Database Programming with SQL
9-2: Using ROLLUP and CUBE Operations and GROUPING SETS
Practice Activities

Objectives

- Use ROLLUP to produce subtotal values
- Use CUBE to produce cross-tabulation values
- Use GROUPING SETS to produce a single result set
- Use the GROUPING function to identify the extra row values created by either a ROLLUP or CUBE operation

Vocabulary

Identify the vocabulary word for each definition below.

	Used to create subtotals that roll up from the most detailed level to a grand total, following a grouping list specified in the clause
	An extension to the GROUP BY clause like ROLLUP that produces cross-tabulation reports
	Used to specify multiple groupings of data

Try It / Solve It

1. Within the Employees table, each manager_id is the manager of one or more employees who each have a job_id and earn a salary. For each manager, what is the total salary earned by all of the employees within each job_id? Write a query to display the Manager_id, job_id, and total salary. Include in the result the subtotal salary for each manager and a grand total of all salaries.

2. Amend the previous query to also include a subtotal salary for each job_id regardless of the manager_id.

3. Using GROUPING SETS, write a query to show the following groupings:
   - department_id, manager_id, job_id
   - manager_id, job_id
   - department_id, manager_id