CSE370 : Database Systems | Summer 2024 Lab Assignment : 02 | Lab Section : 08 ID : 22101698 | Name : Jannatul Somiya Mahmud

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)

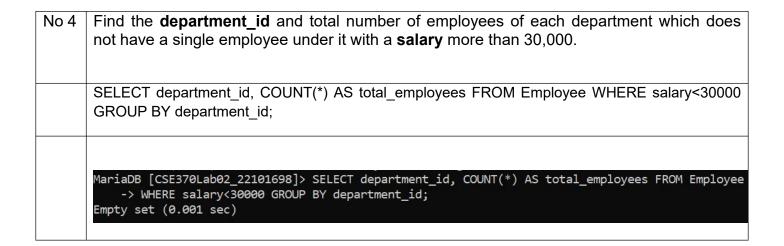
No Create Table and Insert data 0 **INSERT INTO Employee values** ('EMP001', 'Obayed', 'Haque', 'abc@gmail.com', '018164', '2024-03-04', 'JOB001', 95000, 0.150, 'MNG001', 'DPT001'), ('EMP002', 'Shuhan', 'Rizwan', 'def@gmail.com', '017126', '2024-01-01', 'JOB002', 90000, 0.250, 'MNG002', 'DPT002'), ('EMP003', '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', '2024-03-10', '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', 'JOB009',50000, 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', '0199521', '2024-01-10', 'JOB010',55000, 0.951, 'MNG001', 'DPT007'), -> ('EMP011', 'Neamat', 'Iman', 'ydj@gmail.com', '01913165', '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) lariaDB [CSE370Lab02_22101698]> INSERT INTO Employee values ecords: 13 Duplicates: 0 Warnings: 0

EMP001	EMP002 Shuhan Rizwan def@gmail.com 017126 2024-01-01 J08002 90000 0.250 MNG002 DPT002	EMP002 Shuhan Rizwan def@gmail.com 017126 2024-01-01 J08002 90000 0.250 MNG002 DPT002	employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	commission_pct	manager_id	departmen
EMP003 Nabil Muhtasim ghi@gmail.com 017644 2024-01-15 JOB003 85000 0.350 MNG003 DPT003 EMP004 Washi	EMP003 Nabil Muhtasim ghi@gmail.com 017644 2024-01-15 J08003 85000 0.350 MNG003 DPT003 EMP004 Washi Ahmed jkl@gmail.com 016270 2024-02-15 J08004 80000 0.450 MNG004 DPT004 EMP005 Ahmed Ishtiaque mno@gmail.com 018930 2024-03-10 J08005 75000 0.550 MNG005 DPT005 EMP006 Sadat Hossain pqr@gmail.com 013099 2024-02-15 J08006 70000 0.650 MNG005 DPT006 EMP007 Asif Mahdi stu@gmail.com 016807 2024-03-26 J08007 65000 0.750 MNG002 DPT007 EMP008 Jobaed Ahsan vwx@gmail.com 017157 2024-03-26 J08008 60000 0.850 MNG003 DPT007 EMP009 Shahidul Zahir xyx@gmail.com 019952 2024-01-22 J08009 50000 0.950 MNG004 DPT006 EMP010 Rasid Haider axb@gmail.com 019521 2024-01-10 J08010 55000 0.251 MNG005 DPT005 EMP011 Neamat Iman ydj@gmail.com 01934 2024-02-14 J08011 45000 0.551 MNG001 DPT007 EMP012 Imdadul Haq kud@gmail.com 019534 2024-02-10 J08012 40000 0.651 MNG003 DPT005 EMP013 Mashfiq Enam brb@gmail.com 015343 2024-01-14 J08013 35000 0.951 MNG003 DPT005 EMP013 Mashfiq Enam brb@gmail.com 015343 2024-01-14 J08013 35000 0.951 MNG003 DPT005 EMP014 Mashfiq Enam brb@gmail.com 015343 2024-01-14 J08013 35000 0.951 MNG003 DPT005 EMP015 EMP016 EMP017 EMP018 EMP018 EMP018 EMP019 EMP0	EMP003 Nabil Muhtasim ghi@gmail.com 017644 2024-01-15 JOB003 85000 0.350 MNG003 DPT003 EMP004 Washi	+ EMP001	Obayed	Haque	abc@gmail.com	018164	2024-03-04	JOB001	95000	0.150	MNG001	 DPT001
EMP004 Washi	EMP004 Washi	EMP004 Washi	EMP002	Shuhan	Rizwan	def@gmail.com	017126	2024-01-01	J0B002	90000	0.250	MNG002	DPT002
EMP005	EMP005	EMP005	EMP003	Nabil	Muhtasim	ghi@gmail.com		2024-01-15	J0B003	85000	0.350	MNG003	DPT003
EMP006 Sadat	EMP006 Sadat	EMP006 Sadat	EMP004	Washi	Ahmed	jkl@gmail.com	016270	2024-02-15	J0B004	80000	0.450	MNG004	DPT004
EMP007	EMP007	EMP007	EMP005	Ahmed	Ishtiaque			2024-03-10	J0B005	75000	0.550	MNG005	DPT005
EMP008 Jobaed Ahsan	EMP008 Jobaed Ahsan	EMP008 Jobaed Ahsan											
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	EMP009 Shahidul Zahir xyz@gmail.com 019992 2024-01-22 J08009 50000 0.950 MNG004 DPT006 EMP010 Rasid Haider axb@gmail.com 019521 2024-01-10 J08010 55000 0.251 MNG005 DPT005 EMP011 Neamat Iman ydj@gmail.com 013165 2024-02-14 J08011 45000 0.551 MNG001 DPT007 EMP012 Imdadul Haq kud@gmail.com 019534 2024-02-10 J08012 40000 0.651 MNG002 DPT005 EMP013 Mashfiq Enam brb@gmail.com 015343 2024-01-14 J08013 35000 0.951 MNG003 DPT001 EMP014 DPT001 DPT00	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						2024-03-26	J0B007				
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EMP012	EMP012	EMP012											
EMP013 Mashfiq Enam brb@gmail.com 015343 2024-01-14 JOB013 35000 0.951 MNG003 DPT001	EMP013 Mashfiq Enam brb@gmail.com 015343 2024-01-14 JOB013 35000 0.951 MNG003 DPT001	EMP013 Mashfiq Enam brb@gmail.com 015343 2024-01-14 JOB013 35000 0.951 MNG003 DPT001											
iiiiiiiii	iiiiiiiii	iiiiiiiii			Haq			2024-02-10		40000			DPT005
+++++++++	t	tows in set (0.001 sec)	EMP013	Mashfiq	Enam	brb@gmail.com	015343	2024-01-14	JOB013	35000	0.951	MNG003	DPT001
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			13 rows in set	(0.001 sec)						+		*	
			13 rows in set	(0.001 sec)									

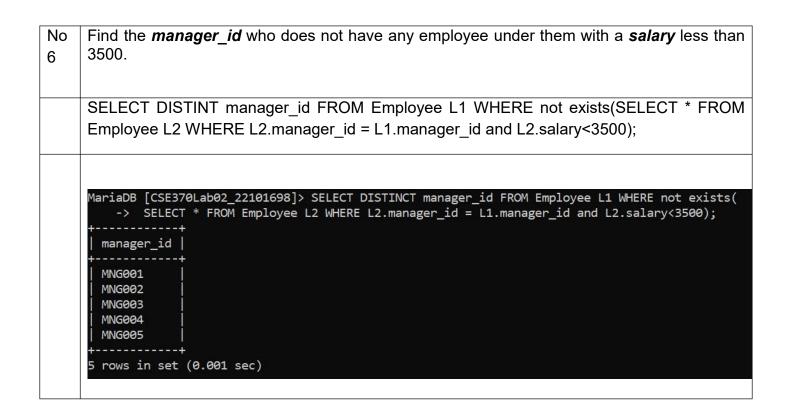
No 1		_	name, last f all the emplo	_		ne_number, re_date.	hire_date	and
	SELECT fire	st_name, la	st_name, ema	il, phone_nur	nber, hire_d	ate, department	i_id	
	-> FROM	Employee	WHERE hire_	_date=(SELE0	CT MAX(hire	e_date) FROM E	Employee);	
			hire_date=(SEL		te) FROM Empl	phone_number, hire	e_date, départme	nt_id
	first_name	last_name	email	phone_number	hire_date	department_id		
	Asif Jobaed	Mahdi Ahsan	stu@gmail.com vwx@gmail.com		2024-03-26 2024-03-26	DPT007		
	2 rows in set	(0.002 sec)		+	+	++		

SELECT first_name, last_name, employee_id, phone_number, salary, department_id Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 L2.department_id=L1.department_id); MariaDB [CSE370Lab02_22101698]> SELECT first_name, last_name, employee_id, phone_number, salary, department> FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.depart first_name last_name employee_id phone_number salary department_id Shuhan Rivan 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 DPT007 Mashfiq Enam EMP013 015343 35000 DPT001 7 rows in set (0.001 sec)	y an	-	one_number, n each departm				-	_		No 2
Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 L2.department_id=L1.department_id); MariaDB [CSE370Lab02_22101698]> SELECT first_name, last_name, employee_id, phone_number, salary, department										
Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 L2.department_id=L1.department_id); MariaDB [CSE370Lab02_22101698] > SELECT first_name, last_name, employee_id, phone_number, salary, department> FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.depart	FROI	tment id	salary, departm	ne number,	id, pho	employee	last name,	rst name,	SELECT fi	
MariaDB [CSE370Lab02_22101698]> SELECT first_name, last_name, employee_id, phone_number, salary, department -> FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.depart 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 DPT001 Mashfiq Enam EMP013 015343 35000 DPT001	WHER	_	•	_				_		
MariaDB [CSE370Lab02_22101698]> SELECT first_name, last_name, employee_id, phone_number, salary, departmen -> FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.depart first_name	V V I I L I X	LZ	vi Employee	balary) Trico	101114(3	• (
-> FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.depart						ld);	_epartment	ent_id=L1.c	L2.departme	
-> FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.depart										
-> FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.depart										
-> FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.depart										
-> FROM Employee L1 WHERE salary=(SELECT MIN(salary) FROM Employee L2 WHERE L2.department_id=L1.depart										
first_name last_name employee_id phone_number salary department_id Shuhan	t_id	department	_number, salary, d	mployee_id, phone	t_name, em	irst_name, las	1698]> SELECT +	70Lab02_2210:	MariaDB [CSE3	
first_name last_name employee_id phone_number salary department_id	ment_id)	=L1.departm						mployee L1 WI	-> FROM E	
Nabil Muhtasim EMP003 017644 85000 DPT003 Washi Ahmed EMP004 016270 80000 DPT004								last_name	first_name	
Nabil Muhtasim EMP003 017644 85000 DPT003 Washi Ahmed EMP004 016270 80000 DPT004				 DPT002	 90000	017126	EMP002	Rizwan	Shuhan	
Shahidul Zahir EMP009 019992 50000 DPT006 Neamat Iman EMP011 013165 45000 DPT007 Imdadul Haq EMP012 019534 40000 DPT005 Mashfiq Enam EMP013 015343 35000 DPT001										
Neamat Iman				DPT004	80000	016270	EMP004	Ahmed	Washi	
Imdadul				DPT006	50000	019992	EMP009	Zahir	Shahidul	
Mashfiq										
·i				DPT005				:		
7 rows in set (0.001 sec)					25000	015343	FMP013	Enam	Mashfiq	
7 rows in sec (0.001 sec)				DPT001	33000	010343	2 023			
				DPT001 +	33000 			(0.001)	+	

No 3	Find the <i>first_name</i> , <i>last_name</i> , <i>employee_id</i> , <i>commission_pct</i> and <i>department_id</i> 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');
	<pre>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)</pre>



job_id, commission_pct FROM Employee L1 WHERE commission_pct < n_pct FROM Employee L2 WHERE L2.department_id = L1.department_id i);
SELECT department_id, job_id, commission_pct FROM Employee L1 WHERE commission_pct < ANY(OM Employee L2 WHERE L2.department_id = L1.department_id and L2.job_id != L1.job_id);
ission_pct
0.150
0.550
9.650
ø.750
0.354
0.251



SELECT first_name, last_name, employee_id, salary, department_id, commission_rFROM Employee L1 WHERE commission_pct=(SELECT MIN(commission_pct) FROE Employee L2 WHERE L2.manager_id=L1.manager_id); MariaDB [CSE370Lab02_22101698]> SELECT first_name, last_name, employee_id, salary, department_id, commission_pct	No 7		_	_	- '			salary, dej on_pct under	_	
-> FROM Employee L1 WHERE commission_pct=(SELÉCT MIN(commission_pct) FROM Employee L2 WHERE L2.manager_id=L1.manag		FROM Er	mployee	L1 WHEI	RE co	mmission_p	ct=(SELECT	· -		<u> </u>
Obayed										
5 rows in set (0.001 sec)		-> FROM E	mployee L1 WH ++	HERE commission	n_pct=(SEI +	LECT MIN(commiss	ion_pct) FROM Emp	, department_id, co Loyee L2 WHERE L2.m	ommission_pct nanager_id=L1.mar	nager_id);