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# Chapter 4 Exercise

Submitted to Ms.Humaira Batool

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Subject DBMS-Lab

Department CS

Class BSCS-EVE

1. Write a query to display the last name, department number, and department name for all employees.

**SELECT e.last\_name, e.department\_id, d.department\_name FROM employees e, departments d WHERE e.department\_id = d.department\_id;**

1. Create a unique listing of all jobs that are in department 30. Include the location of department 90 in the output.

**SELECT DISTINCT job\_id, location\_id FROM employees, departments WHERE employees.department\_id = departments.department\_id AND employees.department\_id = 80;**

1. Write a query to display the employee last name, department name, location ID, and city of all employees who earn a commission.

**SELECT e.last\_name, d.department\_name, d.location\_id, l.c ity FROM employees e, departments d, locations l WHERE e.department\_id = d.department\_id AND d.location\_id = l.location\_id AND e.commission\_pct IS NOT NULL;**

1. Display the employee last name and department name for all employees who have an a (lowercase) in their last names. Place your SQL statement in a text file named lab4\_4.sql.

**SELECT last\_name, department\_name FROM employees, departments WHERE employees.department\_id = departments.department\_id AND last\_name LIKE '%a%';**

1. Write a query to display the last name, job, department number, and department name for all employees who work in Toronto.

**SELECT e.last\_name, e.job\_id, e.department\_id, d.department\_name FROM employees e JOIN departments d ON (e.department\_id = d.department\_id) JOIN locations l ON (d.location\_id = l.location\_id) WHERE LOWER(l.city) = 'toronto';**

1. Display the employee last name and employee number along with their manager’s last name and manager number. Label the columns Employee, Emp#, Manager, and Mgr#, respectively. Place your SQL statement in a text file named lab4\_6.sql.

**SELECT w.last\_name "Employee", w.employee\_id "EMP#", m.last\_name "Manager", m.employee\_id "Mgr#" FROM employees w join employees m ON (w.manager\_id = m.employee\_id);**

1. Modify lab4\_6.sql to display all employees including King, who has no manager. Place your SQL statement in a text file named lab4\_7.sql. Run the query in lab4\_7.sql

**SELECT w.last\_name "Employee", w.employee\_id "EMP#", m.last\_name "Manager", m.employee\_id "Mgr#" FROM employees w LEFT OUTER JOIN employees m ON (w.manager\_id = m.employee\_id);**

1. Create a query that displays employee last names, department numbers, and all the employees who work in the same department as a given employee. Give each column an appropriate label.

**SELECT e.department\_id department, e.last\_name employee, c.last\_name colleague FROM employees e JOIN employees c ON (e.department\_id = c.department\_id) WHERE e.employee\_id <> c.employee\_id ORDER BY e.department\_id, e.last\_name, c.last\_name;**

1. Show the structure of the JOB\_GRADES table. Create a query that displays the name, job, department name, salary, and grade for all employees.

**DESC JOB\_GRADES SELECT e.last\_name, e.job\_id, d.department\_name, e.salary, j.grade\_level FROM employees e, departments d, job\_grades j WHERE e.department\_id = d.department\_id AND e.salary BETWEEN j.lowest\_sal AND j.highest\_sal; -- OR SELECT e.last\_name, e.job\_id, d.department\_name, e.salary, j.grade\_level FROM employees e JOIN departments d ON (e.department\_id = d.department\_id) JOIN job\_grades j ON (e.salary BETWEEN j.lowest\_sal AND j.highest\_sal);**

1. . Create a query to display the name and hire date of any employee hired after employee Davies.

**SELECT e.last\_name, e.hire\_date FROM employees e, employees davies WHERE davies.last\_name = 'Davies' AND davies.hire\_date < e.hire\_date -- OR SELECT e.last\_name, e.hire\_date FROM employees e JOIN employees davies ON (davies.last\_name = 'Davies') WHERE davies.hire\_date < e.hire\_date;**

1. Display the names and hire dates for all employees who were hired before their managers, along with their manager’s names and hire dates. Label the columns Employee, Emp Hired, Manager, and Mgr Hired, respectively.

**SELECT w.last\_name, w.hire\_date, m.last\_name, m.hire\_date FROM employees w, employees m WHERE w.manager\_id = m.employee\_id AND w.hire\_date < m.hire\_date; -- OR SELECT w.last\_name, w.hire\_date, m.last\_name, m.hire\_date FROM employees w JOIN employees m ON (w.manager\_id = m.employee\_id) WHERE w.hire\_date < m.hire\_date;**