

# CSE370 : Database Systems

## Assignment 02 | Fall 2024

ID : <22301719> | Name : UMMAY MAIMONA CHAMAN

No 1 Query  
(as Plain Text)

SELECT first\_name, last\_name, email, phone\_number, hire\_date, department\_id FROM Employee WHERE hire\_date =  
(SELECT MAX(hire\_date) FROM Employee)

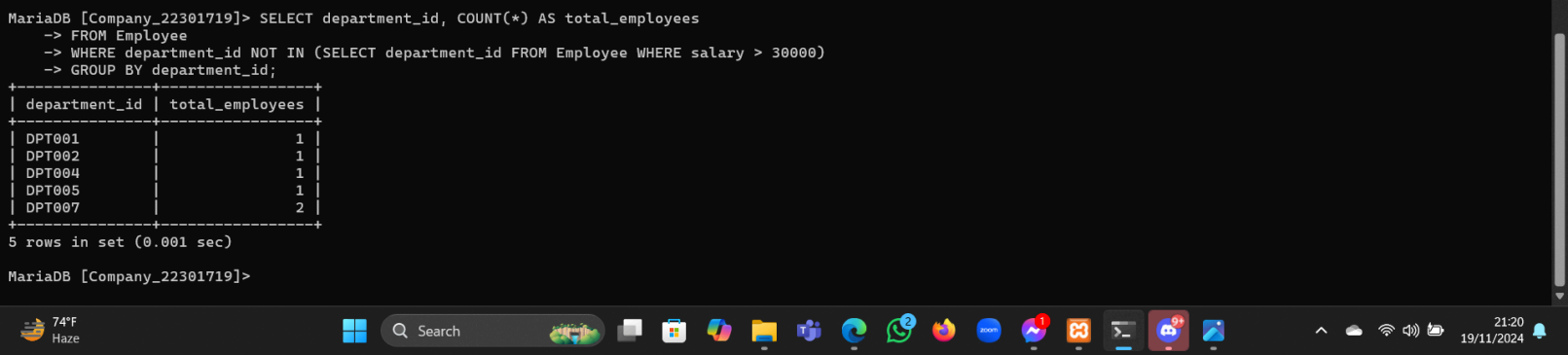
No 1 SS  
(of Query & Output  
in Shell)

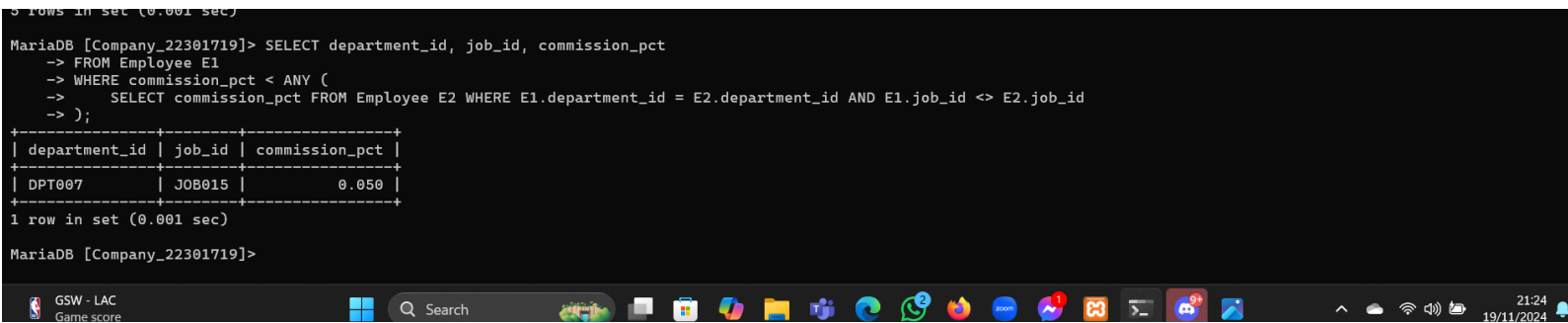
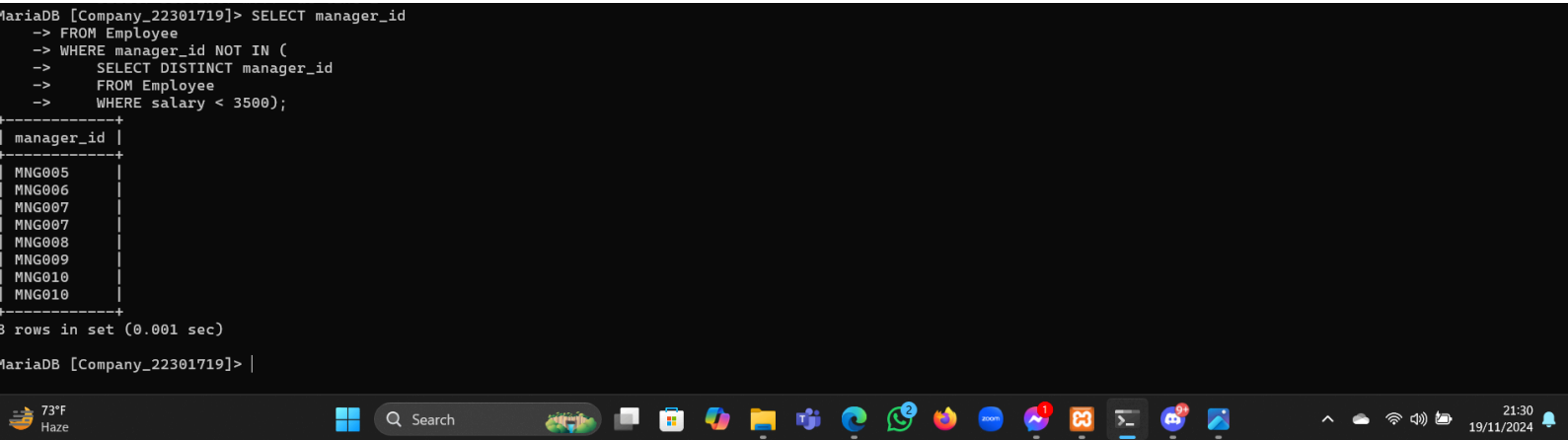
```
XAMPP for Windows - mysql
MariaDB [Company_22301719]> select*from Employee;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| employee_id | first_name | last_name | email | phone_number | hire_date | job_id | salary | commission_pct | manager_id | department_id |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| EMP009 | Chaman | Maimona | chaman.maimona@gmail.com | 01715003815 | 2024-07-01 | JOB009 | 28000 | 0.120 | MNG005 | DPT001 |
| EMP010 | Nazifa | Prova | nazifa.prova@gmail.com | 01345678902 | 2024-07-15 | JOB010 | 15000 | 0.180 | MNG006 | DPT002 |
| EMP011 | Taznia | Onon | taznia.onon@gmail.com | 01735469864 | 2024-08-01 | JOB011 | 32000 | 0.220 | MNG007 | DPT003 |
| EMP012 | Jubaiya | Niyasha | jubaiya.niyasha@gmail.com | 01265936480 | 2024-08-10 | JOB012 | 17000 | 0.140 | MNG007 | DPT004 |
| EMP013 | Rizve | Ahmed | rizve.ahmed@gmail.com | 01839275678 | 2024-08-20 | JOB013 | 5500 | 0.270 | MNG008 | DPT005 |
| EMP014 | Tuba | Tabassum | tuba.tabassum@gmail.com | 01928465947 | 2024-09-01 | JOB014 | 48000 | 0.300 | MNG009 | DPT006 |
| EMP015 | Naziat | Arshi | naziat.arshi@gmail.com | 01629466499 | 2024-09-10 | JOB015 | 24000 | 0.050 | MNG010 | DPT007 |
| EMP016 | Puja | Paul | puja.paul@gmail.com | 01928374698 | 2024-09-15 | JOB016 | 26000 | 0.110 | MNG010 | DPT007 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
8 rows in set (0.000 sec)

MariaDB [Company_22301719]> 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 |
+-----+-----+-----+-----+-----+-----+
| Puja | Paul | puja.paul@gmail.com | 01928374698 | 2024-09-15 | DPT007 |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.001 sec)

MariaDB [Company_22301719]>
```

No 2 Query (as Plain Text)	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 )																																																
No 2 SS (of Query & Output in Shell)	<pre>MariaDB [Company_22301719]&gt; SELECT first_name, last_name, employee_id, phone_number, salary, department_id -&gt; FROM Employee -&gt; WHERE (department_id, salary) IN ( -&gt;   SELECT department_id, MIN(salary) -&gt;   FROM Employee -&gt;   GROUP BY department_id -&gt; );</pre> <table><tr><th>first_name</th><th>last_name</th><th>employee_id</th><th>phone_number</th><th>salary</th><th>department_id</th></tr><tr><td>Chaman</td><td>Maimona</td><td>EMP009</td><td>01715003815</td><td>28000</td><td>DPT001</td></tr><tr><td>Nazifa</td><td>Prova</td><td>EMP010</td><td>01345678902</td><td>15000</td><td>DPT002</td></tr><tr><td>Taznia</td><td>Onon</td><td>EMP011</td><td>01735469864</td><td>32000</td><td>DPT003</td></tr><tr><td>Jubaiya</td><td>Niyasha</td><td>EMP012</td><td>01265936480</td><td>17000</td><td>DPT004</td></tr><tr><td>Rizve</td><td>Ahmed</td><td>EMP013</td><td>01839275678</td><td>5500</td><td>DPT005</td></tr><tr><td>Tuba</td><td>Tabassum</td><td>EMP014</td><td>01928465947</td><td>48000</td><td>DPT006</td></tr><tr><td>Naziat</td><td>Arshi</td><td>EMP015</td><td>01629466499</td><td>24000</td><td>DPT007</td></tr></table> <pre>7 rows in set (0.001 sec)</pre>	first_name	last_name	employee_id	phone_number	salary	department_id	Chaman	Maimona	EMP009	01715003815	28000	DPT001	Nazifa	Prova	EMP010	01345678902	15000	DPT002	Taznia	Onon	EMP011	01735469864	32000	DPT003	Jubaiya	Niyasha	EMP012	01265936480	17000	DPT004	Rizve	Ahmed	EMP013	01839275678	5500	DPT005	Tuba	Tabassum	EMP014	01928465947	48000	DPT006	Naziat	Arshi	EMP015	01629466499	24000	DPT007
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No 3 Query (as Plain Text)	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' );																																																
No 3 SS (of Query & Output in Shell)	<pre>MariaDB [Company_22301719]&gt; SELECT first_name, last_name, employee_id, commission_pct, department_id -&gt; FROM Employee -&gt; WHERE department_id = 'DPT007' -&gt;   AND commission_pct &lt; ALL ( -&gt;     SELECT commission_pct -&gt;     FROM Employee -&gt;     WHERE department_id = 'DPT005' -&gt;   );</pre> <table><tr><th>first_name</th><th>last_name</th><th>employee_id</th><th>commission_pct</th><th>department_id</th></tr><tr><td>Naziat</td><td>Arshi</td><td>EMP015</td><td>0.050</td><td>DPT007</td></tr><tr><td>Puja</td><td>Paul</td><td>EMP016</td><td>0.110</td><td>DPT007</td></tr></table> <pre>2 rows in set (0.001 sec)</pre>	first_name	last_name	employee_id	commission_pct	department_id	Naziat	Arshi	EMP015	0.050	DPT007	Puja	Paul	EMP016	0.110	DPT007																																	
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Puja	Paul	EMP016	0.110	DPT007																																													

<b>No 4 Query</b> <b>(as Plain Text)</b>	SELECT department_id, COUNT(*) AS total_employees FROM Employee WHERE department_id NOT IN (SELECT department_id FROM Employee WHERE salary > 30000) GROUP BY department_id;												
<b>No 4 SS</b> <b>(of Query &amp; Output</b> <b>in Shell)</b>	 <p>The screenshot shows a MariaDB shell window with the following content:</p> <pre>MariaDB [Company_22301719]&gt; SELECT department_id, COUNT(*) AS total_employees -&gt; FROM Employee -&gt; WHERE department_id NOT IN (SELECT department_id FROM Employee WHERE salary &gt; 30000) -&gt; GROUP BY department_id;</pre> <table border="1"> <thead> <tr> <th>department_id</th> <th>total_employees</th> </tr> </thead> <tbody> <tr> <td>DPT001</td> <td>1</td> </tr> <tr> <td>DPT002</td> <td>1</td> </tr> <tr> <td>DPT004</td> <td>1</td> </tr> <tr> <td>DPT005</td> <td>1</td> </tr> <tr> <td>DPT007</td> <td>2</td> </tr> </tbody> </table> <p>5 rows in set (0.001 sec)</p> <p>MariaDB [Company_22301719]&gt;</p> <p>The bottom of the screenshot shows a Windows taskbar with various application icons and a system tray indicating a temperature of 74°F, weather of Haze, and a date/time of 21:20 on 19/11/2024.</p>	department_id	total_employees	DPT001	1	DPT002	1	DPT004	1	DPT005	1	DPT007	2
department_id	total_employees												
DPT001	1												
DPT002	1												
DPT004	1												
DPT005	1												
DPT007	2												
<b>No 5 Query</b> <b>(as Plain Text)</b>	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 E1.job_id <> E2.job_id);												

<p><b>No 5 SS</b> <b>(of Query &amp; Output in Shell)</b></p>	 <pre> 5 rows in set (0.001 sec)  MariaDB [Company_22301719]&gt; SELECT department_id, job_id, commission_pct -&gt; FROM Employee E1 -&gt; WHERE commission_pct &lt; ANY ( -&gt;   SELECT commission_pct FROM Employee E2 WHERE E1.department_id = E2.department_id AND E1.job_id &lt;&gt; E2.job_id -&gt; ); +-----+-----+-----+   department_id   job_id   commission_pct   +-----+-----+-----+   DPT007         JOB015   0.050           +-----+-----+-----+ 1 row in set (0.001 sec)  MariaDB [Company_22301719]&gt; </pre>
<p><b>No 6 Query</b> <b>(as Plain Text)</b></p>	<p>SELECT manager_id FROM Employee WHERE manager_id NOT IN (SELECT DISTINCT manager_id FROM Employee WHERE salary &lt; 3500);</p>
<p><b>No 6 SS</b> <b>(of Query &amp; Output in Shell)</b></p>	 <pre> MariaDB [Company_22301719]&gt; SELECT manager_id -&gt; FROM Employee -&gt; WHERE manager_id NOT IN ( -&gt;   SELECT DISTINCT manager_id -&gt;   FROM Employee -&gt;   WHERE salary &lt; 3500); +-----+   manager_id   +-----+   MNG005         MNG006         MNG007         MNG007         MNG008         MNG009         MNG010         MNG010       +-----+ 8 rows in set (0.001 sec)  MariaDB [Company_22301719]&gt;   </pre>
<p><b>No 7 Query</b> <b>(as Plain Text)</b></p>	<p>SELECT first_name, last_name, employee_id, email, salary, department_id, commission_pct FROM Employee E1 WHERE commission_pct = (SELECT MIN(commission_pct) FROM Employee E2 WHERE E1.manager_id = E2.manager_id) ORDER BY manager_id;</p>

No 7 SS  
(of Query & Output  
in Shell)

```
MariaDB [Company_22301719]> SELECT first_name, last_name, employee_id, email, salary, department_id, commission_pct
-> FROM Employee E1
-> WHERE commission_pct = (
->   SELECT MIN(commission_pct)
->   FROM Employee E2
->   WHERE E1.manager_id = E2.manager_id) ORDER BY manager_id;
```

first_name	last_name	employee_id	email	salary	department_id	commission_pct
Chaman	Maimona	EMP009	chaman.maimona@gmail.com	28000	DPT001	0.120
Nazifa	Prova	EMP010	nazifa.prova@gmail.com	15000	DPT002	0.180
Jubaiya	Niyasha	EMP012	jubaiya.niyasha@gmail.com	17000	DPT004	0.140
Rizve	Ahmed	EMP013	rizve.ahmed@gmail.com	5500	DPT005	0.270
Tuba	Tabassum	EMP014	tuba.tabassum@gmail.com	48000	DPT006	0.300
Naziat	Arshi	EMP015	naziat.arshi@gmail.com	24000	DPT007	0.050

6 rows in set (0.001 sec)

```
MariaDB [Company_22301719]>
```