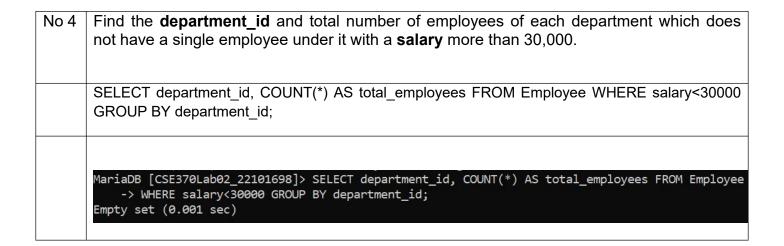| Table Name: *Employee*	
Attribute Name	**Attribute type**
employee_id	char(10)
first_name	varchar(20)
last_name	varchar(20)
email	varchar(60)
phone_number	char(14)
hire_date	date
job_id	char(10)
salary	int
commission_pct	decimal(5,3)
manager_id	char(10)
department_id	char(10)

No 0	Create Table and Insert data
	INSERT INTO Employee values ('EMP001', 'Obayed', 'Haque', 'abc@gmail.com', '018164', '2024-03-04', 'JOB001', 95000, 0.150, 'MNG001', 'DPT001'), ('EMP002', 'Shuhan', 'Rizwan', 'def@gmail.com', '017126', '2024-01-01', 'JOB002', 90000, 0.250, 'MNG002', 'DPT002'), ('EMP003', 'Nabil', 'Muhtasim', 'ghi@gmail.com', '017644', '2024-01-15', 'JOB003', 85000, 0.350, 'MNG003', 'DPT003'), ('EMP004', 'Washi', 'Ahmed', 'jkl@gmail.com', '016270', '2024-02-15', 'JOB004', 80000, 0.450, 'MNG004', 'DPT004'), ('EMP005', 'Ahmed', 'Ishtiaque', 'mno@gmail.com', '018930', '2024-03-10', 'JOB005', 75000, 0.550, 'MNG005', 'DPT005'), ('EMP006', 'Sadat', 'Hossain', 'pqr@gmail.com', '013099', '2024-02-15', 'JOB006', 70000, 0.650, 'MNG001', 'DPT006'), ('EMP007', 'Asif', 'Mahdi', 'stu@gmail.com', '016807', '2024-03-26', 'JOB007', 65000, 0.750, 'MNG002', 'DPT007'), ('EMP008', 'Jobaed', 'Ahsan', 'vwx@gmail.com', '017157', '2024-03-26', 'JOB008', 60000, 0.850, 'MNG003', 'DPT007'), ('EMP009', 'Shahidul', 'Zahir', 'xyz@gmail.com', '019992', '2024-01-22', 'JOB009', 50000, 0.950, 'MNG004', 'DPT006'), ('EMP010', 'Rasid', 'Haider', 'axb@gmail.com', '019521', '2024-01-10', 'JOB010', 55000, 0.251, 'MNG005', 'DPT005'), ('EMP011', 'Neamat', 'Iman', 'ydj@gmail.com', '013165', '2024-02-14', 'JOB011', 45000, 0.551, 'MNG001', 'DPT007'), ('EMP012', 'Imdadul', 'Haq', 'kud@gmail.com', '019534', '2024-02-10', 'JOB012', 40000, 0.651, 'MNG002', 'DPT005'), ('EMP013', 'Mashfiq', 'Enam', 'brb@gmail.com', '015343', '2024-01-14', 'JOB013', 35000, 0.951, 'MNG003', 'DPT001');

```
MariaDB [CSE370Lab02_22101698]> 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 (0.039 sec)
```

```
MariaDB [CSE370Lab02_22101698]> INSERT INTO Employee values
    -> ('EMP001', 'Obayed', 'Haque', 'abc@gmail.com', '018164', '2024-03-04', 'JOB001',95000, 0.150, 'MNG001', 'DPT001'),
    -> ('EMP002', 'Shuhan', 'Rizwan', 'def@gmail.com', '017126', '2024-01-01', 'JOB002',90000, 0.250, 'MNG002', 'DPT002'),
    -> ('EMP003', 'Nabil', 'Muhtasim', 'ghi@gmail.com', '017644', '2024-01-15', 'JOB003',85000, 0.350, 'MNG003', 'DPT003'),
    -> ('EMP004', 'Washi', 'Ahmed', 'jkl@gmail.com', '016270', '2024-02-15', 'JOB004',80000, 0.450, 'MNG004', 'DPT004'),
    -> ('EMP005', 'Ahmed', 'Ishtiaque', 'mno@gmail.com', '018930', '2024-03-10', 'JOB005',75000, 0.550, 'MNG005', 'DPT005'),
    -> ('EMP006', 'Sadat', 'Hossain', 'pqr@gmail.com', '013099', '2024-02-15', 'JOB006',70000, 0.650, 'MNG001', 'DPT006'),
    -> ('EMP007', 'Asif', 'Mahdi', 'stu@gmail.com', '016807', '2024-03-26', 'JOB007',65000, 0.750, 'MNG002', 'DPT007'),
    -> ('EMP008', 'Jobaed', 'Ahsan', 'vwx@gmail.com', '017157', '2024-03-26', 'JOB008',60000, 0.850, 'MNG003', 'DPT007'),
    -> ('EMP009', 'Shahidul', 'Zahir', 'xyz@gmail.com', '019992', '2024-01-22', 'JOB009',50000, 0.950, 'MNG004', 'DPT006'),
    -> ('EMP010', 'Rasid', 'Haider', 'axb@gmail.com', '019521', '2024-01-10', 'JOB010',55000, 0.251, 'MNG005', 'DPT005'),
    -> ('EMP011', 'Neamat', 'Iman', 'ydj@gmail.com', '013165', '2024-02-14', 'JOB011',45000, 0.551, 'MNG001', 'DPT007'),
    -> ('EMP012', 'Imdadul', 'Haq', 'kud@gmail.com', '019534', '2024-02-10', 'JOB012',40000, 0.651, 'MNG002', 'DPT005'),
    -> ('EMP013', 'Mashfiq', 'Enam', 'brb@gmail.com', '015343', '2024-01-14', 'JOB013',35000, 0.951, 'MNG003', 'DPT001');
Query OK, 13 rows affected (0.108 sec)
Records: 13  Duplicates: 0  Warnings: 0
```

```
MariaDB [CSE370Lab02_22101698]> SELECT * FROM Employee;
+-------------+------------+-----------+---------------+--------------+------------+--------+--------+----------------+------------+---------------+
| employee_id | first_name | last_name | email         | phone_number | hire_date  | job_id | salary | commission_pct | manager_id | department_id |
+-------------+------------+-----------+---------------+--------------+------------+--------+--------+----------------+------------+---------------+
| EMP001      | Obayed     | Haque     | abc@gmail.com | 018164       | 2024-03-04 | JOB001 | 95000  |          0.150 | MNG001     | DPT001        |
| EMP002      | Shuhan     | Rizwan    | def@gmail.com | 017126       | 2024-01-01 | JOB002 | 90000  |          0.250 | MNG002     | DPT002        |
| EMP003      | Nabil      | Muhtasim  | ghi@gmail.com | 017644       | 2024-01-15 | JOB003 | 85000  |          0.350 | MNG003     | DPT003        |
| EMP004      | Washi      | Ahmed     | jkl@gmail.com | 016270       | 2024-02-15 | JOB004 | 80000  |          0.450 | MNG004     | DPT004        |
| EMP005      | Ahmed      | Ishtiaque | mno@gmail.com | 018930       | 2024-03-10 | JOB005 | 75000  |          0.550 | MNG005     | DPT005        |
| EMP006      | Sadat      | Hossain   | pqr@gmail.com | 013099       | 2024-02-15 | JOB006 | 70000  |          0.650 | MNG001     | DPT006        |
| EMP007      | Asif       | Mahdi     | stu@gmail.com | 016807       | 2024-03-26 | JOB007 | 65000  |          0.750 | MNG002     | DPT007        |
| EMP008      | Jobaed     | Ahsan     | vwx@gmail.com | 017157       | 2024-03-26 | JOB008 | 60000  |          0.850 | MNG003     | DPT007        |
| EMP009      | Shahidul   | Zahir     | xyz@gmail.com | 019992       | 2024-01-22 | JOB009 | 50000  |          0.950 | MNG004     | DPT006        |
| EMP010      | Rasid      | Haider    | axb@gmail.com | 019521       | 2024-01-10 | JOB010 | 55000  |          0.251 | MNG005     | DPT005        |
| EMP011      | Neamat     | Iman      | ydj@gmail.com | 013165       | 2024-02-14 | JOB011 | 45000  |          0.551 | MNG001     | DPT007        |
| EMP012      | Imdadul    | Haq       | kud@gmail.com | 019534       | 2024-02-10 | JOB012 | 40000  |          0.651 | MNG002     | DPT005        |
| EMP013      | Mashfiq    | Enam      | brb@gmail.com | 015343       | 2024-01-14 | JOB013 | 35000  |          0.951 | MNG003     | DPT001        |
+-------------+------------+-----------+---------------+--------------+------------+--------+--------+----------------+------------+---------------+
13 rows in set (0.001 sec)
```

No 1	Find the **first_name, last_name, email, phone_number, hire_date** and **department_id** of all the employees with the latest **hire_date**.
	SELECT first_name, last_name, email, phone_number, hire_date, department_id -> FROM Employee WHERE hire_date=(SELECT MAX(hire_date) FROM Employee);
	 `` MariaDB [CSE370Lab02_22101698]> 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 | +------------+-----------+---------------+--------------+------------+---------------+ | Asif	Mahdi	stu@gmail.com	016807	2024-03-26	DPT007
Jobaed	Ahsan	vwx@gmail.com	017157	2024-03-26	DPT007	 +------------+-----------+---------------+--------------+------------+---------------+ 2 rows in set (0.002 sec) ```

No 2	Find the *first_name*, *last_name*, *employee_id*, *phone_number*, *salary* and *department_id* of all the employees with the lowest **salary** in each department.
	SELECT first_name, last_name, employee_id, phone_number, salary, department_id FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.department_id);
| | ```
MariaDB [CSE370Lab02_22101698]> SELECT first_name, last_name, employee_id, phone_number, salary, department_id
    -> FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.department_id);
+------------+-----------+-------------+--------------+--------+---------------+
| first_name | last_name | employee_id | phone_number | salary | department_id |
+------------+-----------+-------------+--------------+--------+---------------+
| Shuhan     | Rizwan    | EMP002      | 017126       |  90000 | DPT002        |
| Nabil      | Muhtasim  | EMP003      | 017644       |  85000 | DPT003        |
| Washi      | Ahmed     | EMP004      | 016270       |  80000 | DPT004        |
| Shahidul   | Zahir     | EMP009      | 019992       |  50000 | DPT006        |
| Neamat     | Iman      | EMP011      | 013165       |  45000 | DPT007        |
| Imdadul    | Haq       | EMP012      | 019534       |  40000 | DPT005        |
| Mashfiq    | Enam      | EMP013      | 015343       |  35000 | DPT001        |
+------------+-----------+-------------+--------------+--------+---------------+
7 rows in set (0.001 sec)
``` |

No 3	Find the *first_name*, *last_name*, *employee_id*, *commission_pct* and *department_id* of all the employees in the department 'DPT007' who have a lower commission_pct than all of the department 'DPT005' employees.
	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'); |
| | ```
MariaDB [CSE370Lab02_22101698]> 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 (0.002 sec)
``` |

No 4	Find the **department_id** and total number of employees of each department which does not have a single employee under it with a **salary** more than 30,000.
	SELECT department_id, COUNT(*) AS total_employees FROM Employee WHERE salary<30000 GROUP BY department_id;
| | ```
MariaDB [CSE370Lab02_22101698]> SELECT department_id, COUNT(*) AS total_employees FROM Employee
    -> WHERE salary<30000 GROUP BY department_id;
Empty set (0.001 sec)
``` |

No 5	For each department, find the **department_id**, **job_id** and **commission_pct** with **commission_pct** less than at least one other **job_id** in that department.
	SELECT department_id, job_id, commission_pct FROM Employee L1 WHERE commission_pct < ANY(SELECT commission_pct FROM Employee L2 WHERE L2.department_id = L1.department_id and L2.job_id != L1.job_id);
| | ```
MariaDB [CSE370Lab02_22101698]> SELECT department_id, job_id, commission_pct FROM Employee L1 WHERE commission_pct < ANY(
    -> SELECT commission_pct FROM Employee L2 WHERE L2.department_id = L1.department_id and L2.job_id != L1.job_id);
+---------------+--------+----------------+
| department_id | job_id | commission_pct |
+---------------+--------+----------------+
| DPT001        | JOB001 |          0.150 |
| DPT005        | JOB005 |          0.550 |
| DPT006        | JOB006 |          0.650 |
| DPT007        | JOB007 |          0.750 |
| DPT005        | JOB010 |          0.251 |
| DPT007        | JOB011 |          0.551 |
+---------------+--------+----------------+
6 rows in set (0.002 sec)
``` |

No 6	Find the **manager_id** who does not have any employee under them with a **salary** less than 3500.
	SELECT DISTINT manager_id FROM Employee L1 WHERE not exists(SELECT * FROM Employee L2 WHERE L2.manager_id = L1.manager_id and L2.salary<3500);
| | ```
MariaDB [CSE370Lab02_22101698]> SELECT DISTINCT manager_id FROM Employee L1 WHERE not exists(
    ->  SELECT * FROM Employee L2 WHERE L2.manager_id = L1.manager_id and L2.salary<3500);
+------------+
| manager_id |
+------------+
| MNG001     |
| MNG002     |
| MNG003     |
| MNG004     |
| MNG005     |
+------------+
5 rows in set (0.001 sec)
``` |

No 7	Find the *first_name, last_name, employee_id, email, salary, department_id* and *commission_pct* of the employee with the lowest *commission_pct* under each manager.
	SELECT first_name, last_name, employee_id, salary, department_id, commission_pct FROM Employee L1 WHERE commission_pct=(SELECT MIN(commission_pct) FROM Employee L2 WHERE L2.manager_id=L1.manager_id);

```
MariaDB [CSE370Lab02_22101698]> SELECT first_name, last_name, employee_id, salary, department_id, commission_pct
    -> FROM Employee L1 WHERE commission_pct=(SELECT MIN(commission_pct) FROM Employee L2 WHERE L2.manager_id=L1.manager_id);
+------------+-----------+-------------+--------+---------------+----------------+
| first_name | last_name | employee_id | salary | department_id | commission_pct |
+------------+-----------+-------------+--------+---------------+----------------+
| Obayed     | Haque     | EMP001      |  95000 | DPT001        |          0.150 |
| Shuhan     | Rizwan    | EMP002      |  90000 | DPT002        |          0.250 |
| Nabil      | Muhtasim  | EMP003      |  85000 | DPT003        |          0.350 |
| Washi      | Ahmed     | EMP004      |  80000 | DPT004        |          0.450 |
| Rasid      | Haider    | EMP010      |  55000 | DPT005        |          0.251 |
+------------+-----------+-------------+--------+---------------+----------------+
5 rows in set (0.001 sec)
```