

CSE-370

**Lab Assignment - 02**

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**Section:** 04

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## **Create Employee Table with Appropriate Data :**

```
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)  
);
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0072 seconds.)

```
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)  
);
```

[\[ Edit inline \]](#) [\[ Edit \]](#) [\[ Create PHP code \]](#)

### **Dummy Data to Populate the DB (randomly generated and changed for usage):**

INSERT INTO Employee VALUES ('EMP001', 'John', 'smith', 'john.smith@google.com', '01798154562', '2020-07-18', 'JOB001', 30000, 0.5, 'MNG01', 'DPT001');

INSERT INTO Employee VALUES ('EMP002', 'Olivia', 'taylor', 'olivia.taylor@yahoo.com', '123-456-7890', '2021-03-15', 'JOB002', 20000, 0.6, 'MNG01', 'DPT002');

INSERT INTO Employee VALUES ('EMP003', 'Jane', 'Smith', 'jane.smith@google.com', '987-654-3210', '2019-11-20', 'JOB003', 35000, 0.4, 'MNG01', 'DPT003');

INSERT INTO Employee VALUES ('EMP004', 'Michael', 'Johnson', 'michael.johnson@google.com', '555-555-5555', '2020-05-10', 'JOB004', 45000, 0.7, 'MNG02', 'DPT001');

INSERT INTO Employee VALUES ('EMP005', 'Ava', 'harris', 'ava.harris@gmail.com', '111-222-3333', '2022-02-28', 'JOB001', 50000, 0.87, 'MNG02', 'DPT007');

INSERT INTO Employee VALUES ('EMP006', 'David', 'Martinez', 'david.martinez@gmail.com', '999-888-7777', '2023-01-05', 'JOB001', 55000, 0.3, 'MNG02', 'DPT007');

INSERT INTO Employee VALUES ('EMP007', 'Jessica', 'Garcia', 'jessica.garcia@yahoo.com', '777-777-7777', '2021-09-12', 'JOB002', 60000, 0.9, 'MNG02', 'DPT003');

INSERT INTO Employee VALUES ('EMP008', 'Daniel', 'Lopez', 'daniel.lopez@yahoo.com', '333-444-5555', '2020-08-25', 'JOB002', 65000, 0.2, 'MNG03', 'DPT001');

INSERT INTO Employee VALUES ('EMP009', 'Sarah', 'Young', 'sarah.young@hotmail.com', '666-999-8888', '2019-12-30', 'JOB003', 10000, 0.5, 'MNG04', 'DPT002');

INSERT INTO Employee VALUES ('EMP010', 'Christopher', 'Hill', 'christopher.hill@google.com', '222-333-4444', '2022-04-17', 'JOB03', 15000, 0.6, 'MNG03', 'DPT002');

INSERT INTO Employee VALUES ('EMP011', 'Amanda', 'Scott', 'amanda.scott@yahoo.com', '444-555-6666', '2023-03-08', 'JOB03', 80000, 0.7, 'MNG03', 'DPT003');

INSERT INTO Employee VALUES ('EMP012', 'Justin', 'Green', 'justin.green@google.com', '888-777-6666', '2021-11-25', 'JOB04', 85000, 0.8, 'MNG03', 'DPT003');

INSERT INTO Employee VALUES ('EMP013', 'Elizabeth', 'Adams', 'elizabeth.adams@google.com', '123-456-7890', '2020-06-30', 'JOB04', 9000, 0.9, 'MNG04', 'DPT002');

```
INSERT INTO Employee VALUES ('EMP014', 'Kevin', 'Baker', 'kevin.baker@google.com',  
'987-654-3210', '2019-10-15', 'JOB04', 95000, 0.4, 'MNG04', 'DPT003');
```

```
INSERT INTO Employee VALUES ('EMP015', 'Melissa', 'King', 'melissa.king@google.com',  
'555-555-5555', '2020-04-05', 'JOB04', 100000, 0.6, 'MNG05', 'DPT005');
```

```
INSERT INTO Employee VALUES ('EMP016', 'Ryan', 'Ward', 'ryan.ward@google.com', '111-222-3333',  
'2022-01-23', 'JOB01', 105000, 0.2, 'MNG05', 'DPT001');
```

```
INSERT INTO Employee VALUES ('EMP017', 'Rachel', 'Rivera', 'rachel.rivera@google.com',  
'999-888-7777', '2023-02-10', 'JOB01', 110000, 0.6, 'MNG06', 'DPT005');
```

```
INSERT INTO Employee VALUES ('EMP018', 'Jacob', 'Mitchell', 'jacob.mitchell@google.com',  
'777-777-7777', '2021-08-18', 'JOB02', 115000, 0.8, 'MNG07', 'DPT005');
```

```
INSERT INTO Employee VALUES ('EMP019', 'Lauren', 'Perez', 'lauren.perez@yahoo.com',  
'333-444-5555', '2020-09-29', 'JOB02', 120000, 0.5, 'MNG09', 'DPT007');
```

```
INSERT INTO Employee VALUES ('EMP020', 'Brandon', 'Roberts', 'brandon.roberts@yahoo.com',  
'666-999-8888', '2019-11-08', 'JOB05', 125000, 0.7, 'MNG05', 'DPT007');
```

✔ 1 row inserted. (Query took 0.0003 seconds.)

```
INSERT INTO Employee VALUES ('EMP001', 'John', 'Smith', 'john.smith@google.com', '01798154562', '2020-07-18', 'JOB001', 30000, 0.5, 'MNG01', 'DPT001');
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

✔ 1 row inserted. (Query took 0.0003 seconds.)

```
INSERT INTO Employee VALUES ('EMP002', 'Olivia', 'Taylor', 'olivia.taylor@yahoo.com', '123-456-7890', '2021-03-15', 'JOB002', 20000, 0.6, 'MNG01', 'DPT002');
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

✔ 1 row inserted. (Query took 0.0003 seconds.)

```
INSERT INTO Employee VALUES ('EMP003', 'Jane', 'Smith', 'jane.smith@google.com', '987-654-3210', '2019-11-20', 'JOB003', 35000, 0.4, 'MNG01', 'DPT003');
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

✔ 1 row inserted. (Query took 0.0015 seconds.)

```
INSERT INTO Employee VALUES ('EMP004', 'Michael', 'Johnson', 'michael.johnson@google.com', '555-555-5555', '2020-05-10', 'JOB004', 45000, 0.7, 'MNG02', 'DPT001');
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

✔ 1 row inserted. (Query took 0.0003 seconds.)

```
INSERT INTO Employee VALUES ('EMP005', 'Ava', 'Harris', 'ava.harris@gmail.com', '111-222-3333', '2022-02-28', 'JOB001', 50000, 0.87, 'MNG02', 'DPT007');
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

✔ 1 row inserted. (Query took 0.0003 seconds.)

```
INSERT INTO Employee VALUES ('EMP006', 'David', 'Martinez', 'david.martinez@gmail.com', '999-888-7777', '2023-01-05', 'JOB001', 55000, 0.3, 'MNG02', 'DPT007');
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

# TASK 1:

**Command:** `use assignment2;`

```
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 ▼ 1	department_id
Amanda	Scott	amanda.scott@yahoo.com	444-555-6666	2023-03-08	DPT003
Rachel	Rivera	rachel.rivera@google.com	999-888-7777	2023-02-10	DPT005
David	Martinez	david.martinez@gmail.com	999-888-7777	2023-01-05	DPT007
Christopher	Hill	christopher.hill@google.com	222-333-4444	2022-04-17	DPT002
Ava	harris	ava.harris@gmail.com	111-222-3333	2022-02-28	DPT007
Ryan	Ward	ryan.ward@google.com	111-222-3333	2022-01-23	DPT001
Justin	Green	justin.green@google.com	888-777-6666	2021-11-25	DPT003
Jessica	Garcia	jessica.garcia@yahoo.com	777-777-7777	2021-09-12	DPT003
Jacob	Mitchell	jacob.mitchell@google.com	777-777-7777	2021-08-18	DPT005
Olivia	taylor	olivia.taylor@yahoo.com	123-456-7890	2021-03-15	DPT002
Lauren	Perez	lauren.perez@yahoo.com	333-444-5555	2020-09-29	DPT007
Daniel	Lopez	daniel.lopez@yahoo.com	333-444-5555	2020-08-25	DPT001
John	smith	john.smith@google.com	01798154562	2020-07-18	DPT001
Elizabeth	Adams	elizabeth.adams@google.com	123-456-7890	2020-06-30	DPT002
Michael	Johnson	michael.johnson@google.com	555-555-5555	2020-05-10	DPT001
Melissa	King	melissa.king@google.com	555-555-5555	2020-04-05	DPT005
Sarah	Young	sarah.young@hotmail.com	666-999-8888	2019-12-30	DPT002
Jane	Smith	jane.smith@google.com	987-654-3210	2019-11-20	DPT003
Brandon	Roberts	brandon.roberts@yahoo.com	666-999-8888	2019-11-08	DPT007
Kevin	Baker	kevin.baker@google.com	987-654-3210	2019-10-15	DPT003

## TASK 2:

### Command:

```
SELECT * FROM Employee; (To check the queries data)
```

employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	commission_pct	manager_id	department_id
EMP001	John	smith	john.smith@google.com	01798154562	2020-07-18	JOB001	30000	0.500	MNG01	DPT001
EMP002	Olivia	taylor	olivia.taylor@yahoo.com	123-456-7890	2021-03-15	JOB002	20000	0.600	MNG01	DPT002
EMP003	Jane	Smith	jane.smith@google.com	987-654-3210	2019-11-20	JOB003	35000	0.400	MNG01	DPT003
EMP004	Michael	Johnson	michael.johnson@google.com	555-555-5555	2020-05-10	JOB004	45000	0.700	MNG02	DPT001
EMP005	Ava	harris	ava.harris@gmail.com	111-222-3333	2022-02-28	JOB001	50000	0.870	MNG02	DPT007
EMP006	David	Martinez	david.martinez@gmail.com	999-888-7777	2023-01-05	JOB001	55000	0.300	MNG02	DPT007
EMP007	Jessica	Garcia	jessica.garcia@yahoo.com	777-777-7777	2021-09-12	JOB002	60000	0.900	MNG02	DPT003
EMP008	Daniel	Lopez	daniel.lopez@yahoo.com	333-444-5555	2020-08-25	JOB002	65000	0.200	MNG03	DPT001
EMP009	Sarah	Young	sarah.young@hotmail.com	666-999-8888	2019-12-30	JOB003	10000	0.500	MNG04	DPT002
EMP010	Christopher	Hill	christopher.hill@google.com	222-333-4444	2022-04-17	JOB03	15000	0.600	MNG03	DPT002
EMP011	Amanda	Scott	amanda.scott@yahoo.com	444-555-6666	2023-03-08	JOB03	80000	0.700	MNG03	DPT003
EMP012	Justin	Green	justin.green@google.com	888-777-6666	2021-11-25	JOB04	85000	0.800	MNG03	DPT003
EMP013	Elizabeth	Adams	elizabeth.adams@google.com	123-456-7890	2020-06-30	JOB04	9000	0.900	MNG04	DPT002
EMP014	Kevin	Baker	kevin.baker@google.com	987-654-3210	2019-10-15	JOB04	95000	0.400	MNG04	DPT003
EMP015	Melissa	King	melissa.king@google.com	555-555-5555	2020-04-05	JOB04	100000	0.600	MNG05	DPT005
EMP016	Ryan	Ward	ryan.ward@google.com	111-222-3333	2022-01-23	JOB01	105000	0.200	MNG05	DPT001
EMP017	Rachel	Rivera	rachel.rivera@google.com	999-888-7777	2023-02-10	JOB01	110000	0.600	MNG06	DPT005
EMP018	Jacob	Mitchell	jacob.mitchell@google.com	777-777-7777	2021-08-18	JOB02	115000	0.800	MNG07	DPT005
EMP019	Lauren	Perez	lauren.perez@yahoo.com	333-444-5555	2020-09-29	JOB02	120000	0.500	MNG09	DPT007
EMP020	Brandon	Roberts	brandon.roberts@yahoo.com	666-999-8888	2019-11-08	JOB05	125000	0.700	MNG05	DPT007

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

first_name	last_name	employee_id	phone_number	salary	department_id
John	smith	EMP001	01798154562	30000	DPT001
Jane	Smith	EMP003	987-654-3210	35000	DPT003
Ava	harris	EMP005	111-222-3333	50000	DPT007
Elizabeth	Adams	EMP013	123-456-7890	9000	DPT002
Melissa	King	EMP015	555-555-5555	100000	DPT005

## TASK 3:

### Command:

```
SELECT first_name, last_name, employee_id, commission_pct,  
department_id FROM employee WHERE department_id = 'DPT007' AND  
commission_pct < (SELECT min(commission_pct) from employee WHERE  
department_id = 'DPT005');
```

first_name	last_name	employee_id	commission_pct	department_id
David	Martinez	EMP006	0.300	DPT007
Lauren	Perez	EMP019	0.500	DPT007

## TASK 4:

### Command:

```
SELECT department_id, COUNT(*) FROM Employee WHERE department_id  
NOT IN (SELECT department_id FROM Employee WHERE salary > 30000)  
GROUP BY department_id;
```

department_id	COUNT(*)
DPT002	4

## TASK 5:

### Command:

```
SELECT department_id, job_id, commission_pct FROM Employee employee WHERE  
commission_pct < ANY (SELECT commission_pct FROM Employee employees WHERE  
employee.department_id = employees.department_id AND employee.job_id !=  
employees.job_id);
```

department_id	job_id	commission_pct
DPT001	JOB001	0.500
DPT002	JOB002	0.600
DPT003	JOB003	0.400
DPT007	JOB001	0.300
DPT001	JOB002	0.200
DPT002	JOB003	0.500
DPT002	JOB03	0.600
DPT003	JOB03	0.700
DPT003	JOB04	0.800
DPT003	JOB04	0.400
DPT005	JOB04	0.600
DPT001	JOB01	0.200
DPT005	JOB01	0.600
DPT007	JOB02	0.500
DPT007	JOB05	0.700



## TASK 6:

### Command:

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

manager_id
MNG01
MNG02
MNG03
MNG04
MNG05
MNG06
MNG07
MNG09

## TASK 7:

### Command:

```
SELECT first_name, last_name, employee_id, email, salary,  
department_id, commission_pct FROM Employee employee WHERE  
(employee.manager_id, employee.commission_pct) IN (SELECT  
manager_id, MIN(commission_pct) FROM Employee employees  
GROUP BY employees.manager_id);
```

first_name	last_name	employee_id	email	salary	department_id	commission_pct
Jane	Smith	EMP003	jane.smith@google.com	35000	DPT003	0.400
David	Martinez	EMP006	david.martinez@gmail.com	55000	DPT007	0.300
Daniel	Lopez	EMP008	daniel.lopez@yahoo.com	65000	DPT001	0.200
Kevin	Baker	EMP014	kevin.baker@google.com	95000	DPT003	0.400
Ryan	Ward	EMP016	ryan.ward@google.com	105000	DPT001	0.200
Rachel	Rivera	EMP017	rachel.rivera@google.com	110000	DPT005	0.600
Jacob	Mitchell	EMP018	jacob.mitchell@google.com	115000	DPT005	0.800
Lauren	Perez	EMP019	lauren.perez@yahoo.com	120000	DPT007	0.500

### Add Commands as plain text :

#### To Create Database

- **create DATABASE** assignment2;

#### To Create Table

- **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)  
);

#### To Show Table Information

- **show tables;**

#### To Show all Data of Created Table

- **select \* from** Employee;

#### To work in particular Database

- **use** assignment2;

## Task-1

- **SELECT** first\_name, last\_name, email, phone\_number, hire\_date, department\_id  
**FROM** EMPLOYEE **ORDER BY** hire\_date **DESC**;

## Task-2

- **SELECT** first\_name, last\_name, employee\_id, phone\_number, salary, department\_id  
**from** employee **where** (salary, department\_id) **in** (**select** **MIN**(salary), department\_id  
**from** employee **group by** department\_id);

## Task-3

- **SELECT** first\_name, last\_name, employee\_id, commission\_pct, department\_id **FROM**  
employee **WHERE** department\_id = 'DPT007' **AND** commission\_pct < (**SELECT**  
**min**(commission\_pct) **from** employee **WHERE** department\_id = 'DPT005');

## Task-4

- **SELECT** department\_id, **COUNT**(\*) **FROM** Employee **WHERE** department\_id **NOT**  
**IN** (**SELECT** department\_id **FROM** Employee **WHERE** salary > 30000) **GROUP BY**  
department\_id;

## Task-5

- **SELECT** department\_id, job\_id, commission\_pct **FROM** Employee employee **WHERE**  
commission\_pct < **ANY** (**SELECT** commission\_pct **FROM** Employee employees  
**WHERE** employee.department\_id = employees.department\_id **AND**  
employee.job\_id != employees.job\_id);

## Task-6

- **SELECT** **DISTINCT** manager\_id **FROM** Employee **WHERE** manager\_id **NOT IN**  
(**SELECT** **DISTINCT** manager\_id **FROM** Employee **WHERE** salary < 3500);

## Task-7

- **SELECT** first\_name, last\_name, employee\_id, email, salary, department\_id,  
commission\_pct **FROM** Employee employee **WHERE** (employee.manager\_id,  
employee.commission\_pct) **IN** (**SELECT** manager\_id, **MIN**(commission\_pct) **FROM**  
Employee employees **GROUP BY** employees.manager\_id);