

WEEK-5

CREATION OF TABLES

```
create database 1BM21CS050_EMPLOYEE;
use 1BM21CS050_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 int,
salary int,
deptno int,
PRIMARY KEY (empno),
FOREIGN KEY (deptno) REFERENCES Dept(deptno)
);
create table Project(
pno int,
ploc varchar(30),
pname varchar(20),
PRIMARY KEY (pno)
);
create table Incentives(
empno int,
```

```
Incentives_date int,  
Incentives_amount int,  
PRIMARY KEY (Incentives_date),  
FOREIGN KEY (empno) references Employee (empno)  
);
```

```
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)  
);
```

2. INSERTION OF VALUES

```
insert into Dept values(1, "IT", "BANGALORE");  
insert into Dept values(2, "MARKETING", "CHENNAI");  
insert into Dept values(3, "SALES", "MYSORE");  
insert into Dept values(4, "FINANCE", "HYDERABAD");  
insert into Dept values(5, "IT", "MUMBAI");  
insert into Dept values(6, "HR", "DELHI");  
select * Dept;
```

| Result Grid | | | |
|-------------|--------|-----------|-----------|
| | deptno | dname | dloc |
| ▶ | 1 | IT | BANGALORE |
| | 2 | MARKETING | CHENNAI |
| | 3 | SALES | MYSORE |
| | 4 | FINANCE | HYDERABAD |
| | 5 | IT | MUMBAI |
| | 6 | HR | DELHI |
| ✱ | NULL | NULL | NULL |

```

insert into Employee values(1000, "Avinash", 1002, 2010, 100000, 1);
insert into Employee values(1001, "Balaji", 1001, 2011, 55000, 2);
insert into Employee values(1002, "Chandan", 1005, 2013, 40000, 3);
insert into Employee values(1003, "Dinesh", 1000, 2015, 50000, 4);
insert into Employee values(1004, "Karthik", 1003, 2019, 90000, 5);
insert into Employee values(1005, "Rahul", NULL, 2021, 750000, 6);
select * from Employee;

```

| Result Grid | | | | | | |
|--------------|-------|---------|--------|----------|--------|--------|
| Filter Rows: | | | | | | |
| | empno | ename | mgr_no | hiredate | salary | deptno |
| ▶ | 1000 | Avinash | 1002 | 2010 | 100000 | 1 |
| | 1001 | Balaji | 1001 | 2011 | 55000 | 2 |
| | 1002 | Chandan | 1005 | 2013 | 40000 | 3 |
| | 1003 | Dinesh | 1000 | 2015 | 50000 | 4 |
| | 1004 | Karthik | 1003 | 2019 | 90000 | 5 |
| | 1005 | Rahul | NULL | 2021 | 750000 | 6 |
| ✱ | NULL | NULL | NULL | NULL | NULL | NULL |

insert into Project values(50, "BANGALORE", "GAME C");

insert into Project values(60, "CHENNAI", "PRODUCT A");

insert into Project values(70, "MYSORE", "PGA");

insert into Project values(80, "DELHI", "SOFTWARE D");

insert into Project values(90, "HYDERABAD", "APP J");

insert into Project values(100, "MUMBAI", "PROJECT K");

select * from Project;

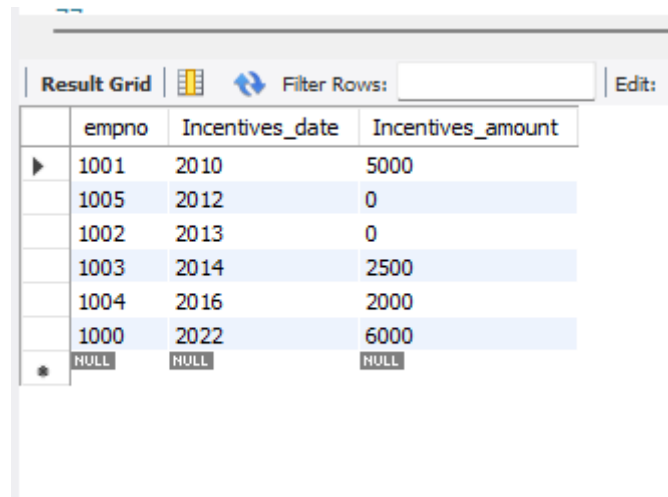
| Result Grid | | | |
|--------------|------|-----------|------------|
| Filter Rows: | | | |
| | pno | ploc | pname |
| ▶ | 50 | BANGALORE | GAME C |
| | 60 | CHENNAI | PRODUCT A |
| | 70 | MYSORE | PGA |
| | 80 | DELHI | SOFTWARE D |
| | 90 | HYDERABAD | APP J |
| | 100 | MUMBAI | PROJECT K |
| ✱ | NULL | NULL | NULL |

insert into Incentives values(1001, 2010, 5000);

```

insert into Incentives values(1002, 2013, 0);
insert into Incentives values(1003, 2014, 2500);
insert into Incentives values(1004, 2016, 2000);
insert into Incentives values(1005, 2012, 0);
insert into Incentives values(1000, 2022, 6000);
select * from Incentives;

```



The screenshot shows a database interface with a 'Result Grid' tab. It displays the results of a SQL query, which are the rows from the 'Incentives' table. The grid has four columns: 'empno', 'Incentives_date', and 'Incentives_amount'. There are seven data rows and one row with NULL values. The rows are: (1001, 2010, 5000), (1005, 2012, 0), (1002, 2013, 0), (1003, 2014, 2500), (1004, 2016, 2000), (1000, 2022, 6000), and (NULL, NULL, NULL). The interface also includes a 'Filter Rows' search bar and an 'Edit' button.

| | empno | Incentives_date | Incentives_amount |
|---|-------|-----------------|-------------------|
| ▶ | 1001 | 2010 | 5000 |
| | 1005 | 2012 | 0 |
| | 1002 | 2013 | 0 |
| | 1003 | 2014 | 2500 |
| | 1004 | 2016 | 2000 |
| | 1000 | 2022 | 6000 |
| ✱ | NULL | NULL | NULL |

```

insert into Assigned_to values(1000, 50, "Manager");
insert into Assigned_to values(1001, 60, "People's Manager");
insert into Assigned_to values(1002, 70, "Sales manager");
insert into Assigned_to values(1003, 80, "Financial Advisor");
insert into Assigned_to values(1004, 90, "Asst.Manger");
insert into Assigned_to values(1005, 100, "Dy.Manger");
select * from Assigned_to;

```

| Result Grid | | | |
|-------------|-------|------|-------------------|
| | empno | pno | job_role |
| ▶ | 1000 | 50 | Manager |
| | 1001 | 60 | People's Manager |
| | 1002 | 70 | Sales manager |
| | 1003 | 80 | Financial Advisor |
| | 1004 | 90 | Asst.Manger |
| | 1005 | 100 | Dy.Manger |
| * | NULL | NULL | NULL |

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

```
select empno from Assigned_to where pno= ANY(select pno from Project where ploc="HYDERABAD" OR ploc = "BANGALORE" OR ploc="MYSORE");
```

| Result Grid | |
|-------------|-------|
| | empno |
| ▶ | 1000 |
| | 1002 |
| | 1004 |

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

```
select e.empno from employee e
where e.empno NOT IN (select i.empno from Incentives i);
```

| Result Grid | | Filter Rows: |
|-------------|-------|--------------|
| | empno | |
| ▶ | 1005 | |
| | 1002 | |

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 ename, e.empno empno, d.Dname Dept,
a.job_role job_Role, d.Dloc dloc, p.ploc pLoc
from Project p, Dept d, Employee e, Assigned_to a
where e.empno=a.empno and p.pno=a.pno and
e.deptno=d.deptno and p.ploc=d.dloc;
```

Result Grid

Filter Rows:

Export:

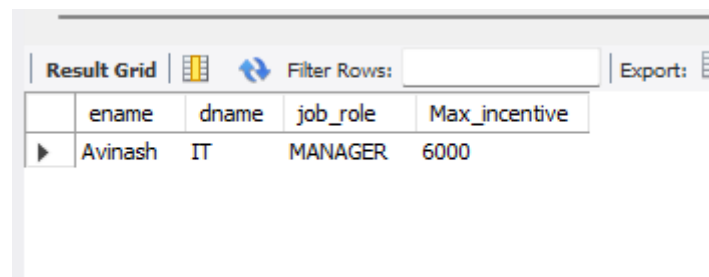
Wrap Cell Content:

| | ename | empno | Dept | job_Role | dloc | pLoc |
|---|---------|-------|-----------|------------------|-----------|-----------|
| ▶ | Avinash | 1000 | IT | Manager | BANGALORE | BANGALORE |
| | Balaji | 1001 | MARKETING | People's Manager | CHENNAI | CHENNAI |
| | Chandan | 1002 | SALES | Sales manager | MYSORE | MYSORE |

SPOT QUERY

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

```
select e.ename, d.dname, a.job_role, MAX(i.Incentives_amount)  
MAX_Incentive from Employee e, Dept d, Incentives i, Assigned_to  
a where Incentives_date between '2016' and '2022';
```



The screenshot shows a database query result grid. At the top, there is a toolbar with a 'Result Grid' tab, a grid icon, a refresh icon, a 'Filter Rows:' text box, and an 'Export:' button. Below the toolbar is a table with five columns: 'ename', 'dname', 'job_role', and 'Max_incentive'. The first row of data contains the values 'Avinash', 'IT', 'MANAGER', and '6000'. There is a small play button icon to the left of the first row.

| | ename | dname | job_role | Max_incentive |
|---|---------|-------|----------|---------------|
| ▶ | Avinash | IT | MANAGER | 6000 |