

WEEK 5:

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

```
create database employee1;  
use employee1;
```

```
create table project(  
pno INT primary key,  
ploc VARCHAR(20),  
pname varchar(20)  
);
```

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

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

```
create table incentives(  
empno int,  
incentive_date date,  
incentive_amount int,  
primary key(incentive_date,empno),  
foreign key(empno) references employee(empno)  
);
```

```
create table assigned_to(  

```

```

job_role varchar(20),
empno int,
pno int,
primary key(empno,pno),
foreign key (empno) references employee(empno),
foreign key (pno) references project(pno)
);

```

	job_role	empno	pno
▶	Architect	200	1
	SDE	210	2
	ENGINEER	230	3
	Manager	240	4
	Engineer	250	5
*	NULL	NULL	NULL

	deptno	dname	dloc
▶	6	D1	KOCHI
	7	D2	Kolkata
	8	D3	Pondicherry
	9	D4	Goa
	10	D5	Kerela
*	NULL	NULL	NULL

	empno	ename	mgr_no	hiredate	sal	deptno
▶	200	Avinash	1	2003-08-21	50000	6
	210	Balaji	200	2003-01-07	60000	7
	230	Chandan	240	2003-01-26	70000	8
	240	Dinesh	4	2003-04-01	80000	9
	250	Eshwar	5	2003-02-01	90000	10
*	NULL	NULL	NULL	NULL	NULL	NULL

	empno	incentive_date	incentive_amount
▶	210	2020-01-07	600
	250	2020-02-01	900
	240	2020-04-01	800
*	NULL	NULL	NULL

	pno	ploc	pname
▶	1	KOCHI	Bridge
	2	Kolkata	Dam
	3	Delhi	Tower
	4	Chennai	Reservoir
	5	Ahmedabad	Canal
*	NULL	NULL	NULL

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

```
select employee.ename from employee where employee.empno in(
(select assigned_to.empno from assigned_to where pno in
(select project.pno from project where ploc = 'Bengaluru' or ploc = 'Hyderabad' or ploc = 'Delhi')));
```

	ename
▶	Chandan

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

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

	empno
▶	200
	230

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, e.empno, d.dname, d.dloc, p.ploc, a.job_role from employee e
inner join dept d on e.deptno=d.deptno
inner join assigned_to a on e.empno=a.empno
inner join project p on a.pno=p.pno where p.ploc=d.dloc;
```

	ename	empno	dname	dloc	ploc	job_role
▶	Avinash	200	D1	KOCHI	KOCHI	Architect
	Balaji	210	D2	Kolkata	Kolkata	SDE

/Extra: find employee name, department name, and job role of an employee who received maximum incentive in the year 2020.

```
select e.ename, e.deptno, d.dname, a.job_role, max(i.incentive_amount) from employee
e, dept d, assigned_to a, incentives i where i.incentive_date between '01-01-2020' and '31-12-2020';
```

	ename	deptno	dname	job_role	max(i.incentive_amount)
▶	NULL	NULL	NULL	NULL	NULL