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Lab 4

Activity 1

1. Display customer number, name of the customer, Contact First Name, Contact Last Name, and city information of customer number 202. (Customer table).

```
1 • use classicmodels;
2 • select customerNumber, customerName,
3     contactFirstName, contactLastName, city
4     from customers where customerNumber = 202;
```

	customerNumber	customerName	contactFirstName	contactLastName	city
▶	202	Canadian Gift Exchange Network	Yoshi	Tamuri	Vancouver
*	NULL	NULL	NULL	NULL	NULL

Activity 2

1) Display the customer number, Contact First Name, Contact Last Name, and phone number, of those customers who have zero credit limit (customer table)

```
1 • use classicmodels;
2 • select customerNumber, customerName,
3     contactFirstName, contactLastName, city
4     from customers where creditLimit = 0;
```

	customerNumber	customerName	contactFirstName	contactLastName	city
▶	125	Havel & Zbyszek Co	Zbyszek	Piestrzeniewicz	Warszawa
	168	American Souvenirs Inc	Keith	Franco	New Haven
	169	Porto Imports Co.	Isabel	de Castro	Lisboa
	206	Asian Shopping Network, Co	Brydey	Walker	Singapore
	223	Natürlich Autos	Horst	Kloss	Cunewalde
	237	ANG Resellers	Alejandra	Camino	Madrid
	247	Messner Shopping Network	Renate	Messner	Frankfurt
	273	Franken Gifts, Co	Peter	Franken	München

2) Display customer No, Contact First Contact Last Name, and phone number of those customers who have a credit limit greater than 20000 and less than 50000 (customer table).

```
1 • use classicmodels;
2 • select contactFirstName, contactLastName, phone
3     from customers
4     where creditLimit > 20000 and creditLimit < 50000;
```

	contactFirstName	contactLastName	phone
▶	Carine	Schmitt	40.32.2555
	Jerry	Tseng	6175555555
	Leslie	Taylor	6175558428
	Jean	Fresnière	(514) 555-8054
	William	Brown	2015559350
	Juri	Yoshido	6175559555
	Pascale	Cartrain	(071) 23 67 2555
	Dan	Lewis	2035554407

3) Display country name of postal code = n 5804 (customer table).

```
1 • use classicmodels;
2 • select country
3   from customers
4  where postalCode = 'n 5804';
```

	country
►	Norway

4) Display customer number, payment date, and amount of those customers who paid after 20 May 2003, and the amount paid is less than 20,000 (payment table).

```
1 • use classicmodels;
2 • select customerNumber, paymentDate, amount
3   from payments
4  where paymentDate > '2003-05-20' and amount < 20000;
```

	customerNumber	paymentDate	amount
►	103	2004-10-19	6066.78
	103	2003-06-05	14571.44
	103	2004-12-18	1676.14
	112	2004-12-17	14191.12
	114	2003-05-31	7565.08
	119	2004-11-14	19501.82
	121	2003-10-28	1491.38
	121	2004-11-04	17876.32

5) Display customer number, customer Name, contact First Name and Contact Last Name. Customer numbers should be in ascending order (customer table).

```
1 • use classicmodels;
2 • select customerNumber, customerName, contactFirstName, contactLastName
3   from customers
4  order by customerNumber asc;
```

	customerNumber	customerName	contactFirstName	contactLastName
►	103	Atelier graphique	Carine	Schmitt
	112	Signal Gift Stores	Jean	King
	114	Australian Collectors, Co.	Peter	Ferguson
	119	La Rochelle Gifts	Janine	Labrune
	121	Baane Mini Imports	Jonas	Bergulfsen
	124	Mini Gifts Distributors Ltd.	Susan	Nelson
	125	Havel & Zbyszek Co	Zbyszek	Piestrzeniewicz
	128	Blauer See Auto, Co.	Roland	Keitel

Activity 3

1) Display the first Name, Last Name and salary of employees having salary greater than 10000.

```
1 • use hr;
2 • select first_name, last_name, salary
3   from employees
4  where salary > 10000;
```

	first_name	last_name	salary
►	Steven	King	24000.00
	Neena	Kochhar	17000.00
	Lex	De Haan	17000.00
	Nancy	Greenberg	12000.00
	Den	Raphaely	11000.00
	John	Russell	14000.00
	Karen	Partners	13500.00
	Alberto	Errazuriz	12000.00

2) Display the first Name, Last Name and salary of employees having salary greater than 10000 and smaller than 110000.

```
1 • use hr;
2 • select first_name, last_name, salary
3   from employees
4  where salary > 10000 and salary < 110000;
```

	first_name	last_name	salary
►	Steven	King	24000.00
	Neena	Kochhar	17000.00
	Lex	De Haan	17000.00
	Nancy	Greenberg	12000.00
	Den	Raphaely	11000.00
	John	Russell	14000.00
	Karen	Partners	13500.00
	Alberto	Errazuriz	12000.00

3) Display the postal code, location and country where postal code is “YSW 9T2”.

```
1 • use hr;
2 • select postal_code, location_id, country_id
3   from locations
4  where postal_code = 'YSW 9T2';
```

	postal_code	location_id	country_id
►	YSW 9T2	1900	CA
*	NULL	NULL	NULL

4) Display the employee ID, First Name, Last Name of Employees whose first name is equal to or greater to 'King' and last name is smaller or equal to 'Lee'.

```
1 • use hr;
2 • select employee_id, first_name, last_name
3   from employees
4  where first_name >= 'King'
5    and last_name <= 'Lee';
```

	employee_id	first_name	last_name
►	100	Steven	King
	101	Neena	Kochhar
	102	Lex	De Haan
	108	Nancy	Greenberg
	116	Shelli	Baida
	122	Payam	Kaufling
	129	Laura	Bissot
	130	Mozhe	Atkinson

5) Display the employee name and hiring information whose hire date is after 8 March 2008.

```
1 • use hr;
2 • select first_name, hire_date
3   from employees
4  where hire_date > '2008-03-08';
```

	first_name	hire_date
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6) Display Employee's last name, manager id and hire date in an ascending order of manager id and hire date.

```
1 • use hr;
2 • select last_name, manager_id, hire_date
3   from employees
4  order by hire_date and manager_id asc;
```

	last_name	manager_id	hire_date
►	King	NULL	1987-06-17
	Kochhar	100	1989-09-21
	De Haan	100	1993-01-13
	Hunold	102	1990-01-03
	Ernst	103	1991-05-21
	Austin	103	1997-06-25
	Pataballa	103	1998-02-05
	Lorentz	103	1999-02-07

Post Lab

Display last_name, extension from employee database for extension is equal to 'x102'.

```
1 • use classicmodels;
2 • select lastName, extension
3   from employees
4  where extension = 'x102';
```

	lastName	extension
▶	Jones	x102
	Marsh	x102
	Kato	x102

Display customerName and creditLimit from customer database for customer whose creditlimit is in range 53100.00 to 84600.00.

```
1 • use classicmodels;
2 • select customerName, creditLimit
3   from customers
4  where creditLimit between 53100.00 and 84600.00;
```

	customerName	creditLimit
▶	Signal Gift Stores	71800.00
	Baane Mini Imports	81700.00
	Blauer See Auto, Co.	59700.00
	Mini Wheels Co.	64600.00
	Volvo Model Replicas, Co	53100.00
	Danish Wholesale Imports	83400.00
	Technics Stores Inc.	84600.00
	Daedalus Designs Imports	82900.00

Display last_name, employeeNumber for employees between number 1002 to 1143 and display last_name in ascending order.

```
1 • use classicmodels;
2 • select lastName, employeeNumber
3   from employees
4  where employeeNumber between 1002 and 1143
5  order by lastName asc;
```

	lastName	employeeNumber
▶	Bondur	1102
	Bow	1143
	Firrelli	1076
	Murphy	1002
	Patterson	1056
	Patterson	1088

Create a report to display the last_name and jobtitle of all employees who do not have a Sales Rep.

Create a report to display the customer_name, customerNumber, and creditlimit of all customers whose creditlimit is above 80,000. Sort data in descending order of customerNumber. Use ORDER BY clause.

```
1 • use classicmodels;
2 • select customerName, customerNumber, creditLimit
3   from customers
4  where creditLimit > 80000
5  order by customerNumber desc;
```

	customerName	customerNumber	creditLimit
*	NULL	NULL	NULL

Display the customer name and creditLimit for all customers whose creditlimit equal to 81700.00, 21000.00, or 227600.00.

```
1 • use classicmodels;
2 • select customerName, creditLimit
3   from customers
4  where creditLimit = 81700.00 or 21000.00 or 227600.00;
```

	customerName	creditLimit
▶	Atelier graphique	21000.00
	Signal Gift Stores	71800.00
	Australian Collectors, Co.	117300.00
	La Rochelle Gifts	118200.00
	Baane Mini Imports	81700.00
	Mini Gifts Distributors Ltd.	210500.00
	Havel & Zbyszek Co	0.00
	Blauer See Auto, Co.	59700.00

Display first_name, employeeNumber. Write query to display names of those employees whose numbers are 1002, 1216, 1337, 1401.

```
1 • use classicmodels;
2 • select firstName, employeeNumber
3   from employees
4  where employeeNumber in (1002, 1216, 1337, 1401);
```

	firstName	employeeNumber
▶	Diane	1002
	Steve	1216
	Loui	1337
	Pamela	1401
*	NULL	NULL

Use HR Database:

Create a report that displays the last name and department number for employee number 176.

```
1 • use hr;
2 • select last_name, department_id
3   from employees;
```

	last_name	department_id
►	King	90
	Kochhar	90
	De Haan	90
	Hunold	60
	Ernst	60
	Austin	60
	Pataballa	60
	Lorentz	60

The HR department needs to find high-salary and low-salary employees. Display the last name and salary for any employee whose salary is not in the range of \$5,000 to \$12,000.

```
1 • USE hr;
2 • SELECT last_name, salary
3   FROM employees
4  WHERE salary NOT BETWEEN 12000 AND 50000;
```

	last_name	salary
►	Hunold	9000.00
	Ernst	6000.00
	Austin	4800.00
	Pataballa	4800.00
	Lorentz	4200.00
	Faviet	9000.00
	Chen	8200.00

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.

```
USE hr;
SELECT last_name, job_id, hire_date
FROM employees
where last_name in ('Matos', 'Taylor');
order by hire_date asc;
```

	last_name	job_id	hire_date
►	Matos	ST_CLERK	1998-03-15
	Taylor	SA_REP	1998-03-24
	Taylor	SH_CLERK	1998-01-24

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

```
1 • USE hr;
2 • SELECT last_name, department_id
3   FROM employees
4  where department_id in (20,50)
5   order by last_name asc;
```

	last_name	department_id
▶	Atkinson	50
	Bell	50
	Bissot	50
	Bull	50
	Cabrio	50
	Chung	50
	Davies	50
	Dellinger	50

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

```
1 • use hr;
2 • SELECT last_name, job_id
3   FROM employees
4  WHERE manager_id IS NULL;
```

	last_name	job_id
▶	King	AD_PRES

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

```
• use hr;
• SELECT last_name, salary, commission_pct
  FROM employees
  order by salary and commission_pct desc;
```

	last_name	salary	commission_pct
▶	Russell	14000.00	0.40
	Partners	13500.00	0.30
	Errazuriz	12000.00	0.30
	Cambrault	11000.00	0.30
	Zlotkey	10500.00	0.20
	Tucker	10000.00	0.30
	Bernstein	9500.00	0.25
	Hall	9000.00	0.25

The HR department wants to run reports based on a manager. Create a query that prompts the user for a manager ID and generates the employee ID, last name, salary, and department for that manager's employees. The HR department wants the ability to sort the report on a selected column. You can test the data with the following values: manager_id=103, sorted by last_name, manager_id = 201, sorted by salary, manager_id = 124, sorted by employee_id.

Display the last name, job, and salary for all employees whose jobs are either those of a sales representative or of a stock clerk, and whose salaries are not equal to \$2,500, \$3,500, or \$7,000.

Critical Analysis

These tasks help develop essential SQL querying skills, which are crucial for database management and data retrieval. By performing these activities, we learn how to filter, sort, and extract specific information from large datasets efficiently. They enhance problem-solving abilities, improve logical thinking, and strengthen your understanding of database structures. These exercises are practical for real-world applications, such as generating reports and supporting decision-making in organizations.