

CSE370 : Database Systems

Assignment 02 | Fall 2024

ID : 22301689 | Name : TASNIM RAHMAN MOUMITA

Table Employee:

employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	commission_pct	manager_id	department_id
EMP001	Tasnim	Rahman	tasnim.rahman@google.com	01798154562	2020-07-18	JOB001	30000	0.500	MNG01	DPT001
EMP002	Amrin	Rasheed	amrin.rasheed@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	Maliha	Jannat	maliha.jannat@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	Anisur	Rahman	anisur.rahman@gmail.com	999-888-7777	2023-01-05	JOB001	55000	0.300	MNG02	DPT007
EMP007	Jamila	Boeza	jamila.boeza@yahoo.com	777-777-7777	2021-09-12	JOB002	60000	0.900	MNG02	DPT003
EMP008	Dalia	Akter	dalia.akter@yahoo.com	333-444-5555	2020-08-25	JOB002	65000	0.200	MNG03	DPT001
EMP009	Sara	Ibrahim	sara.ibrahim@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	Ananda	Sarkar	ananda.sarkar@yahoo.com	444-555-6666	2023-03-08	JOB03	80000	0.700	MNG03	DPT003
EMP012	Juthi	Gomes	juthi.gomes@google.com	888-777-6666	2021-11-25	JOB04	85000	0.800	MNG03	DPT003
EMP013	Elina	Ahmed	elina.ahmed@google.com	123-456-7890	2020-06-30	JOB04	9000	0.900	MNG04	DPT002
EMP014	Krishna	Banerjee	krishna.banerjee@google.com	987-654-3210	2019-10-15	JOB04	95000	0.400	MNG04	DPT003
EMP015	Mithila	Khondokar	mithila.khondokar@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	Jasia	Shikder	jasia.shikder@google.com	777-777-7777	2021-08-18	JOB02	115000	0.800	MNG07	DPT005
EMP019	Lamim	Pervez	lamim.pervez@yahoo.com	333-444-5555	2020-09-29	JOB02	120000	0.500	MNG09	DPT007

19 rows in set (0.001 sec)

No 1 Query (as Plain Text)	<p><u>ANSWER TO THE Q. NO-01</u></p> <p>select first_name, last_name, email, phone_number, hire_date, department_id from Employee where hire_date=(select max(hire_date) from Employee);</p>
No 1 SS (of Query & Output in Shell)	<pre> MariaDB [Company_22301689]> 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 +-----+-----+-----+-----+-----+-----+ Ananda Sarkar ananda.sarkar@yahoo.com 444-555-6666 2023-03-08 DPT003 +-----+-----+-----+-----+-----+-----+ 1 row in set (0.001 sec) </pre>
No 2 Query (as Plain Text)	<p><u>ANSWER TO THE Q. NO-02</u></p> <p>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);</p>

No 2 SS
(of Query & Output
in Shell)

```
MariaDB [Company_22301689]> 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
Tasnim	Rahman	EMP001	01798154562	30000	DPT001
Jane	Smith	EMP003	987-654-3210	35000	DPT003
Ava	harris	EMP005	111-222-3333	50000	DPT007
Elina	Ahmed	EMP013	123-456-7890	9000	DPT002
Mithila	Khondokar	EMP015	555-555-5555	100000	DPT005

```
5 rows in set (0.002 sec)
```

No 3 Query
(as Plain Text)

ANSWER TO THE Q. NO-03

```
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');
```

No 3 SS
(of Query & Output
in Shell)

```
MariaDB [Company_22301689]> 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
Anisur	Rahman	EMP006	0.300	DPT007
Lamim	Pervez	EMP019	0.500	DPT007

```
2 rows in set (0.000 sec)
```

No 4 Query (as Plain Text)	<p><u>ANSWER TO THE Q. NO-04</u></p> <pre>SELECT department_id, COUNT(*) FROM Employee WHERE department_id NOT -> IN (SELECT department_id FROM Employee WHERE salary > 30000) GROUP BY -> department_id;</pre>
No 4 SS (of Query & Output in Shell)	<pre>MariaDB [Company_22301689]> 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 +-----+-----+ 1 row in set (0.001 sec)</pre>
No 5 Query (as Plain Text)	<pre>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);</pre>

No 5 SS
(of Query & Output
in Shell)

```
MariaDB [Company_22301689]> 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

```
14 rows in set (0.002 sec)
```

No 6 Query (as Plain Text)	SELECT DISTINCT manager_id FROM Employee WHERE manager_id NOT IN -> (SELECT DISTINCT manager_id FROM Employee WHERE salary < 3500);
No 6 SS (of Query & Output in Shell)	<pre> MariaDB [Company_22301689]> 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 +-----+ 8 rows in set (0.001 sec) </pre>
No 7 Query (as Plain Text)	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);

No 7 SS
(of Query & Output
in Shell)

```
MariaDB [Company_22301689]> 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
Anisur	Rahman	EMP006	anisur.rahman@gmail.com	55000	DPT007	0.300
Dalia	Akter	EMP008	dalia.akter@yahoo.com	65000	DPT001	0.200
Krishna	Banerjee	EMP014	krishna.banerjee@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
Jasia	Shikder	EMP018	jasia.shikder@google.com	115000	DPT005	0.800
Lamim	Pervez	EMP019	lamim.pervez@yahoo.com	120000	DPT007	0.500

```
8 rows in set (0.002 sec)
```