Database Programming with SQL

5-1: Conversion Functions

Practice Activities

Objectives

- Provide an example of an explicit data-type conversion and an implicit data-type conversion

- Explain why it is important, from a business perspective, for a language to have built-in data-conversion capabilities

- Construct a SQL query that correctly applies TO_CHAR, TO_NUMBER, and TO_DATE single-row functions to produce a desired result

- Apply the appropriate date and/or character format model to produce a desired output

- Explain and apply the use of YY and RR to return the correct year as stored in the database

Vocabulary

Identify the vocabulary word for each definition below.

	Used for text and character data of fixed length, including numbers, dashes, and special characters.
	Used to remove padded blanks or to suppress leading zeros
	Functions that convert a value from one datatype to another.
	Used to store variable-length numeric data.
	Used for character data of variable length, including numbers, special characters, and dashes.
	Used for date and time values.
	Converts dates or numbers to character strings with optional formatting

	Century value depends on the specified year and the last two digits of the current year
	Converts a character string containing digits to a number with optional formatting
	Numeric day of the month
	Converts a character string representing a date to a date value with optional formatting

Try It / Solve It

In each of the following exercises, feel free to use labels for the converted column to make the output more readable.

1. List the last names and birthdays of Global Fast Food Employees. Convert the birth dates to character data in the Month DD, YYYY format. Suppress any leading zeros.

2. Convert January 3, 04, to the default date format 03-Jan-2004.

3. Format a query from the Global Fast Foods f_promotional_menus table to print out the start_date of promotional code 110 as: The promotion began on the tenth of February 2004.

4. Convert today's date to a format such as: "Today is the Twentieth of March, Two Thousand Four"

5. List the ID, name, and salary for all Global Fast Foods employees. Display salary with a $ sign and two decimal places.

6. Ellen Abel is an employee who has received a $2,000 raise. Display her first name and last name, her current salary, and her new salary. Display both salaries with a $ and two decimal places. Label her new salary column AS New Salary.

7. On what day of the week and date did Global Fast Foods' promotional code 110 Valentine's Special begin?

8. Create one query that will convert 25-Dec-2004 into each of the following (you will have to convert 25-Dec-2004 to a date and then to character data):

    December 25th, 2004

    DECEMBER 25TH, 2004

    25th december, 2004

9. Create a query that will format the DJs on Demand d_packages columns, low-range and high-range package costs, in the format $2500.00.

10. Convert JUNE192004 to a date using the fx format model.

11. What is the distinction between implicit and explicit datatype conversion? Give an example of each.

12. Why is it important from a business perspective to have datatype conversions?