

WEEK-5
(1BM21CS045)
EMPLOYEE DATABASE

TO DO

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

```
create database 1bm21cs045_employee;  
use 1bm21cs045_employee;
```

```
create table dept(  
deptno int,  
dname varchar(20),  
dloc varchar(20),  
primary key(deptno)  
);
```

```
create table employee(  
empno int,  
ename varchar(20),  
mgr_no int,  
hiredate date,  
sal double,  
deptno int,  
primary key(empno),  
foreign key (deptno) references dept(deptno)  
on delete cascade  
on update cascade  
);
```

```
create table incentives(  
empno int,  
incentive_date date,  
incentive_amount float,  
primary key(empno,incentive_date),  
foreign key (empno) references employee(empno)  
on delete cascade  
on update cascade  
);
```

```
create table project(  
pno int,
```

```

ploc varchar(20),
pname varchar(20),
primary key(pno)
);

create table assigned_to(
empno int,
pno int,
job_role varchar(20),
primary key(empno,pno),
foreign key (empno) references employee(empno),
foreign key (pno) references project(pno)
on delete cascade
on update cascade
);

```

2. Enter greater than five tuples for each table.

```

insert into dept values(10,'cse','bangalore');
insert into dept values(20,'ise','bangalore');
insert into dept values(30,'aiml','hyderabad');
insert into dept values(40,'ece','mysore');
insert into dept values(50,'eee','delhi');
insert into dept values(60,'iem','chennai');

```

```

insert into employee values(11,'Rajesh',21,'2000-04-03',80000,10);
insert into employee values(12,'Ajay',11,'2003-04-06',70000,20);
insert into employee values(13,'Divya',11,'2006-03-07',60000,30);
insert into employee values(14,'Chandan',12,'2007-09-03',50000,40);
insert into employee values(15,'Bhavesh',13,'2009-11-13',40000,50);
insert into employee values(16,'Tarun',14,'2012-02-10',30000,60);
insert into employee values(17,'Brinda',14,'2009-05-12',50000,10);
insert into employee values(18,'Anil',15,'2015-01-01',30000,20);
insert into employee values(19,'Puja',15,'2020-10-21',60000,30);
insert into employee values(20,'Ram',16,'2021-09-17',45000,40);

```

```

insert into incentives values(11,'2002-09-08',40000);
insert into incentives values(12,'2005-07-10',33000);
insert into incentives values(13,'2008-01-21',7000);
insert into incentives values(14,'2014-08-05',8000);
insert into incentives values(15,'2017-09-13',5000);
insert into incentives values(17,'2021-03-17',6000);
insert into incentives values(18,'2021-04-16',8000);
insert into incentives values(19,'2021-08-11',9000);

```

```

insert into project values(121,'bangalore','proj1');
insert into project values(122,'bangalore','proj2');
insert into project values(123,'mysore','proj3');
insert into project values(124,'hyderabad','proj4');
insert into project values(125,'delhi','proj5');
insert into project values(126,'mumbai','proj6');
insert into project values(127,'calicut','proj7');
insert into project values(128,'calicut','proj8');

```

```

insert into assigned_to values(11,121,'manager');
insert into assigned_to values(12,122,'team_lead');
insert into assigned_to values(13,123,'analyst');
insert into assigned_to values(14,124,'team_lead');
insert into assigned_to values(15,125,'manager');
insert into assigned_to values(16,126,'programmer');
insert into assigned_to values(17,127,'team_lead');
insert into assigned_to values(19,128,'team_lead');

```

```
select *from dept;
```

Result Grid			
Filter Rows:			
	deptno	dname	dloc
▶	10	cse	bangalore
	20	ise	bangalore
	30	aiml	hyderabad
	40	ece	mysore
	50	eee	delhi
	60	iem	chennai
✱	NULL	NULL	NULL

dept 60 x

select *from employee;

Result Grid						
		Filter Rows:		Edit:		Export/In
	empno	ename	mgr_no	hiredate	sal	deptno
▶	11	Rajesh	21	2000-04-03	80000	10
	12	Ajay	11	2003-04-06	70000	20
	13	Divya	11	2006-03-07	60000	30
	14	Chandan	12	2007-09-03	50000	40
	15	Bhavesh	13	2009-11-13	40000	50
	16	Tarun	14	2012-02-10	30000	60
	17	Brinda	14	2009-05-12	50000	10
	18	Anil	15	2015-01-01	30000	20
	19	Puja	15	2020-10-21	60000	30
	20	Ram	16	2021-09-17	45000	40
*	NULL	NULL	NULL	NULL	NULL	NULL

employee 61 ×

select *from incentives;

Result Grid			
		Filter Rows:	
		Edit:	
	empno	incentive_date	incentive_amount
▶	11	2002-09-08	40000
	12	2005-07-10	33000
	13	2008-01-21	7000
	14	2014-08-05	8000
	15	2017-09-13	5000
	17	2021-03-17	6000
	18	2021-04-16	8000
	19	2021-08-11	9000
*	NULL	NULL	NULL

incentives 62 ×

select *from project;

	pno	ploc	pname
▶	121	bangalore	proj1
	122	bangalore	proj2
	123	mysore	proj3
	124	hyderabad	proj4
	125	delhi	proj5
	126	mumbai	proj6
	127	calicut	proj7
	128	calicut	proj8
*	NULL	NULL	NULL

project 63 x

Output

select *from assigned_to;

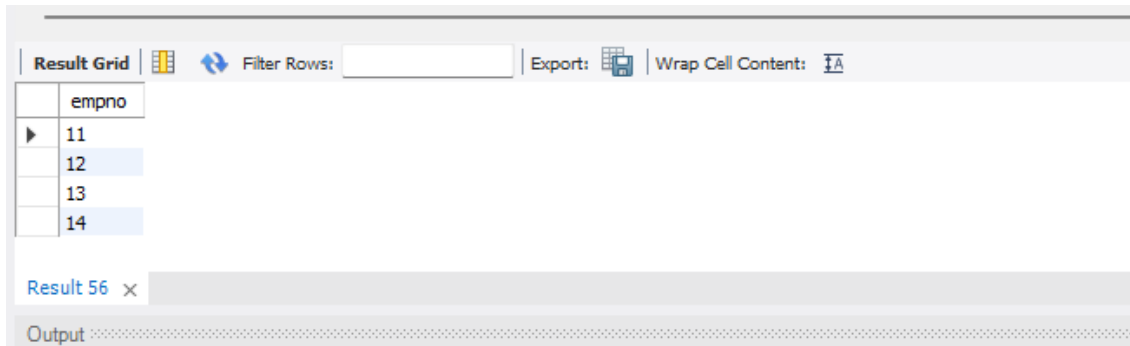
	empno	pno	job_role
▶	11	121	manager
	12	122	team_lead
	13	123	analyst
	14	124	team_lead
	15	125	manager
	16	126	programmer
	17	127	team_lead
	19	128	team_lead
*	NULL	NULL	NULL

assigned_to64 x

Output

3. Retrieve the employee numbers of all employees who work on projects located in Bengaluru, Hyderabad, or Mysuru.

```
select a.empno
from assigned_to a, project p
where p.pno=a.pno and p.ploc in(
select ploc
from project
where ploc='bengaluru' or ploc='hyderabad' or ploc='mysore'
);
```

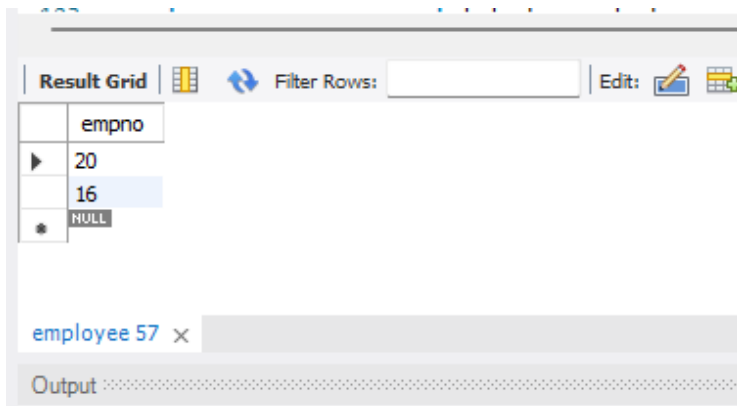


The screenshot shows a database query result grid. The header row is labeled 'empno'. There are four data rows with values 11, 12, 13, and 14. The grid has a toolbar with 'Filter Rows', 'Export', and 'Wrap Cell Content' options. Below the grid, there is a tab labeled 'Result 56' and an 'Output' section.

empno
11
12
13
14

4. Get Employee IDs of those employees who didn't receive incentives.

```
select e.empno
from employee e
where e.empno not in(
select empno
from incentives
);
```



The screenshot shows a database query result grid. The header row is labeled 'empno'. There are three data rows with values 20, 16, and NULL. The grid has a toolbar with 'Filter Rows' and 'Edit' options. Below the grid, there is a tab labeled 'employee 57' and an 'Output' section.

empno
20
16
NULL

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, d.dname, a.job_role
from employee e, dept d, assigned_to a
where e.deptno=d.deptno and a.empno=e.empno and e.empno in (
select empno
from incentives
where incentive_amount = (select max(incentive_AMOUNT) from incentives where
incentive_date between '2021-01-01'and '2021-12-31')
);
```

Result Grid Filter Rows: <input type="text"/> Export: Wrap Cell Content:						
	ename	empno	dname	job_role	dloc	ploc
▶	Rajesh	11	cse	manager	bangalore	bangalore
	Ajay	12	ise	team_lead	bangalore	bangalore
	Bhavesh	15	eee	manager	delhi	delhi

Result 58 ×

Output

Spot query

Find the employee name, dept name, job role of an employee who received maximum incentive in the year 2021.

```
select e.ename, d.dname, a.job_role
from employee e, dept d, assigned_to a
where e.deptno=d.deptno and a.empno=e.empno and e.empno in (
select empno
from incentives
where incentive_amount = (select max(incentive_AMOUNT) from incentives where
incentive_date between '2021-01-01'and '2021-12-31')
);
```

Result Grid



Filter Rows:

Export:



Wrap Cell Content:



	ename	dname	job_role
▶	Puja	aiml	team_lead

Result 59 x

Output