	Practices for Lesson 3: Restricting and Sorting Data
	Chapter 3

Practices for Lesson 3: Overview

Practices Overview

This practice covers the following topics:

- Selecting data and changing the order of the rows that are displayed
- Restricting rows by using the WHERE clause
- Sorting rows by using the ORDER BY clause
- Using substitution variables to add flexibility to your SQL SELECT statements

Practice 3-1: Restricting and Sorting Data

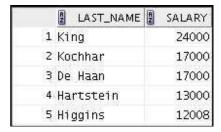
Overview

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

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.



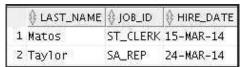
2. Open a new SQL Worksheet. Create a report that displays the last name and department number for employee number 176.



3. The HR department needs to find high-salaried and low-salaried employees. Modify lab_03_01.sql to display the last name and salary for any employee whose salary is not in the range \$5,000 through \$12,000. Save your SQL statement as lab 03 03.sql.



4. 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 hire date.



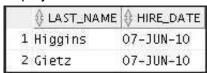
5. Display the last name and department ID of all employees in department 20 or department 50 in ascending alphabetical order by last name.

	LAST_NAME	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 department 50. Label the columns Employee and Monthly Salary, respectively. Save lab_03_03.sql as lab_03_06.sql. Run the statement in lab_03_06.sql.



7. The HR department needs a report that displays the last name and hire date of all employees who were hired in 2010.

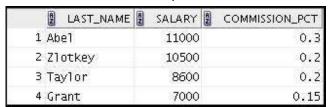


8. Create a report to display the last name and job title of all employees who do not have a manager.

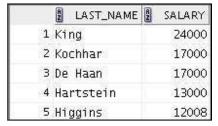


9. Create a report to display the last name, salary, and commission of all employees who earn commissions. Sort the data in descending order of salary and commissions.

Use the column's numeric position in the ORDER BY clause.



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. (You can use the query created in Task 1 and modify it.) If you enter 12000 when prompted, the report displays the following results:

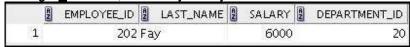


11. The HR department wants to run reports based on a manager. Create a query that prompts the user for a manager ID, and generates the employee ID, last name, salary, and department for that manager's employees. The HR department wants the ability to sort the report on a selected column. You can test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

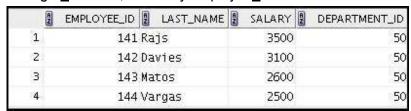
manager_id = 103, sorted by last_name:



manager_id = 201, sorted by salary:

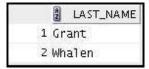


manager id = 124, sorted by employee id:

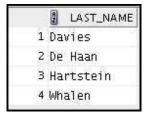


If you have time, complete the following exercises:

12. Display the last names of all employees where the third letter of the name is "a."

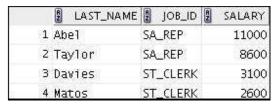


13. Display the last names of all employees who have both an "a" and an "e" in their last name.



If you want an extra challenge, complete the following exercises:

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



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. Rerun the statement in lab 03 15.sql.

