PROGRAM 6: EMPLOYEE DATABASE-MORE QUERIES (03/11)

Query 1: Creating tables

```
1  create database employee;
2  use employee;
3  create table dept(
4  deptno int PRIMARY KEY,
5  dname varchar(20),
6  dloc varchar(20));
7
8  desc dept;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
deptno	int	NO	PRI	NULL	
dname	varchar(20)	YES		NULL	
dloc	varchar(20)	YES		NULL	

```
10 create table employee(
11 empno int PRIMARY KEY,
12 ename varchar(40),
13 mgr_no int,
14 hiredate date,
15 sal decimal(7,2),
16 deptno int,
17 FOREIGN KEY (deptno) references dept (deptno)
18 );
19
20 desc employee;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
empno	int	NO	PRI	NULL	
ename	varchar(40)	YES		NULL	
mgr_no	int	YES		NULL	
hiredate	date	YES		NULL	
sal	decimal(7,2)	YES		NULL	
deptno	int	YES	MUL	NULL	

```
22 • create table incentives(
23   empno int,
24   incentive_date date PRIMARY KEY,
25   incentive_amount decimal(7,5),
26   FOREIGN KEY (empno) references employee (empno)
27   );
28
29 •  desc incentives;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
empno	int	YES	MUL	NULL	
incentive_date	date	NO	PRI	NULL	
incentive_amount	decimal(7,5)	YES		NULL	

```
31 • create table project(
32   pno int PRIMARY KEY,
33   pname varchar(40),
34   ploc varchar(20));
35
36 •  desc project;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
pno	int	NO	PRI	NULL	
pname	varchar(40)	YES		NULL	
ploc	varchar(20)	YES		NULL	

```
38 • create table assigned_to(
39   empno int,
40   pno int,
41   job_role varchar(40),
42   FOREIGN KEY (empno) references employee (empno),
43   FOREIGN KEY (pno) references project (pno));
44
45 •  desc assigned_to;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
empno	int	YES	MUL	NULL	
pno	int	YES	MUL	NULL	
job_role	varchar(40)	YES		NULL	

Query 2: Inserting values

```
47 •  INSERT INTO dept VALUES (10,'ACCOUNTING','MUMBAI'),
48    (20,'RESEARCH','BENGALURU'),
49    (30,'SALES','DELHI'),
50    (40,'OPERATIONS','CHENNAI');
51
52 •  select * from dept;
53
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

deptno	dname	dloc
10	ACCOUNTING	MUMBAI
20	RESEARCH	BENGALURU
30	SALES	DELHI
40	OPERATIONS	CHENNAI
NULL	NULL	NULL

```
54 •  INSERT INTO employee VALUES (7369,'Adarsh',7902,'2012-12-17','80000.00',20),
55    (7499,'Shruthi',7698,'2013-02-20','16000.00',30),
56    (7521,'Anvitha',7698,'2015-02-22','12500.00',30),
57    (7566,'Tanvir',7839,'2008-04-02','29750.00',20),
58    (7654,'Ramesh',7698,'2014-09-28','12500.00',30),
59    (7698,'Kumar',7839,'2015-05-01','28500.00',30),
60    (7782,'CLARK',7839,'2017-06-09','24500.00',10),
61    (7788,'SCOTT',7566,'2010-12-09','30000.00',20),
62    (7839,'KING',NULL,'2009-11-17','500000.00',10),
63    (7844,'TURNER',7698,'2010-09-08','15000.00',30),
64    (7876,'ADAMS',7788,'2013-01-12','11000.00',20),
65    (7900,'JAMES',7698,'2017-12-03','9500.00',30),
66    (7902,'FORD',7566,'2010-12-03','30000.00',20);
67
68 •  select * from employee;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

empno	ename	mgr_no	hiredate	sal	deptno
7369	Adarsh	7902	2012-12-17	80000.00	20
7499	Shruthi	7698	2013-02-20	16000.00	30
7521	Anvitha	7698	2015-02-22	12500.00	30
7566	Tanvir	7839	2008-04-02	29750.00	20
7654	Ramesh	7698	2014-09-28	12500.00	30
7698	Kumar	7839	2015-05-01	28500.00	30
7782	CLARK	7839	2017-06-09	24500.00	10
7788	SCOTT	7566	2010-12-09	30000.00	20
7839	KING	NULL	2009-11-17	500000.00	10
7844	TURNER	7698	2010-09-08	15000.00	30
7876	ADAMS	7788	2013-01-12	11000.00	20
7900	JAMES	7698	2017-12-03	9500.00	30
7902	FORD	7566	2010-12-03	30000.00	20
NULL	NULL	NULL	NULL	NULL	NULL

```
70 •  INSERT INTO incentives VALUES(7499,'2019-02-01',5000.00),
71    (7521,'2019-03-01',2500.00),
72    (7566,'2022-02-01',5070.00),
73    (7654,'2020-02-01',2000.00),
74    (7654,'2022-04-01',879.00),
75    (7521,'2018-02-01',8000.00),
76    (7698,'2018-03-01',500.00),
77    (7698,'2020-03-01',9000.00),
78    (7698,'2022-04-02',4500.00);
79
80 •  select * from incentives;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

empno	incentive_date	incentive_amount
7521	2018-02-01	8000.00
7698	2018-03-01	500.00
7499	2019-02-01	5000.00
7521	2019-03-01	2500.00
7654	2020-02-01	2000.00
7698	2020-03-01	9000.00
7566	2022-02-01	5070.00
7654	2022-04-01	879.00
7698	2022-04-02	4500.00
NULL	NULL	NULL

```
82 •  INSERT INTO project VALUES(101,'AI Project','BENGALURU'),
83    (102,'IOT','HYDERABAD'),
84    (103,'BLOCKCHAIN','BENGALURU'),
85    (104,'DATA SCIENCE','MYSURU'),
86    (105,'AUTONOMUS SYSTEMS','PUNE');
87
88 •  select * from project;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

pno	pname	ploc
101	AI Project	BENGALURU
102	IOT	HYDERABAD
103	BLOCKCHAIN	BENGALURU
104	DATA SCIENCE	MYSURU
105	AUTONOMUS SYSTEMS	PUNE
NULL	NULL	NULL

```
90 •  INSERT INTO assigned_to VALUES(7499,101,'Software Engineer'),
91    (7521,101,'Software Architect'),
92    (7566,101,'Project Manager'),
93    (7654,102,'Sales'),
94    (7521,102,'Software Engineer'),
95    (7499,102,'Software Engineer'),
96    (7654,103,'Cyber Security'),
97    (7698,104,'Software Engineer'),
98    (7900,105,'Software Engineer'),
99    (7839,104,'General Manager');
100
101 •  select * from assigned_to
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

empno	pno	job_role
7499	101	Software Engineer
7521	101	Software Architect
7566	101	Project Manager
7654	102	Sales
7521	102	Software Engineer
7499	102	Software Engineer
7654	103	Cyber Security
7698	104	Software Engineer
7900	105	Software Engineer
7839	104	General Manager

Query 3: List the name of the managers with the maximum employees

```
113 •  select m.ename, count(*) from employee e,employee m
114    where e.mgr_no = m.empno
115    group by m.ename
116    having count(*) =(select max(mycount)
117    from (SELECT COUNT(*) mycount
118    FROM employee
119    GROUP BY mgr_no) a);
120
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

ename	count(*)
Kumar	5

Query 4: Display those managers name whose salary is more than average salary of his employee.

```
121 •   select * from employee m where m.empno in
122     (select mgr_no from employee)
123     and m.sal > (select avg(e.sal) from employee e where e.mgr_no = m.empno );
124
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

empno	ename	mgr_no	hiredate	sal	deptno
7698	Kumar	7839	2015-05-01	28500.00	30
7839	KING	NULL	2009-11-17	500000.00	10
7788	SCOTT	7566	2010-12-09	30000.00	20
NULL	NULL	NULL	NULL	NULL	NULL

Query 5: Find the name of the second top level managers of each department.

```
125 •   select distinct m.mgr_no,m.ename from employee e,employee m
126     where e.mgr_no=m.mgr_no and e.deptno=m.deptno
127     and e.empno in
128     (select distinct m.mgr_no from employee e, employee m where e.mgr_no=m.mgr_no and e.deptno=m.deptno) and
129     e.sal<(select max(e.sal) from employee e, employee m where e.mgr_no=m.mgr_no);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mgr_no	ename
7839	Tanvir
7839	Kumar
7566	SCOTT
7566	FORD

Query 6: Find the employee details who got second maximum incentive in January 2019.

```
136 •  select e.*,i.incentive_amount from employee e, incentives i where e.empno=i.empno and
137    incentive_date like '2019-01%' and incentive_amount<
138    (select max(incentive_amount) from incentives where incentive_date like '2019-01%');
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

empno	ename	mgr_no	hiredate	sal	deptno	incentive_amount

Query 7: Display those employees who are working in the same department where his manager is working.

```
140 •  select * from employee e where
141    e.deptno=(select m.deptno from employee m
142    where m.empno=e.mgr_no);
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

empno	ename	mgr_no	hiredate	sal	deptno
7369	Adarsh	7902	2012-12-17	80000.00	20
7499	Shruthi	7698	2013-02-20	16000.00	30
7521	Anvitha	7698	2015-02-22	12500.00	30
7654	Ramesh	7698	2014-09-28	12500.00	30
7782	CLARK	7839	2017-06-09	24500.00	10
7788	SCOTT	7566	2010-12-09	30000.00	20
7844	TURNER	7698	2010-09-08	15000.00	30
7876	ADAMS	7788	2013-01-12	11000.00	20
7900	JAMES	7698	2017-12-03	9500.00	30
7902	FORD	7566	2010-12-03	30000.00	20
NULL	NULL	NULL	NULL	NULL	NULL