```
MariaDB [assignment02]> Create table Employee
    -> (
    ->    Employee_id char(10),
    ->    First_name varchar(20),
    ->    Last_name varchar(20),
    ->    Email varchar(60),
    ->    Phone_number char(14),
    ->    Hire_date date,
    ->    Job_id char(10),
    ->    Salary int,
    ->    Commission_pct decimal(5,3),
    ->    Manager_id char(10),
    ->    Department_id char(10)
    -> );
Query OK, 0 rows affected (0.016 sec)
```

Create table Employee
(
  Employee_id char(10),
  First_name varchar(20),
  Last_name varchar(20),
  Email varchar(60),
  Phone_number char(14),
  Hire_date date,
  Job_id char(10),
  Salary int,
  Commission_pct decimal(5,3),
  Manager_id char(10),
  Department_id char(10)
);

```
MariaDB [assignment02]> INSERT INTO Employee VALUES
    -> ('EMP001', 'Abir', 'Hossain', 'abir.hossain@abc.com', '+8801234567890', '2015-09-15', 'JOB001', 70000, 0.10, 'MNG001', 'DPT001'),
    -> ('EMP002', 'Nafis', 'Ahmed', 'nafishossain@hotmail.com', '+8801234567891', '2017-01-15', 'JOB002', 50000, 0.06, 'MNG002', 'DPT001'),
    -> ('EMP003', 'Tasneem', 'Habib', 'tasnim002@gmail.com', '+8801234567892', '2016-10-12', 'JOB001', 65000, 0.10, 'MNG003', 'DPT002'),
    -> ('EMP004', 'Nahid', 'Islam', 'nahidislam007@outlook.com', '+8801234567893', '2018-11-11', 'JOB002', 40000, 0.03, 'MNG004', 'DPT002'),
    -> ('EMP005', 'Arafat', 'Talukder', 'arafat0001@gmail.com', '+8801234567894', '2020-02-14', 'JOB001', 25000, 0.01, 'MNG001', 'DPT003'),
    -> ('EMP006', 'Tasneem', 'Jahan', 'tasneemjahan@yahoo.com', '+8801234567895', '2018-01-12', 'JOB002', 50000, 0.07, 'MNG002', 'DPT003'),
    -> ('EMP007', 'Muhtadi', 'Hasan', 'muh.tadi@gmail.com', '+8801234567896', '2019-05-29', 'JOB001', 40000, 0.01, 'MNG003', 'DPT004'),
    -> ('EMP008', 'Farhana', 'Roja', 'roja.farhana@xyz.com', '+8801234567898', '2015-02-19', 'JOB002', 75000, 0.15, 'MNG004', 'DPT004'),
    -> ('EMP009', 'Naima', 'Jahan', 'naima.jahan@gmail.com', '+8801234567897', '2021-01-15', 'JOB001', 20000, 0.01, 'MNG001', 'DPT005'),
    -> ('EMP010', 'Nahid', 'Abrar', 'nahid0010@abc.com', '+8801234567899', '2022-01-20', 'JOB002', 18000, 0.01, 'MNG002', 'DPT005'),
    -> ('EMP011', 'Arafat', 'Hossain', 'arafat0101@gmail.com', '+8801234567810', '2019-11-12', 'JOB001', 35000, 0.02, 'MNG003', 'DPT006'),
    -> ('EMP012', 'Tasneem', 'Haque', 'tasneemmmm11@gmail.com', '+8801234567820', '2021-02-11', 'JOB002', 20000, 0.01, 'MNG004', 'DPT006'),
    -> ('EMP013', 'Muhtadi', 'Mabin', 'mabib.muh11tadi@gmail.com', '+8801234567840', '2023-01-03', 'JOB001', 10000, 0.05, 'MNG001', 'DPT007'),
    -> ('EMP014', 'Farhana', 'Afaf', 'farhana.afaf@gmail.com', '+8801234567831', '2020-01-27', 'JOB002', 30000, 0.04, 'MNG002', 'DPT007'),
    -> ('EMP015', 'Naima', 'Tanjila', 'tanjila.naima@outlook.com', '+8801234567890', '2010-01-12', 'JOB001', 110000, 0.20, 'MNG003', 'DPT001'),
    -> ('EMP016', 'Sanzida', 'Afrin', 'sanzida.afrin@outlook.com', '+8801234567210', '2016-01-12', 'JOB002', 80000, 0.15, 'MNG004', 'DPT003');
Query OK, 16 rows affected (0.005 sec)
Records: 16  Duplicates: 0  Warnings: 0
```

INSERT INTO Employee VALUES
('EMP001', 'Abir', 'Hossain', 'abir.hossain@abc.com', '+8801234567890', '2015-09-15', 'JOB001', 70000, 0.10, 'MNG001', 'DPT001'),
('EMP002', 'Nafis', 'Ahmed', 'nafishossain@hotmail.com', '+8801234567891', '2017-01-15', 'JOB002', 50000, 0.06, 'MNG002', 'DPT001'),
('EMP003', 'Tasneem', 'Habib', 'tasnim002@gmail.com', '+8801234567892', '2016-10-12', 'JOB001', 65000, 0.10, 'MNG003', 'DPT002'),
('EMP004', 'Nahid', 'Islam', 'nahidislam007@outlook.com', '+8801234567893', '2018-11-11', 'JOB002', 40000, 0.03, 'MNG004', 'DPT002'),
('EMP005', 'Arafat', 'Talukder', 'arafat0001@gmail.com', '+8801234567894', '2020-02-14', 'JOB001', 25000, 0.01, 'MNG001', 'DPT003'),
('EMP006', 'Tasneem', 'Jahan', 'tasneemjahan@yahoo.com', '+8801234567895', '2018-01-12', 'JOB002', 50000, 0.07, 'MNG002', 'DPT003'),
('EMP007', 'Muhtadi', 'Hasan', 'muh.tadi@gmail.com', '+8801234567896', '2019-05-29', 'JOB001', 40000, 0.01, 'MNG003', 'DPT004'),
('EMP008', 'Farhana', 'Roja', 'roja.farhana@xyz.com', '+8801234567898', '2015-02-19', 'JOB002', 75000, 0.15, 'MNG004', 'DPT004'),
('EMP009', 'Naima', 'Jahan', 'naima.jahan@gmail.com', '+8801234567897', '2021-01-15', 'JOB001', 20000, 0.01, 'MNG001', 'DPT005'),
('EMP010', 'Nahid', 'Abrar', 'nahid0010@abc.com', '+8801234567899', '2022-01-20', 'JOB002', 18000, 0.01, 'MNG002', 'DPT005'),
('EMP011', 'Arafat', 'Hossain', 'arafat0101@gmail.com', '+8801234567810', '2019-11-12', 'JOB001', 35000, 0.02, 'MNG003', 'DPT006'),
('EMP012', 'Tasneem', 'Haque', 'tasneemmmm11@gmail.com', '+8801234567820', '2021-02-11', 'JOB002', 20000, 0.01, 'MNG004', 'DPT006'),
('EMP013', 'Muhtadi', 'Mabin', 'mabib.muh11tadi@gmail.com', '+8801234567840', '2023-01-03', 'JOB001', 10000, 0.05, 'MNG001', 'DPT007'),
('EMP014', 'Farhana', 'Afaf', 'farhana.afaf@gmail.com', '+8801234567831', '2020-01-27', 'JOB002', 30000, 0.04, 'MNG002', 'DPT007'),
('EMP015', 'Naima', 'Tanjila', 'tanjila.naima@outlook.com', '+8801234567890', '2010-01-12', 'JOB001', 110000, 0.20, 'MNG003', 'DPT001'),
('EMP016', 'Sanzida', 'Afrin', 'sanzida.afrin@outlook.com', '+8801234567210', '2016-01-12', 'JOB002', 80000, 0.15, 'MNG004', 'DPT003');

1.

```
MariaDB [assignment02]> select first_name,last_name,email,phone_number,hire_date,department_id from employee order by hire_date desc;
+------------+-----------+----------------------------+----------------+------------+---------------+
| first_name | last_name | email                      | phone_number   | hire_date  | department_id |
+------------+-----------+----------------------------+----------------+------------+---------------+
| Muhtadi    | Mabin     | mabib.muh11tadi@gmail.com  | +8801234567840 | 2023-01-03 | DPT007        |
| Nahid      | Abrar     | nahid0010@abc.com          | +8801234567899 | 2022-01-20 | DPT005        |
| Tasneem    | Haque     | tasneemmmm11@gmail.com     | +8801234567820 | 2021-02-11 | DPT006        |
| Naima      | Jahan     | naima.jahan@gmail.com      | +8801234567897 | 2021-01-15 | DPT005        |
| Arafat     | Talukder  | arafat0001@gmail.com       | +8801234567894 | 2020-02-14 | DPT003        |
| Farhana    | Afaf      | farhana.afaf@gmail.com     | +8801234567831 | 2020-01-27 | DPT007        |
| Arafat     | Hossain   | arafat0101@gmail.com       | +8801234567810 | 2019-11-12 | DPT006        |
| Muhtadi    | Hasan     | muh.tadi@gmail.com         | +8801234567896 | 2019-05-29 | DPT004        |
| Nahid      | Islam     | nahidislam007@outlook.com  | +8801234567893 | 2018-11-11 | DPT002        |
| Tasneem    | Jahan     | tasneemjahan@yahoo.com     | +8801234567895 | 2018-01-12 | DPT003        |
| Nafis      | Ahmed     | nafishossain@hotmail.com   | +8801234567891 | 2017-01-15 | DPT001        |
| Tasneem    | Habib     | tasnim002@gmail.com        | +8801234567892 | 2016-10-12 | DPT002        |
| Sanzida    | Afrin     | sanzida.afrin@outlook.com  | +8801234567210 | 2016-01-12 | DPT003        |
| Abir       | Hossain   | abir.hossain@abc.com       | +8801234567890 | 2015-09-15 | DPT001        |
| Farhana    | Roja      | roja.farhana@xyz.com       | +8801234567898 | 2015-02-19 | DPT004        |
| Naima      | Tanjila   | tanjila.naima@outlook.com  | +8801234567890 | 2010-01-12 | DPT001        |
+------------+-----------+----------------------------+----------------+------------+---------------+
16 rows in set (0.000 sec)
```

select first_name,last_name,email,phone_number,hire_date,department_id from employee order by hire_date desc;

2.

```
MariaDB [assignment02]> select first_name,last_name,employee_id,phone_number,salary,department_id from employee where (department_id,salary) in (select department_id,min(salary) from employee group by department_id);
+------------+-----------+-------------+----------------+--------+---------------+
| first_name | last_name | employee_id | phone_number   | salary | department_id |
+------------+-----------+-------------+----------------+--------+---------------+
| Nafis      | Ahmed     | EMP002      | +8801234567891 | 50000  | DPT001        |
| Nahid      | Islam     | EMP004      | +8801234567893 | 40000  | DPT002        |
| Arafat     | Talukder  | EMP005      | +8801234567894 | 25000  | DPT003        |
| Muhtadi    | Hasan     | EMP007      | +8801234567896 | 40000  | DPT004        |
| Nahid      | Abrar     | EMP010      | +8801234567899 | 18000  | DPT005        |
| Tasneem    | Haque     | EMP012      | +8801234567820 | 20000  | DPT006        |
| Muhtadi    | Mabin     | EMP013      | +8801234567840 | 10000  | DPT007        |
+------------+-----------+-------------+----------------+--------+---------------+
7 rows in set (0.001 sec)
```

select first_name,last_name,employee_id,phone_number,salary,department_id from employee where (department_id,salary) in (select department_id,min(salary) from employee group by department_id);

3.

```
MariaDB [assignment02]> select first_name,last_name,employee_id,commission_pct,department_id from employee where department_id='DPT007' and commission_pct<all(select commission_pct from employee where department_id='DPT005');
Empty set (0.001 sec)
```

select first_name,last_name,employee_id,commission_pct,department_id from employee where department_id='DPT007' and commission_pct<all(select commission_pct from employee where department_id='DPT005');

4.

```
MariaDB [assignment02]> select department_id,count(*) from employee group by department_id having max(salary)<=30000;
+---------------+----------+
| department_id | count(*) |
+---------------+----------+
| DPT005        |        2 |
| DPT007        |        2 |
+---------------+----------+
2 rows in set (0.000 sec)
```

select department_id,count(*) from employee group by department_id having
max(salary)<=30000;

5.

```
MariaDB [assignment02]> select department_id,job_id,commission_pct from employee e1 where commission_pct<any(select commission_pct from employee e2 where e1.department_
id=e2.department_id and not e1.job_id=e2.job_id);
+---------------+--------+----------------+
| department_id | job_id | commission_pct |
+---------------+--------+----------------+
| DPT001        | JOB002 |          0.060 |
| DPT002        | JOB002 |          0.030 |
| DPT003        | JOB001 |          0.010 |
| DPT004        | JOB001 |          0.010 |
| DPT006        | JOB002 |          0.010 |
| DPT007        | JOB002 |          0.040 |
+---------------+--------+----------------+
6 rows in set (0.001 sec)
```

select department_id,job_id,commission_pct from employee e1 where
commission_pct<any(select commission_pct from employee e2 where
e1.department_id=e2.department_id and not e1.job_id=e2.job_id);

6.

```
MariaDB [assignment02]> select manager_id,salary from Employee group by manager_id having salary>3500;
+------------+--------+
| manager_id | salary |
+------------+--------+
| MNG001     |  70000 |
| MNG002     |  50000 |
| MNG003     |  65000 |
| MNG004     |  40000 |
+------------+--------+
4 rows in set (0.000 sec)
```

select manager_id,salary from Employee group by manager_id having salary>3500;

7.

```
MariaDB [assignment02]> select first_name,last_name,employee_id,email,salary,department_id,commission_pct from employee where(manager_id,commission_pct) in (select mana
ger_id,min(commission_pct) from employee group by manager_id);
+------------+-----------+-------------+-----------------------+--------+---------------+----------------+
| first_name | last_name | employee_id | email                 | salary | department_id | commission_pct |
+------------+-----------+-------------+-----------------------+--------+---------------+----------------+
| Arafat     | Talukder  | EMP005      | arafat0001@gmail.com  |  25000 | DPT003        |          0.010 |
| Muhtadi    | Hasan     | EMP007      | muh.tadi@gmail.com    |  40000 | DPT004        |          0.010 |
| Naima      | Jahan     | EMP009      | naima.jahan@gmail.com |  20000 | DPT005        |          0.010 |
| Nahid      | Abrar     | EMP010      | nahid0010@abc.com     |  18000 | DPT005        |          0.010 |
| Tasneem    | Haque     | EMP012      | tasneemmmm11@gmail.com|  20000 | DPT006        |          0.010 |
+------------+-----------+-------------+-----------------------+--------+---------------+----------------+
5 rows in set (0.000 sec)
```

select first_name,last_name,employee_id,email,salary,department_id,commission_pct from
employee where(manager_id,commission_pct) in (select manager_id,min(commission_pct) from
employee group by manager_id);