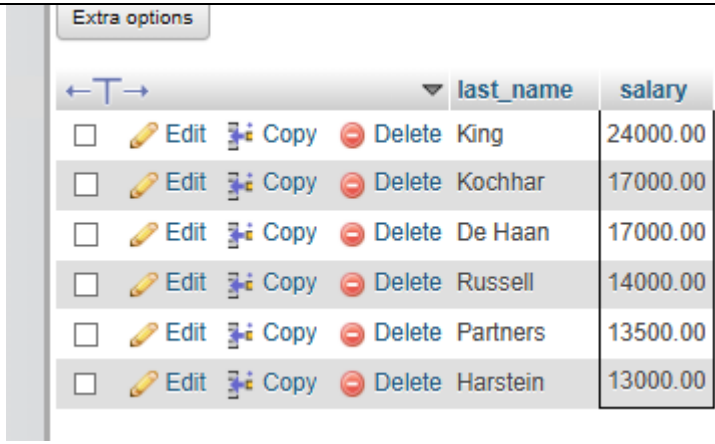


Course	: BIT 21404 Database
Session	: II 2024/2025
Lab task	: 4
Name	: MUHAMMAD LUQMAN BIN BAHRIN
Matric No	: AI230278

Lab 4 Assignment

** Please refer to the notes on Lab 4 for the respective solution.

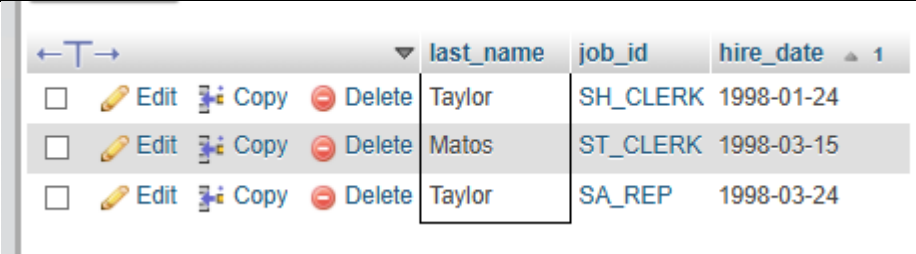
- The HR department needs a report that displays the last name and salary of employees who earn more than \$12,000.

Solution:	Display the last name and salary of employees who earn more than \$12000														
SQL statement	SELECT last_name , salary FROM employees WHERE salary > 12000;														
Output display	 <p>The screenshot shows a table with two columns: last_name and salary. The data is as follows:</p> <table border="1"> <thead> <tr> <th>last_name</th> <th>salary</th> </tr> </thead> <tbody> <tr> <td>King</td> <td>24000.00</td> </tr> <tr> <td>Kochhar</td> <td>17000.00</td> </tr> <tr> <td>De Haan</td> <td>17000.00</td> </tr> <tr> <td>Russell</td> <td>14000.00</td> </tr> <tr> <td>Partners</td> <td>13500.00</td> </tr> <tr> <td>Harstein</td> <td>13000.00</td> </tr> </tbody> </table>	last_name	salary	King	24000.00	Kochhar	17000.00	De Haan	17000.00	Russell	14000.00	Partners	13500.00	Harstein	13000.00
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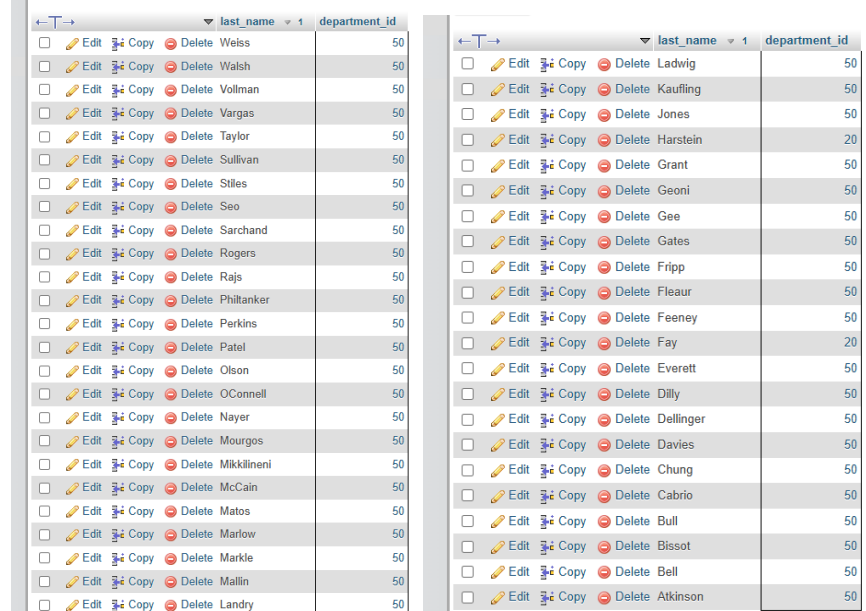
2. The HR department needs to find high-salary and low-salary employees. Modify solution for question (1) to display the last name and salary for any employee whose salary is not in the range of \$5,000 to \$12,000.

Solution:	-DISPLAY the employees salary not between range 5000 to 12000																																																																														
SQL statement	SELECT last_name, salary FROM employees WHERE salary NOT BETWEEN 5000 AND 12000;																																																																														
Output display	<table><thead><tr><th></th><th>last_name</th><th>salary</th></tr></thead><tbody><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>King</td><td>24000.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Kochhar</td><td>17000.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>De Haan</td><td>17000.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Austin</td><td>4800.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Pataballa</td><td>4800.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Lorentz</td><td>4200.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Khoo</td><td>3100.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Baida</td><td>2900.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Tobias</td><td>2800.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Himuro</td><td>2600.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Colmenares</td><td>2500.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Nayer</td><td>3200.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Mikkilineni</td><td>2700.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Landry</td><td>2400.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Markle</td><td>2200.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Bissot</td><td>3300.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Atkinson</td><td>2800.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Marlow</td><td>2500.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Olson</td><td>2100.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Mallin</td><td>3300.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Rogers</td><td>2900.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Gee</td><td>2400.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Philtanker</td><td>2200.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Ladwig</td><td>3600.00</td></tr><tr><td><input type="checkbox"/> Edit Copy Delete</td><td>Stiles</td><td>3200.00</td></tr></tbody></table>		last_name	salary	<input type="checkbox"/> Edit Copy Delete	King	24000.00	<input type="checkbox"/> Edit Copy Delete	Kochhar	17000.00	<input type="checkbox"/> Edit Copy Delete	De Haan	17000.00	<input type="checkbox"/> Edit Copy Delete	Austin	4800.00	<input type="checkbox"/> Edit Copy Delete	Pataballa	4800.00	<input type="checkbox"/> Edit Copy Delete	Lorentz	4200.00	<input type="checkbox"/> Edit Copy Delete	Khoo	3100.00	<input type="checkbox"/> Edit Copy Delete	Baida	2900.00	<input type="checkbox"/> Edit Copy Delete	Tobias	2800.00	<input type="checkbox"/> Edit Copy Delete	Himuro	2600.00	<input type="checkbox"/> Edit Copy Delete	Colmenares	2500.00	<input type="checkbox"/> Edit Copy Delete	Nayer	3200.00	<input type="checkbox"/> Edit Copy Delete	Mikkilineni	2700.00	<input type="checkbox"/> Edit Copy Delete	Landry	2400.00	<input type="checkbox"/> Edit Copy Delete	Markle	2200.00	<input type="checkbox"/> Edit Copy Delete	Bissot	3300.00	<input type="checkbox"/> Edit Copy Delete	Atkinson	2800.00	<input type="checkbox"/> Edit Copy Delete	Marlow	2500.00	<input type="checkbox"/> Edit Copy Delete	Olson	2100.00	<input type="checkbox"/> Edit Copy Delete	Mallin	3300.00	<input type="checkbox"/> Edit Copy Delete	Rogers	2900.00	<input type="checkbox"/> Edit Copy Delete	Gee	2400.00	<input type="checkbox"/> Edit Copy Delete	Philtanker	2200.00	<input type="checkbox"/> Edit Copy Delete	Ladwig	3600.00	<input type="checkbox"/> Edit Copy Delete	Stiles	3200.00
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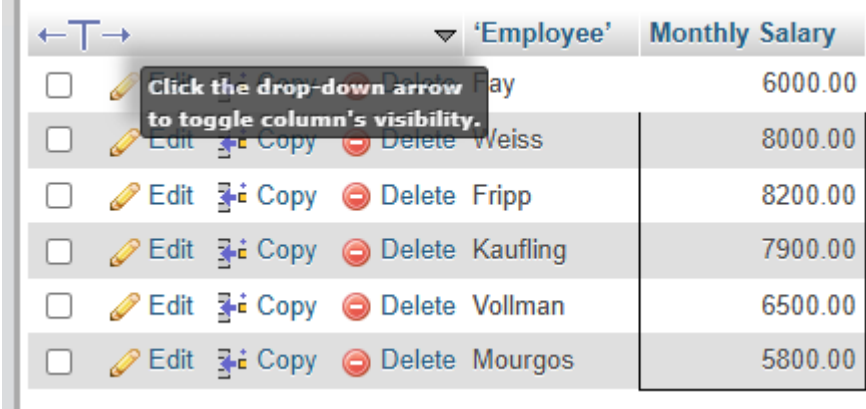
3. Create a report to display the last name, job ID, and hire date for employees with the last names of Matos and Taylor. Order the query in ascending order by the hire date.

Solution:	-Display last_name , job_id hire date -who the employees with the last name of Matos and Taylor -hire date asc order
SQL statement	SELECT last_name , job_id , hire_date FROM employees WHERE last_name IN ('Matos' , 'Taylor') ORDER BY hire_date ASC;
Output display	

4. Display the last name and department ID of all employees in departments 20 or 50 in descending alphabetical order by name.

Solution:	-Display last name department id , -all employees in departments 20 or 50 -descending order by name
SQL statement	SELECT last_name , department_id FROM employees WHERE department_id IN (20,50) ORDER BY last_name DESC;
Output display	

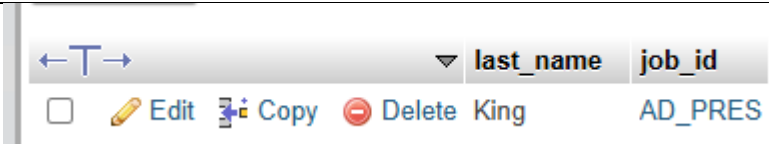
5. Modify solution for question (3) to display the last name and salary on employees who earn between \$5,000 and \$12,000, and are in department 20 or 50. Label the columns Employee and Monthly Salary, respectively.

Solution:	-earn between 5000 and 12000 -are in department 20 and 50 -label the column as employee and monthly salary														
SQL statement	SELECT last_name AS 'Employee', salary AS 'Monthly Salary' From employees WHERE salary BETWEEN 5000 AND 12000 AND department_id IN (20,50);														
Output display	 <table border="1"> <thead> <tr> <th>Employee</th> <th>Monthly Salary</th> </tr> </thead> <tbody> <tr> <td>Pay</td> <td>6000.00</td> </tr> <tr> <td>Weiss</td> <td>8000.00</td> </tr> <tr> <td>Fripp</td> <td>8200.00</td> </tr> <tr> <td>Kaufling</td> <td>7900.00</td> </tr> <tr> <td>Vollman</td> <td>6500.00</td> </tr> <tr> <td>Mourgos</td> <td>5800.00</td> </tr> </tbody> </table>	Employee	Monthly Salary	Pay	6000.00	Weiss	8000.00	Fripp	8200.00	Kaufling	7900.00	Vollman	6500.00	Mourgos	5800.00
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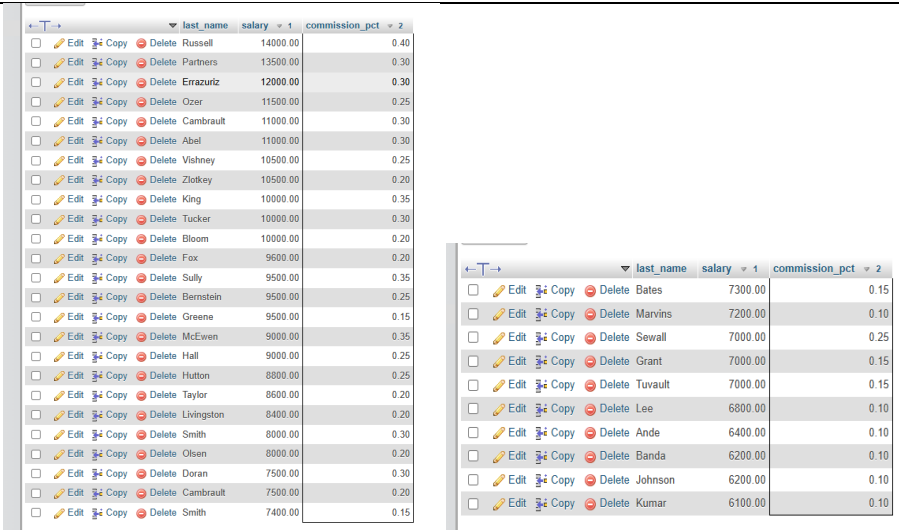
6. The HR department needs a report that displays the last name and hires date for all employees who were hired in 1994.

Solution:	-LAST NAME -EMPLOYEES WHO WERE HIRED IN 1994																
SQL statement	SELECT last_name,hire_date FROM employees WHERE YEAR(hire_date) = 1994;																
Output display	 <table border="1"> <thead> <tr> <th>last_name</th> <th>hire_date</th> </tr> </thead> <tbody> <tr> <td>Greenberg</td> <td>1994-08-17</td> </tr> <tr> <td>Faviet</td> <td>1994-08-16</td> </tr> <tr> <td>Raphaely</td> <td>1994-12-07</td> </tr> <tr> <td>Mavris</td> <td>1994-06-07</td> </tr> <tr> <td>Baer</td> <td>1994-06-07</td> </tr> <tr> <td>Higgins</td> <td>1994-06-07</td> </tr> <tr> <td>Gietz</td> <td>1994-06-07</td> </tr> </tbody> </table>	last_name	hire_date	Greenberg	1994-08-17	Faviet	1994-08-16	Raphaely	1994-12-07	Mavris	1994-06-07	Baer	1994-06-07	Higgins	1994-06-07	Gietz	1994-06-07
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Gietz	1994-06-07																

7. Create a report to display the last name and job title of all employees who do not have a manager.

Solution:	-MANAGER IS NULL
SQL statement	SELECT last_name , job_id FROM employees WHERE manager_id IS NULL;
Output display	

8. Create a report to display the last name, salary, and commission of all employees who earn commission. Sort data in descending order of salary and commissions. Use the column's numeric position in the ORDER BY clause.

Solution:	-EMPLOYEES WHO EARN COMMISSION -SORT SALARY AND COMMISSION IN DESC
SQL statement	SELECT last_name , salary , commission_pct FROM employees WHERE commission_pct IS NOT NULL ORDER BY salary DESC , commission_pct DESC;
Output display	

9. Display the last names of all employees who have both an “a” and an “e” in their last name.

Solution:	-who have both a and e in their last name																																																																																																																																																																					
SQL statement	SELECT last_name FROM employees WHERE last_name LIKE '%a%' AND last_name LIKE '%e%';																																																																																																																																																																					
Output display	<table><thead><tr><th colspan="4"></th><th>last_name</th></tr></thead><tbody><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>De Haan</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Faviet</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Raphaely</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Colmenares</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Nayer</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Markle</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Philtanker</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Patel</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Davies</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Partners</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Errazuriz</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Sewall</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Ande</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Bates</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Abel</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Fleaur</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Gates</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Whalen</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Harstein</td></tr><tr><td><input type="checkbox"/></td><td></td><td>Edit</td><td></td><td>Copy</td><td></td><td>Delete</td><td>Baer</td></tr></tbody></table>					last_name	<input type="checkbox"/>		Edit		Copy		Delete	De Haan	<input type="checkbox"/>		Edit		Copy		Delete	Faviet	<input type="checkbox"/>		Edit		Copy		Delete	Raphaely	<input type="checkbox"/>		Edit		Copy		Delete	Colmenares	<input type="checkbox"/>		Edit		Copy		Delete	Nayer	<input type="checkbox"/>		Edit		Copy		Delete	Markle	<input type="checkbox"/>		Edit		Copy		Delete	Philtanker	<input type="checkbox"/>		Edit		Copy		Delete	Patel	<input type="checkbox"/>		Edit		Copy		Delete	Davies	<input type="checkbox"/>		Edit		Copy		Delete	Partners	<input type="checkbox"/>		Edit		Copy		Delete	Errazuriz	<input type="checkbox"/>		Edit		Copy		Delete	Sewall	<input type="checkbox"/>		Edit		Copy		Delete	Ande	<input type="checkbox"/>		Edit		Copy		Delete	Bates	<input type="checkbox"/>		Edit		Copy		Delete	Abel	<input type="checkbox"/>		Edit		Copy		Delete	Fleaur	<input type="checkbox"/>		Edit		Copy		Delete	Gates	<input type="checkbox"/>		Edit		Copy		Delete	Whalen	<input type="checkbox"/>		Edit		Copy		Delete	Harstein	<input type="checkbox"/>		Edit		Copy		Delete	Baer
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