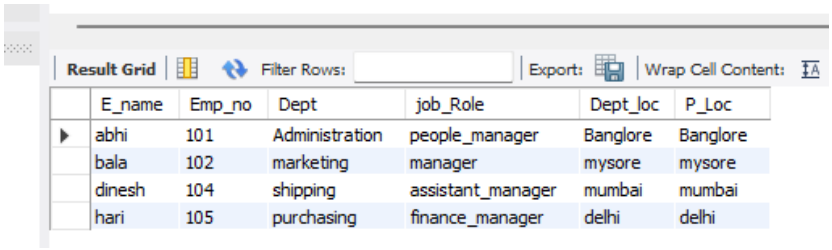
job_role, department location and project location who are working for

a project location same as his/her department location.

```
select e.E_name E_name, e.Emp_no Emp_no, d.Dept_name Dept, a.job_role job_Role, d.Dept_loc
Dept_loc, p.P_loc P_Loc

from project p, Dept d, Employee e, assigned_to a

where e.Emp_no=a.Emp_no and p.P_no=a.P_no and e.Dept_no=d.Dept_no and p.P_loc=d.Dept_loc;
```



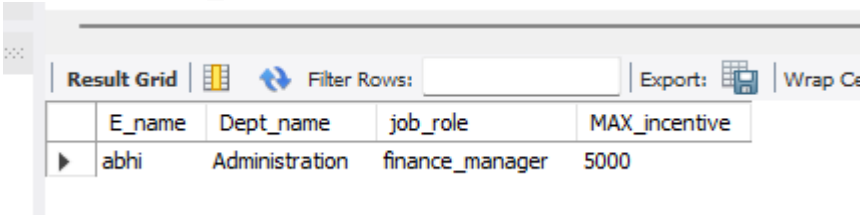
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

E_name	Emp_no	Dept	job_Role	Dept_loc	P_Loc
abhi	101	Administration	people_manager	Banglore	Banglore
bala	102	marketing	manager	mysore	mysore
dinesh	104	shipping	assistant_manager	mumbai	mumbai
hari	105	purchasing	finance_manager	delhi	delhi

Spot query

- **find the employee name, dept name and job_role of an employee who received max incentive in year 2021**

  select e.E_name, d.Dept_name, a.job_role, MAX(i.incentive_amount) MAX_incentive
  from Employee e, Dept d, incentives i, assigned_to a
  where incentive_date between '1985-01-01' and '1988-12-31';



Result Grid | Filter Rows: | Export: | Wrap Ce

E_name	Dept_name	job_role	MAX_incentive
abhi	Administration	finance_manager	5000