

Name:Deeksha S
USN: 1BM21CS048

EMPLOYEE DATABASE

Week 5

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

```
create database 1bm21cs048_Employee;  
use 1bm21cs048_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 double,  
primary key(empno,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),  
primary key(empno,pno),  
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,'CSE','bangalore');  
insert into dept values(2,'ISE','bangalore');  
insert into dept values(3,'AIML','hyderabad');  
insert into dept values(4,'ECE','mysuru');  
insert into dept values(5,'EEE','delhi');  
insert into dept values(6,'IEM','chennai');
```

```
insert into employee values(10,'Ravi',21,'2000-03-03',100000,1);  
insert into employee values(20,'Avinash',10,'2003-02-02',90000,2);  
insert into employee values(30,'Deeksha',10,'2006-03-03',80000,3);  
insert into employee values(40,'Chinmayi',20,'2007-07-06',70000,4);  
insert into employee values(50,'Bindu',30,'2009-07-09',60000,5);  
insert into employee values(60,'Tanya',40,'2013-08-03',50000,6);  
insert into employee values(70,'Bhanu',40,'2009-08-02',50000,1);  
insert into employee values(80,'Arun',50,'2015-08-02',50000,2);  
insert into employee values(90,'Pushpa',50,'2020-04-02',60000,3);  
insert into employee values(100,'Ramesh',60,'2021-10-02',55000,4);
```

```
insert into incentives values(10,'2002-09-02',30000);  
insert into incentives values(20,'2005-06-04',20000);  
insert into incentives values(30,'2008-02-25',10000);  
insert into incentives values(40,'2014-06-02',5000);  
insert into incentives values(50,'2017-09-06',3000);  
insert into incentives values(70,'2021-12-06',6000);  
insert into incentives values(80,'2021-12-06',4000);  
insert into incentives values(90,'2021-12-06',2000);
```

```

insert into project values(100,'bangalore','p1');
insert into project values(200,'bangalore','p2');
insert into project values(300,'mysuru','p3');
insert into project values(400,'hyderabad','p4');
insert into project values(500,'delhi','p5');
insert into project values(600,'mumbai','p6');
insert into project values(700,'kolkata','p7');

```

```

insert into assigned_to values(10,100,'manager');
insert into assigned_to values(20,200,'teamlead');
insert into assigned_to values(30,300,'analyst');
insert into assigned_to values(40,400,'programmer');
insert into assigned_to values(50,500,'teamlead');
insert into assigned_to values(60,600,'manager');
insert into assigned_to values(70,700,'teamlead');

```

```




select * from dept;

```




| Result Grid | | | |
|--------------|--------|-------|-----------|
| Filter Rows: | | | |
| | deptno | dname | dloc |
| ▶ | 1 | CSE | bangalore |
| | 2 | ISE | bangalore |
| | 3 | AIML | hyderabad |
| | 4 | ECE | mysuru |
| | 5 | EEE | delhi |
| | 6 | IEM | chennai |
| * | NULL | NULL | NULL |

dept 38 × employee 39 incentives 40 project 41 assigned_to 42




select * from employee;

| Result Grid | | | | | | |
|--|-------|----------|--------|------------|--------|--------|
| Filter Rows: <input type="text"/> | | | | | | |
| Edit:    Export | | | | | | |
| | empno | ename | mgr_no | hiredate | sal | deptno |
| ▶ | 10 | Ravi | 21 | 2000-03-03 | 100000 | 1 |
| | 20 | Avinash | 10 | 2003-02-02 | 90000 | 2 |
| | 30 | Deeksha | 10 | 2006-03-03 | 80000 | 3 |
| | 40 | Chinmayi | 20 | 2007-07-06 | 70000 | 4 |
| | 50 | Bindu | 30 | 2009-07-09 | 60000 | 5 |
| | 60 | Tanya | 40 | 2013-08-03 | 50000 | 6 |
| | 70 | Bhanu | 40 | 2009-08-22 | 50000 | 1 |
| | 80 | Arun | 50 | 2015-08-22 | 50000 | 2 |
| | 90 | Pushpa | 50 | 2020-04-22 | 60000 | 3 |
| | 100 | Ramesh | 60 | 2021-10-22 | 55000 | 4 |
| * | NULL | NULL | NULL | NULL | NULL | NULL |
| dept 38 employee 39 × incentives 40 project 41 assigned_to 42 | | | | | | |

select * from incentives;

| Result Grid | | | |
|--|-------|----------------|------------------|
| Filter Rows: <input type="text"/> | | | |
| Edit:    Export | | | |
| | empno | incentive_date | incentive_amount |
| ▶ | 10 | 2002-09-02 | 30000 |
| | 20 | 2005-06-04 | 20000 |
| | 30 | 2008-02-25 | 10000 |
| | 40 | 2014-06-02 | 5000 |
| | 50 | 2017-09-06 | 3000 |
| | 70 | 2021-12-06 | 6000 |
| | 80 | 2021-12-06 | 4000 |
| | 90 | 2021-12-06 | 2000 |
| * | NULL | NULL | NULL |
| dept 38 employee 39 incentives 40 × project 41 assigned_to 42 | | | |

select * from project;

| Result Grid | | | |
|--|------|-----------|-------|
| Filter Rows: <input type="text"/> | | | |
| Edit:    Export | | | |
| | pno | ploc | pname |
| ▶ | 100 | bangalore | p1 |
| | 200 | bangalore | p2 |
| | 300 | mysuru | p3 |
| | 400 | hyderabad | p4 |
| | 500 | delhi | p5 |
| | 600 | mumbai | p6 |
| | 700 | kolkata | p7 |
| * | NULL | NULL | NULL |
| dept 38 employee 39 incentives 40 project 41 × assigned_to 42 | | | |

```
select * from assigned_to;
```

| empno | pno | job_role |
|-------|------|------------|
| 10 | 100 | manager |
| 20 | 200 | teamlead |
| 30 | 300 | analyst |
| 40 | 400 | programmer |
| 50 | 500 | teamlead |
| 60 | 600 | manager |
| 70 | 700 | teamlead |
| NULL | NULL | NULL |

dept 38 employee 39 incentives 40 project 41 assigned_to 42 x

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

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

| empno |
|-------|
| 10 |
| 20 |
| 30 |
| 40 |

Result 43 x

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);
```

Result Grid | Filter Rows:

| | empno |
|---|-------|
| ▶ | 100 |
| | 60 |
| * | NULL |

employee 44 x

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

Result Grid | Filter Rows: | Export: | Wrap

| | ename | empno | dname | job_role | dloc | ploc |
|---|---------|-------|-------|----------|-----------|-----------|
| ▶ | Ravi | 10 | CSE | manager | bangalore | bangalore |
| | Avinash | 20 | ISE | teamlead | bangalore | bangalore |
| | Bindu | 50 | EEE | teamlead | delhi | delhi |

Result 45 x

On spot Query : Find the employee name, dept name, and job_role of an employee who received maximum incentive in year 2021.

```
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 '2021-01-01' and '2021-12-31'))
and d.deptno=e.deptno and a.empno=e.empno;
```

The screenshot shows the Oracle SQL Developer interface. The 'Result Grid' tab is active, displaying a table with three columns: 'ename', 'dname', and 'job_role'. The first row of data contains the values 'Bhanu', 'CSE', and 'teamlead'. To the right of the grid is a 'Filter Rows' input field. The status bar at the bottom left shows 'Result 48'.

| ename | dname | job_role |
|-------|-------|----------|
| Bhanu | CSE | teamlead |