Programming 5

Katherine Hackett

5.1

Vocabulary

CHAR: 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.

NUMBER: Used to store variable-length numeric data.

VARCHAR2: Used for character data of variable length, including numbers, special characters, and dashes.

DATE: 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

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”

Today is the eighth of October, two thousand twenty 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?

5.2

Vocabulary

Converts nulls to an actual value

Returns the first non-null expression in the list

Examines the first expression; if the first expression is not null, it returns the second expression; if the first expression is null, it returns the third expression

Compares two expressions; if they are equal, the function returns null; if they are not equal, the function returns the first expression

Use aliases to make the output more readable.

1. Create a report that shows the Global Fast Foods promotional name, start date, and end date from the f\_promotional\_menus table. If there is an end date, temporarily replace it with “end in two weeks.” If there is no end date, replace it with today’s date.

2. Not all Global Fast Foods staff members receive overtime pay. Instead of displaying a null value for these employees, replace null with zero. Include the employee’s last name and overtime rate in the output. Label the overtime rate as “Overtime Status”.

3. The manager of Global Fast Foods has decided to give all staff who currently do not earn overtime an overtime rate of $5.00. Construct a query that displays the last names and the overtime rate for each staff member, substituting $5.00 for each null overtime value.

4. Not all Global Fast Foods staff members have a manager. Create a query that displays the employee last name and 9999 in the manager ID column for these employees.

5. Which statement(s) below will return null if the value of v\_sal is 50?

a. SELECT nvl(v\_sal, 50) FROM emp;

b. SELECT nvl2(v\_sal, 50) FROM emp;

c. SELECT nullif(v\_sal, 50) FROM emp;

d. SELECT coalesce (v\_sal, Null, 50) FROM emp;

6. What does this query on the Global Fast Foods table return?

SELECT COALESCE(last\_name, to\_char(manager\_id)) as NAME

FROM f\_staffs;

7.

a. Create a report listing the first and last names and month of hire for all employees in the EMPLOYEES table (use TO\_CHAR to convert hire\_date to display the month).

b. Modify the report to display null if the month of hire is September. Use the NULLIF function.

8. For all null values in the specialty column in the DJs on Demand d\_partners table, substitute “No Specialty.” Show the first name and s

5.3

Vocabulary

Compares an expression to each of the search values

An if-then-else expression whose value depends on the truth-value of a Boolean expression.

Implements conditional processing within a SQL statement; it meets the ANSI standard.

1. From the DJs on Demand d\_songs table, create a query that replaces the 2-minute songs with “shortest” and the 10-minute songs with “longest”. Label the output column “Play Times”.

2. Use the Oracle database employees table and CASE expression to decode the department id. Display the department id, last name, salary, and a column called “New Salary” whose value is based on the following conditions:

If the department id is 10 then 1.25 \* salary

If the department id is 90 then 1.5 \* salary

If the department id is 130 then 1.75 \* salary

Otherwise, display the old salary.

3. Display the first name, last name, manager ID, and commission percentage of all employees in departments 80 and 90. In a 5th column called “Review”, again display the manager ID. If they don’t have a manager, display the commission percentage. If they don’t have a commission, display 99999.