

TO DO:

1. Create tables by properly specifying the primary keys and foreign keys using schema diagram:

```
create database emplInfo;
```

```
use emplInfo;
```

```
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 UPDATE CASCADE ON DELETE CASCADE);
```

```
create table incentives(
```

```
empno int,
```

```
incentive_date date,
```

```
incentive_amount double,
```

```
PRIMARY KEY(incentive_date),
```

```
FOREIGN KEY(empno) REFERENCES employee(empno)
```

```
ON UPDATE CASCADE ON DELETE 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),
FOREIGN KEY(empno) REFERENCES employee(empno)
ON UPDATE CASCADE ON DELETE CASCADE,
FOREIGN KEY(pno) REFERENCES project(pno)
ON UPDATE CASCADE ON DELETE CASCADE);

```

2. Enter greater than five tuples for each table:

```

insert into dept values(1,'finance','delhi');
insert into dept values(2,'it','bangalore');
insert into dept values(3,'marketing','hyderabad');
insert into dept values(4,'logistics','telangana');
insert into dept values(5,'RandD','kerala');
insert into dept values(6,'development','mumbai');
select * from dept;

```

	deptno	dname	dloc
▶	1	finance	delhi
	2	it	bangalore
	3	marketing	hyderabad
	4	logistics	telangana
	5	RandD	kerala
	6	development	bombay
*	NULL	NULL	NULL

```

insert into employee values(1,'avinash',5,'2022-12-01',30000,3);
insert into employee values(2,'dinesh',3,'2022-09-16',90000,2);
insert into employee values(3,'balaji',7,'2020-01-29',50000,1);
insert into employee values(4,'nikil',8,'2021-06-11',20000,4);

```

```

insert into employee values(5,'ravi',6,'2018-07-23',80000,5);
insert into employee values(6,'ganesh',7,'2014-10-11',55000,6);
insert into employee values(7,'ram',7,'2014-08-08',99000,2);
insert into employee values(8,'shivani',null,'2020-08-09',70000,6);
select * from employee;

```

	empno	ename	mgr_no	hiredate	sal	deptno
▶	1	avinash	5	2022-12-01	30000	3
	2	dinesh	3	2022-09-16	90000	2
	3	balaji	7	2020-01-29	50000	1
	4	nikil	8	2021-06-11	20000	4
	5	ravi	6	2018-07-23	80000	5
	6	ganesh	7	2014-10-11	55000	6
	7	ram	7	2014-08-08	99000	2
	8	shivani	NULL	2020-08-09	70000	6
★	NULL	NULL	NULL	NULL	NULL	NULL

```

insert into incentives values(1,'2023-05-09',10000);
insert into incentives values(2,'2023-12-27',22500);
insert into incentives values(3,'2020-07-19',15000);
insert into incentives values(5,'2019-05-10',20000);
insert into incentives values(7,'2016-03-30',10000);
insert into incentives values(8,'2021-04-08',21000);
select * from incentives;

```

	empno	incentive_date	incentive_amount
▶	7	2016-03-30	10000
	5	2019-05-10	20000
	3	2020-07-19	15000
	8	2021-04-08	21000
	1	2023-05-09	10000
	2	2023-12-27	22500
▲	NULL	NULL	NULL

```

insert into project values(1,'bangalore','govt_apps');
insert into project values(2,'hyderabad','pop_stats');
insert into project values(3,'mysuru','onlineWebsite');
insert into project values(4,'delhi','covidChar');
insert into project values(5,'bangalore','finManModel');
insert into project values(6,'mumbai','goods_marketing');
insert into project values(7,'mysuru','hostel_website');
insert into project values(8,'kerala','soil_enrichment');

```

select * from project;

	pno	ploc	pname
▶	1	bangalore	govt_apps
	2	hyderabad	pop_stats
	3	mysuru	onlineWebsite
	4	delhi	covidChar
	5	bangalore	finManModel
	6	mumbai	goods_marketing
	7	mysuru	hostel_website
	8	kerala	soil_enrichment
	NULL	NULL	NULL

insert into assigned_to values(1,2,'statician');

insert into assigned_to values(3,5,'financier');

insert into assigned_to values(4,6,'marketing_engg');

insert into assigned_to values(5,1,'developer');

insert into assigned_to values(7,3,'developer');

insert into assigned_to values(8,4,'scientist');

insert into assigned_to values(2,7,'developer');

insert into assigned_to values(5,8,'ag_scientist');

select * from assigned_to;

	empno	pno	job_role
▶	1	2	statician
	3	5	financier
	4	6	marketing_engg
	7	3	developer
	8	4	scientist
	2	7	developer
	5	8	ag_scientist

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

Query:

select assigned_to.empno

from assigned_to,project

where assigned_to.pno=project.pno and project.ploc in('bangalore','hyderabad','mysuru');

Output:

	empno
▶	1
	7
	3
	2

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

Query:

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

Output:

	empno
▶	4
	6
*	NULL

5. Write an 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 dept location:

Query:

```
select e.ename,e.empno,d.dname,a.job_role,d.dloc,p.ploc
from employee e, dept d, assigned_to a, project p
where d.deptno=e.deptno
and e.empno=a.empno
and a.pno=p.pno
and p.ploc=d.dloc;
```

Output:

	ename	empno	dname	job_role	dloc	ploc
▶	avinash	1	marketing	statician	hyderabad	hyderabad
	ravi	5	RandD	ag_scientist	kerala	kerala

Extra Query:

Find the employee name, dept_name and job role of an employee who received maximum incentive in the year 2023:

Query:

```
select e.ename, d.dname, a.job_role
from employee e, dept d, assigned_to a
where e.empno in(select empno
from incentives
```

where incentive_amount=(select max(incentive_amount)

from incentives

where incentive_date between '2023-01-01' and '2023-12-31'))

and d.deptno=e.deptno and a.empno=e.empno;

Output:

	ename	dname	job_role
▶	dinesh	it	developer