

```

--> ('EMP002', 'Aisha', 'Akhtar', 'aisha.akhtar@example.com', '01887654321', '2023-02-15', 'JOB002', 32000, 0.03, 'MNG002', 'DPT002'),
--> ('EMP003', 'Imran', 'Ahmed', 'imran.ahmed@example.com', '01955556666', '2023-03-20', 'JOB003', 35000, 0.025, 'MNG001', 'DPT001'),
--> ('EMP004', 'Nusrat', 'Islam', 'nusrat.islam@example.com', '01511112222', '2023-04-10', 'JOB001', 28000, 0.02, 'MNG002', 'DPT002'),
--> ('EMP005', 'Abdul', 'Rahman', 'abdul.rahman@example.com', '01677889900', '2023-05-05', 'JOB002', 31000, 0.02, 'MNG001', 'DPT003'),
--> ('EMP006', 'Sadia', 'Sultana', 'sadia.sultana@example.com', '01733445566', '2023-06-15', 'JOB003', 33000, 0.015, 'MNG002', 'DPT002'),
--> ('EMP007', 'Kamal', 'Hossain', 'kamal.hossain@example.com', '01666778888', '2023-07-01', 'JOB001', 29000, 0.025, 'MNG001', 'DPT003'),
--> ('EMP008', 'Sabina', 'Khatun', 'sabina.khatun@example.com', '01544456666', '2023-08-12', 'JOB002', 32500, 0.03, 'MNG002', 'DPT002'),
--> ('EMP009', 'Mominul', 'Haq', 'mominul.haq@example.com', '01999112233', '2023-09-25', 'JOB003', 36000, 0.02, 'MNG001', 'DPT004'),
--> ('EMP010', 'Farzana', 'Akhter', 'farzana.akhter@example.com', '01711223344', '2023-10-10', 'JOB001', 29500, 0.025, 'MNG002', 'DPT005'),
--> ('EMP011', 'Khaled', 'Hossain', 'khaled.hossain@example.com', '01887654321', '2023-11-18', 'JOB002', 34000, 0.03, 'MNG001', 'DPT006'),
--> ('EMP012', 'Fahmida', 'Begum', 'fahmida.begum@example.com', '01511112233', '2023-12-05', 'JOB003', 37000, 0.015, 'MNG002', 'DPT007');
Query OK, 12 rows affected (0.01 sec)
Records: 12 Duplicates: 0 Warnings: 0

mysql> select * from employee;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| employee_id | first_name | last_name | email | phone_number | hire_date | job_id | salary | commission_pct | manager_id | department_id |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| EMP001 | Rahim | Khan | rahim.khan@example.com | 01712345678 | 2023-01-01 | JOB001 | 30000 | 0.020 | MNG001 | DPT001 |
| EMP002 | Aisha | Akhtar | aisha.akhtar@example.com | 01887654321 | 2023-02-15 | JOB002 | 32000 | 0.030 | MNG002 | DPT002 |
| EMP003 | Imran | Ahmed | imran.ahmed@example.com | 01955556666 | 2023-03-20 | JOB003 | 35000 | 0.025 | MNG001 | DPT001 |
| EMP004 | Nusrat | Islam | nusrat.islam@example.com | 01511112222 | 2023-04-10 | JOB001 | 28000 | 0.020 | MNG002 | DPT002 |
| EMP005 | Abdul | Rahman | abdul.rahman@example.com | 01677889900 | 2023-05-05 | JOB002 | 31000 | 0.020 | MNG001 | DPT003 |
| EMP006 | Sadia | Sultana | sadia.sultana@example.com | 01733445566 | 2023-06-15 | JOB003 | 33000 | 0.015 | MNG002 | DPT002 |
| EMP007 | Kamal | Hossain | kamal.hossain@example.com | 01666778888 | 2023-07-01 | JOB001 | 29000 | 0.025 | MNG001 | DPT003 |
| EMP008 | Sabina | Khatun | sabina.khatun@example.com | 01544456666 | 2023-08-12 | JOB002 | 32500 | 0.030 | MNG002 | DPT002 |
| EMP009 | Mominul | Haq | mominul.haq@example.com | 01999112233 | 2023-09-25 | JOB003 | 36000 | 0.020 | MNG001 | DPT004 |
| EMP010 | Farzana | Akhter | farzana.akhter@example.com | 01711223344 | 2023-10-10 | JOB001 | 29500 | 0.025 | MNG002 | DPT005 |
| EMP011 | Khaled | Hossain | khaled.hossain@example.com | 01887654321 | 2023-11-18 | JOB002 | 34000 | 0.030 | MNG001 | DPT006 |
| EMP012 | Fahmida | Begum | fahmida.begum@example.com | 01511112233 | 2023-12-05 | JOB003 | 37000 | 0.015 | MNG002 | DPT007 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
12 rows in set (0.00 sec)

```

1. SELECT first_name, last_name, email, phone_number, hire_date, department_id
FROM Employee
WHERE hire_date = (SELECT MAX(hire_date) FROM Employee);

```

mysql> SELECT first_name, last_name, email, phone_number, hire_date, department_id
--> FROM Employee
--> WHERE hire_date = (SELECT MAX(hire_date) FROM Employee);
+-----+-----+-----+-----+-----+-----+
| first_name | last_name | email | phone_number | hire_date | department_id |
+-----+-----+-----+-----+-----+-----+
| Fahmida | Begum | fahmida.begum@example.com | 01511112233 | 2023-12-05 | DPT007 |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

```

2. SELECT first_name, last_name, employee_id, phone_number, salary, department_id
FROM Employee e1
WHERE salary = (
SELECT MIN(salary)

```

FROM Employee e2
WHERE e1.department_id = e2.department_id
);

```

```

mysql> SELECT first_name, last_name, employee_id, phone_number, salary, department_id
-> FROM Employee e1
-> WHERE salary = (
->     SELECT MIN(salary)
->     FROM Employee e2
->     WHERE e1.department_id = e2.department_id
-> );

```

first_name	last_name	employee_id	phone_number	salary	department_id
Rahim	Khan	EMP001	01712345678	30000	DPT001
Nusrat	Islam	EMP004	01511112222	28000	DPT002
Kamal	Hossain	EMP007	01666778888	29000	DPT003
Mominul	Haq	EMP009	01999112233	36000	DPT004
Farzana	Akhter	EMP010	01711223344	29500	DPT005
Khaled	Hossain	EMP011	01887654321	34000	DPT006
Fahmida	Begum	EMP012	01511112233	37000	DPT007

```

7 rows in set (0.00 sec)

```

```

3. SELECT first_name, last_name, employee_id, commission_pct,
   department_id
FROM Employee e1
WHERE department_id = 'DPT007'
AND commission_pct < (
    SELECT MIN(commission_pct)
    FROM Employee e2
    WHERE e2.department_id = 'DPT005'
);

```

```
mysql> SELECT first_name, last_name, employee_id, commission_pct, department_id
-> FROM Employee e1
-> WHERE department_id = 'DPT007'
-> AND commission_pct < (
->     SELECT MIN(commission_pct)
->     FROM Employee e2
->     WHERE e2.department_id = 'DPT005'
-> );
```

first_name	last_name	employee_id	commission_pct	department_id
Fahmida	Begum	EMP012	0.015	DPT007

1 row in set (0.01 sec)

4. SELECT department_id, COUNT(*) AS total_employees
FROM Employee
WHERE department_id NOT IN (
 SELECT DISTINCT department_id
 FROM Employee
 WHERE salary > 30000
)
GROUP BY department_id;

```
mysql> SELECT department_id, COUNT(*) AS total_employees
-> FROM Employee
-> WHERE department_id NOT IN (
->     SELECT DISTINCT department_id
->     FROM Employee
->     WHERE salary > 30000
-> )
-> GROUP BY department_id;
```

department_id	total_employees
DPT005	1

1 row in set (0.00 sec)

```

5. SELECT department_id, job_id, commission_pct
   FROM Employee e1
  WHERE commission_pct < (
      SELECT MAX(commission_pct)
      FROM Employee e2
     WHERE e1.department_id = e2.department_id
     AND e1.job_id != e2.job_id
  );

```

```

mysql> SELECT department_id, job_id, commission_pct
-> FROM Employee e1
-> WHERE commission_pct < (
->     SELECT MAX(commission_pct)
->     FROM Employee e2
->     WHERE e1.department_id = e2.department_id
->     AND e1.job_id != e2.job_id
-> );

```

department_id	job_id	commission_pct
DPT001	JOB001	0.020
DPT002	JOB001	0.020
DPT003	JOB002	0.020
DPT002	JOB003	0.015

```

4 rows in set (0.00 sec)

```

```

6. SELECT DISTINCT manager_id
   FROM Employee
  WHERE manager_id NOT IN (
      SELECT DISTINCT manager_id
      FROM Employee
     WHERE salary < 3500
  );

```

```
mysql> SELECT DISTINCT manager_id
-> FROM Employee
-> WHERE manager_id NOT IN (
->     SELECT DISTINCT manager_id
->     FROM Employee
->     WHERE salary < 3500
-> );
```

```
+-----+
| manager_id |
+-----+
| MNG001     |
| MNG002     |
+-----+
```

```
2 rows in set (0.00 sec)
```

```
7. SELECT e1.first_name, e1.last_name, e1.employee_id, e1.email,
e1.salary, e1.department_id, e1.commission_pct
FROM Employee e1
JOIN (
    SELECT manager_id, MIN(commission_pct) AS min_commission
    FROM Employee
    GROUP BY manager_id
) AS e2 ON e1.manager_id = e2.manager_id AND
e1.commission_pct = e2.min_commission;
```



```
mysql> SELECT e1.first_name, e1.last_name, e1.employee_id, e1.email, e1.salary, e1.department_id, e1.commission_pct
-> FROM Employee e1
-> JOIN (
->   SELECT manager_id, MIN(commission_pct) AS min_commission
->   FROM Employee
->   GROUP BY manager_id
-> ) AS e2 ON e1.manager_id = e2.manager_id AND e1.commission_pct = e2.min_commission;
```

first_name	last_name	employee_id	email	salary	department_id	commission_pct
Rahim	Khan	EMP001	rahim.khan@example.com	30000	DPT001	0.020
Abdul	Rahman	EMP005	abdul.rahman@example.com	31000	DPT003	0.020
Sadia	Sultana	EMP006	sadia.sultana@example.com	33000	DPT002	0.015
Mominul	Haq	EMP009	mominul.haq@example.com	36000	DPT004	0.020
Fahmida	Begum	EMP012	fahmida.begum@example.com	37000	DPT007	0.015

5 rows in set (0.00 sec)