

DBMS LAB – 4

```
create table EMP (employee_id int, first_name varchar(20), last_name varchar(20), email  
varchar(20), phone_number varchar(30), hire_date date, job_id varchar(30),  
commissino_pct float, manager_id int, department_id int);
```

```
create table DEPT (department_id int, department_name varchar(20), manager_id int,  
location_id int);
```

```
create table LOCA (location_id int, street_address varchar(30), postal_code int, city  
varchar(10), stata_province varchar(30), country_id int);
```

```
insert into EMP values (1, "sanjiv", "lastname1", "emp1@company.org", "0000000001",  
"2023-08-24", "IT_PROG", 10.1 ,1, 1);
```

```
insert into EMP values (2, "soma", "lastname2", "emp2@company.org", "0000000002",  
"2023-08-24", "IT_PROG", 10.2 ,1, 1);
```

```
insert into EMP values (3, "sri", "lastname3", "emp3@company.org", "0000000003", "2023-  
08-24", "AD_PRESS", 10.3 ,2, 2);
```

```
insert into EMP values (134, "vignesh", "lastname134", "emp1@company.org",  
"0000000004", "2023-08-24", "IT_PROG", 10.4 ,1, 1);
```

```
insert into EMP values (159, "mano", "lastname159", "emp1@company.org",  
"0000000005", "2023-08-24", "IT_PROG", 10.5 ,1, 1);
```

```
insert into EMP values (183, "nithin", "lastname183", "emp1@company.org",  
"0000000006", "2023-08-24", "IT_PROG", 10.6 ,1, 1);
```

```
insert into EMP values (8, "jaman", "lastname8", "emp8@company.org", "0000000007",  
"2023-08-24", "AD_PRESS", 10.7 ,2, 2);
```

```
insert into EMP values (9, "bhoop", "lastname9", "emp9@company.org", "0000000008",  
"2023-08-24", "AD_PRESS", 10.8 ,2, 2);
```

```
insert into DEPT values (1, "IT", 1, 1);
```

insert into DEPT values (2, "Administration", 2, 2);

insert into LOCA values (1, "IT_BUILDING", 1, "Trichy", "TN", 1);

insert into LOCA values (2, "ADMIN_BLOCK", 2, "Trichy", "TN", 1);

select * from EMP;

```
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+
| employee_id | first_name | last_name | email | phone_number | hire_date | job_id |
| commissino_pct | manager_id | department_id |
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+
| 1 | sanjiv | lastname1 | emp1@company.org | 0000000001 | 2023-08-24 | IT_PROG | 10.1 |
| 1 | 1 |
| 2 | soma | lastname2 | emp2@company.org | 0000000002 | 2023-08-24 | IT_PROG | 10.2 |
| 1 | 1 |
| 3 | sri | lastname3 | emp3@company.org | 0000000003 | 2023-08-24 | AD_PRESS | 10.3 |
| 2 | 2 |
| 134 | vignesh | lastname134 | emp1@company.org | 0000000004 | 2023-08-24 | IT_PROG |
| 10.4 | 1 | 1 |
| 159 | mano | lastname159 | emp1@company.org | 0000000005 | 2023-08-24 | IT_PROG |
| 10.5 | 1 | 1 |
| 183 | nithin | lastname183 | emp1@company.org | 0000000006 | 2023-08-24 | IT_PROG |
| 10.6 | 1 | 1 |
| 8 | jaman | lastname8 | emp8@company.org | 0000000007 | 2023-08-24 | AD_PRESS |
| 10.7 | 2 | 2 |
| 9 | bhoop | lastname9 | emp9@company.org | 0000000008 | 2023-08-24 | AD_PRESS |
| 10.8 | 2 | 2 |
```

```
+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+
```

select * from DEPT;

```
+-----+-----+-----+-----+
| department_id | department_name | manager_id | location_id |
+-----+-----+-----+-----+
| 1 | IT | 1 | 1 |
| 2 | Administration | 2 | 2 |
+-----+-----+-----+-----+
```

select * from LOCA;

```
+-----+-----+-----+-----+-----+-----+
| location_id | street_address | postal_code | city | stata_province | country_id |
+-----+-----+-----+-----+-----+-----+
| 1 | IT_BUILDING | 1 | Trichy | TN | 1 |
| 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |
+-----+-----+-----+-----+-----+-----+
```

q1.

SELECT * FROM EMP INNER JOIN DEPT INNER JOIN LOCA ON
EMP.DEPARTMENT_ID=DEPT.DEPARTMENT_ID AND
DEPT.LOCATION_ID=LOCA.LOCATION_ID WHERE EMPLOYEE_ID IN (134,159,183);

```
+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+
```

[illegible]

Handwriting practice lines with dashed lines and tick marks for tracing and letter formation.

Three rows of handwriting practice lines. Each row consists of a solid top line, a dashed middle line, and a solid bottom line. Plus signs (+) are placed at regular intervals along the dashed middle line for tracing practice.

Three rows of dashed lines with vertical tick marks for handwriting practice. The first row has 8 tick marks, the second row has 8 tick marks, and the third row has 5 tick marks.

| 1 | sanjiv | lastname1 | emp1@company.org | 0000000001 | 2023-08-24 | IT_PROG | 10.1
| 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 2 | soma | lastname2 | emp2@company.org | 0000000002 | 2023-08-24 | IT_PROG | 10.2 |
1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 3 | sri | lastname3 | emp3@company.org | 0000000003 | 2023-08-24 | AD_PRESS | 10.3 |
2 | 2 | 2 | Administration | 2 | 2 | 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |

| 134 | vignesh | lastname134 | emp1@company.org | 0000000004 | 2023-08-24 | IT_PROG
| 10.4 | 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 159 | mano | lastname159 | emp1@company.org | 0000000005 | 2023-08-24 | IT_PROG |
10.5 | 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 183 | nithin | lastname183 | emp1@company.org | 0000000006 | 2023-08-24 | IT_PROG |
10.6 | 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 8 | jaman | lastname8 | emp8@company.org | 0000000007 | 2023-08-24 | AD_PRESS |
10.7 | 2 | 2 | 2 | Administration | 2 | 2 | 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |

| 9 | bhoop | lastname9 | emp9@company.org | 0000000008 | 2023-08-24 | AD_PRESS |
10.8 | 2 | 2 | 2 | Administration | 2 | 2 | 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |

+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+-----+-----+-----+-----+

q3.

select * from EMP inner JOIN DEPT inner JOIN LOCA on
EMP.department_id=DEPT.department_id and DEPT.location_id=LOCA.location_id where
EMP.commissino_pct in (select max(commissino_pct) from EMP where commissino_pct not
in (select max(commissino_pct) from EMP));

+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+
--+-----+-----+-----+-----+-----+-----+-----+-----+

| employee_id | first_name | last_name | email | phone_number | hire_date | job_id |
commissino_pct | manager_id | department_id | department_id | department_name |

manager_id | location_id | location_id | street_address | postal_code | city | stata_province |
country_id |

```
+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+
--+-----+-----+-----+-----+
```

| 8 | jaman | lastname8 | emp8@company.org | 0000000007 | 2023-08-24 | AD_PRESS |
10.7 | 2 | 2 | 2 | Administration | 2 | 2 | 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |

```
+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+
--+-----+-----+-----+-----+
```

q4.

select * from EMP inner JOIN DEPT inner JOIN LOCA on
EMP.department_id=DEPT.department_id and DEPT.location_id=LOCA.location_id where
EMP.commissino_pct in (select min(commissino_pct) from EMP where commissino_pct not
in (select min(commissino_pct) from EMP));

```
+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+
--+-----+-----+-----+-----+
```

| employee_id | first_name | last_name | email | phone_number | hire_date | job_id |
commissino_pct | manager_id | department_id | department_id | department_name |
manager_id | location_id | location_id | street_address | postal_code | city | stata_province |
country_id |

```
+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+
--+-----+-----+-----+-----+
```

| 2 | soma | lastname2 | emp2@company.org | 0000000002 | 2023-08-24 | IT_PROG | 10.2 |
1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

```
+-----+-----+-----+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+-----+-----+-----+
--+-----+-----+-----+-----+
```

select * from EMP inner JOIN DEPT inner JOIN LOCA on
EMP.department_id=DEPT.department_id and DEPT.location_id=LOCA.location_id where
exists (select DISTINCT(manager_id) from EMP);

```
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+-----+-----+-----+-----+
```

| employee_id | first_name | last_name | email | phone_number | hire_date | job_id |
commissino_pct | manager_id | department_id | department_id | department_name |
manager_id | location_id | location_id | street_address | postal_code | city | stata_province |
country_id |

```
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+-----+-----+-----+-----+
```

| 1 | sanjiv | lastname1 | emp1@company.org | 0000000001 | 2023-08-24 | IT_PROG | 10.1
| 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 2 | soma | lastname2 | emp2@company.org | 0000000002 | 2023-08-24 | IT_PROG | 10.2 |
1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 3 | sri | lastname3 | emp3@company.org | 0000000003 | 2023-08-24 | AD_PRESS | 10.3 |
2 | 2 | 2 | Administration | 2 | 2 | 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |

| 134 | vignesh | lastname134 | emp1@company.org | 0000000004 | 2023-08-24 | IT_PROG
| 10.4 | 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 159 | mano | lastname159 | emp1@company.org | 0000000005 | 2023-08-24 | IT_PROG |
10.5 | 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 183 | nithin | lastname183 | emp1@company.org | 0000000006 | 2023-08-24 | IT_PROG |
10.6 | 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 8 | jaman | lastname8 | emp8@company.org | 0000000007 | 2023-08-24 | AD_PRESS |
10.7 | 2 | 2 | 2 | Administration | 2 | 2 | 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |

| 9 | bhoop | lastname9 | emp9@company.org | 0000000008 | 2023-08-24 | AD_PRESS |
10.8 | 2 | 2 | 2 | Administration | 2 | 2 | 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |

```
+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+-----+
```

q5.

select DISTINCT(DEPT.department_name) from EMP inner JOIN DEPT inner JOIN LOCA on
EMP.department_id=DEPT.department_id and DEPT.location_id=LOCA.location_id;

```
+-----+
| department_name |
+-----+
| IT |
| Administration |
+-----+
```

q6.

select first_name, last_name, DEPT.department_name from EMP inner JOIN DEPT inner
JOIN LOCA on EMP.department_id=DEPT.department_id and
DEPT.location_id=LOCA.location_id where exists (select commissino_pct from EMP where
commissino_pct > 3700);

Empty set

q7.

select DEPT.department_id,department_name from DEPT inner join EMP on
DEPT.department_id=EMP.department_id where not exists(select employee_id from DEPT
inner join EMP on DEPT.department_id=EMP.department_id);

Empty set

q8.

```
select employee_id, concat(first_name, ' ', last_name) as full_name from EMP where  
employee_id in (select employee_id from EMP where first_name like "%t%");
```

```
+-----+-----+  
| employee_id | full_name |  
+-----+-----+  
| 183 | nithin lastname183 |  
+-----+-----+
```

q9.

```
select employee_id, concat(first_name, ' ', last_name) as full_name, commissino_pct as salary  
from EMP where commissino_pct > (select avg(commissino_pct) from EMP) and exists(select  
employee_id from EMP where first_name like '%j%');
```

```
+-----+-----+-----+  
| employee_id | full_name | salary |  
+-----+-----+-----+  
| 8 | jaman lastname8 | 10.7 |  
+-----+-----+-----+
```

q10.

```
select employee_id, concat(first_name, ' ', last_name) as full_name, job_id as job_title from  
EMP where commissino_pct < any(select (commissino_pct) from EMP where  
job_id="IT_PROG");
```

```
+-----+-----+-----+  
| employee_id | full_name | job_title |
```

```
+-----+-----+-----+
| 1 | sanjiv lastname1 | IT_PROG |
| 2 | soma lastname2 | IT_PROG |
| 3 | sri lastname3 | AD_PRESS |
| 134 | vignesh lastname134 | IT_PROG |
| 159 | mano lastname159 | IT_PROG |
+-----+-----+-----+
```

Q11.

select employee_id, concat(first_name, ' ', last_name) as full_name, job_id as job_title from
EMP where commissino_pct < any(select (commissino_pct) from EMP where
job_id="IT_PROG") and job_id <> "IT_PROG";

```
+-----+-----+-----+
| employee_id | full_name | job_title |
+-----+-----+-----+
| 3 | sri lastname3 | AD_PRESS |
+-----+-----+-----+
```

Q12.

select employee_id, concat(first_name, ' ', last_name) as full_name, job_id as job_title from
EMP where commissino_pct > all(select (commissino_pct) from EMP where
job_id="IT_PROG") and job_id <> "IT_PROG";

```
+-----+-----+-----+
| employee_id | full_name | job_title |
+-----+-----+-----+
| 8 | jaman lastname8 | AD_PRESS |
```

| 9 | bhoop lastname9 | AD_PRESS |

+-----+-----+-----+

Q13.

select employee_id, concat(first_name,' ',last_name)as full_name, job_id as job_title from
EMP where commissino_pct>all(select avg(commissino_pct) from EMP group by job_id);

+-----+-----+-----+

| employee_id | full_name | job_title |

+-----+-----+-----+

| 183 | nithin lastname183 | IT_PROG |

| 8 | jaman lastname8 | AD_PRESS |

| 9 | bhoop lastname9 | AD_PRESS |

+-----+-----+-----+

q14.

select first_name, last_name, commissino_pct as salary, EMP.department_id from EMP inner
JOIN DEPT inner JOIN LOCA on EMP.department_id=DEPT.department_id and
DEPT.location_id=LOCA.location_id where EMP.commissino_pct in (select commissino_pct
from EMP where commissino_pct > (select avg(commissino_pct) from EMP)) order by
EMP.commissino_pct desc ;

+-----+-----+-----+-----+

| first_name | last_name | salary | department_id |

+-----+-----+-----+-----+

| bhoop | lastname9 | 10.8 | 2 |

| jaman | lastname8 | 10.7 | 2 |

| nithin | lastname183 | 10.6 | 1 |

| mano | lastname159 | 10.5 | 1 |

+-----+-----+-----+-----+

q15.

select * from EMP inner JOIN DEPT inner JOIN LOCA on
EMP.department_id=DEPT.department_id and DEPT.location_id=LOCA.location_id where
EMP.commissino_pct in (select commissino_pct from EMP where commissino_pct between
(select min(commissino_pct) from EMP) and 2500);

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+

| employee_id | first_name | last_name | email | phone_number | hire_date | job_id |
commissino_pct | manager_id | department_id | department_id | department_name |
manager_id | location_id | location_id | street_address | postal_code | city | stata_province |
country_id |

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+

| 1 | sanjiv | lastname1 | emp1@company.org | 0000000001 | 2023-08-24 | IT_PROG | 10.1
| 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 2 | soma | lastname2 | emp2@company.org | 0000000002 | 2023-08-24 | IT_PROG | 10.2 |
1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 3 | sri | lastname3 | emp3@company.org | 0000000003 | 2023-08-24 | AD_PRESS | 10.3 |
2 | 2 | 2 | Administration | 2 | 2 | 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |

| 134 | vignesh | lastname134 | emp1@company.org | 0000000004 | 2023-08-24 | IT_PROG
| 10.4 | 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 159 | mano | lastname159 | emp1@company.org | 0000000005 | 2023-08-24 | IT_PROG |
10.5 | 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

| 183 | nithin | lastname183 | emp1@company.org | 0000000006 | 2023-08-24 | IT_PROG |
10.6 | 1 | 1 | 1 | IT | 1 | 1 | 1 | IT_BUILDING | 1 | Trichy | TN | 1 |

Date – 24/08/2023
Time – 2:30 – 5:00pm

Sanjiv Kannaa Jeganathan
106121116

| 8 | jaman | lastname8 | emp8@company.org | 0000000007 | 2023-08-24 | AD_PRESS |
10.7 | 2 | 2 | 2 | Administration | 2 | 2 | 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |

| 9 | bhoop | lastname9 | emp9@company.org | 0000000008 | 2023-08-24 | AD_PRESS |
10.8 | 2 | 2 | 2 | Administration | 2 | 2 | 2 | ADMIN_BLOCK | 2 | Trichy | TN | 1 |

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+-----+-----+-----+-----+-----+-----+-----+-----+-----+
---+-----+-----+-----+-----+-----+-----+-----+-----+-----+