# Department of Information Systems and Technologies

### 2025-2026 Fall Semester

## **CTIS259 Database Management Systems and Applications**

# Lab Guide 06

Instructor : Nimet Ceren SERİM Week: 5

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Date: 13-14.10.2025

**Aim of this lab session: 1.** Displaying Data from Multiple Tables

2. Practice 3-1: Restricting and Sorting Data

**ORACLE Server Configurations:** 

IP Address: 139.179.33.231

Port number: 1522

SID: orclctis

## PLEASE USE ORAxx accounts

# **Displaying Data from Multiple Tables**

**1.** Display the list of employees (last name, first name, salary) with their department information (department\_name).

Whalen	Jennifer	4400	Administration
Hartstein	Michael	13000	Marketing
Fay	Pat	6000	Marketing
Mourgos	Kevin	5800	Shipping
Vargas	Peter	2500	Shipping
Matos	Randall	2600	Shipping
Davies	Curtis	3100	Shipping
Rajs	Trenna	3500	Shipping
Lorentz	Diana	4200	IT
Ernst	Bruce	6000	IT
Hunold	Alexander	9000	IT
Abel	Ellen	11000	Sales
Zlotkey	Eleni	10500	Sales
Taylor	Jonathon	8600	Sales
De Haan	Lex	17000	Executive
King	Steven	24000	Executive
Kochhar	Neena	17000	Executive
Gietz	William	8300	Accounting
Higgins	Shelley	12000	Accounting

2. Display the list of employees (last name, first name, salary) who are working in 'Shipping' department.

Mourgos	Kevin	5800
Rajs	Trenna	3500
Davies	Curtis	3100
Matos	Randall	2600
Vargas	Peter	2500

3. Display the list of the departments (Department id, department name, location id) where located in 'Seattle' in ascendingly sorted by department name.

DEPARTMENT_ID		\$ LOCATION_ID
110	Accounting	1700
10	Administration	1700
190	Contracting	1700
90	Executive	1700

#### **Practices for Lesson 3**

#### **Lesson Overview**

In this practice, you build more reports, including statements that use the WHERE clause and the ORDER BY clause. You make the SQL statements more reusable and generic by including the ampersand substitution.

### **Practice 3-1: Restricting and Sorting Data**

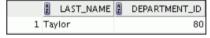
#### **Task**

The HR department needs your assistance in creating some queries.

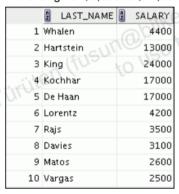
1. Because of budget issues, the HR department needs a report that displays the last name and salary of employees who earn more than \$12,000. Save your SQL statement as a file named lab\_03\_01.sql. Run your query.

	LAST_NAME	A	SALARY
1	Hartstein		13000
2	King		24000
3	Kochhar		17000
4	De Haan		17000

Open a new SQL Worksheet. Create a report that displays the last name and department deraferant-no number for employee number 176. Run the query.



The HR department needs to find high-salary and low-salary employees. Modify lab\_03\_01.sql to display the last name and salary for any employee whose salary is not in the range of \$5,000 to \$12,000. Save your SQL statement as lab\_03\_03.sql.



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.



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

	LAST_NAME	2 DEPARTMENT_ID
1	Davies	50
2	Fay	20
3	Hartstein	20
4	Matos	50
5	Mourgos	50
6	Rajs	50
7	Vargas	50

6. Modify lab\_03\_03.sql to display the last name and salary of employees who earn between \$5,000 and \$12,000, and are in department 20 or 50. Label the columns Employee and Monthly Salary, respectively. Save lab 03 03.sql as non-transferable lab\_03\_06.sql again. Run the statement in lab\_03\_06.sql.

	Employee 2	Monthly Salary
1	Fay	6000
2	Mourgos	5800

The HR department needs a report that displays the last name and hire date of all employees who were hired in 1994.



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



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

	LAST_NAME	2 SALARY	2 COMMISSION_PCT
1	Abel	11000	0.3
2	Zlotkey	10500	0.2
3	Taylor	8600	0.2
4	Grant	7000	0.15

10. Members of the HR department want to have more flexibility with the queries that you are writing. They would like a report that displays the last name and salary of employees who earn more than an amount that the user specifies after a prompt. Save this query to a file named lab 03 10.sql. If you enter 12000 when prompted, the report displays the following results:

	LAST_NAME	A	SALARY
1	Hartstein		13000
2	King		24000
3	Kochhar		17000
4	De Haan		17000

11. 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 of transferable report on a selected column. You can test the data with the following values: manager id = 103, sorted by last name:

	Ą	EMPLOYEE_ID	LAST_NAME	2 SALARY	DEPARTMENT_ID
1		104	Ernst	6000	60
2		107	Lorentz	4200	(60

manager id = 201 sorted by salary:

manag	~	_10 _201, 001		a by balary.		2-1/		. ~!!!
	A	EMPLOYEE_ID	A	LAST_NAME	A	SALARY 2		DEPARTMENT_ID
1		202	Fay	ingu	٠.٠	6000	31	20

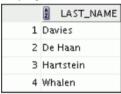
manager id = 124, sorted by employee id:

	EMPL	OYEE_ID	LAST_NAME	2 SALARY	DEPARTMENT_ID
1	SU /	141 Raj	S	3500	50
1105		142 Day	vies	3100	50
3		143 Ma	tos	2600	50
4		144 Var	rgas	2500	50

12. Display all employee last names in which the third letter of the name is "a."

	LAST_NAME
1	Grant
2	Whalen

13. Display the last names of all employees who have both an "a" and an "e" in their last name.



14. 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.

	LAST_NAME	∄ JOB_ID	2 SALARY
1	Abel	SA_REP	11000
2	Taylor	SA_REP	8600
3	Davies	ST_CLERK	3100
4	Matos	ST_CLERK	2600

15. Modify lab 03 06.sql to display the last name, salary, and commission for all employees whose commission is 20%. Save lab\_03\_06.sql as lab\_03\_15.sql again. Rerun the statement in lab\_03\_15.sql.

