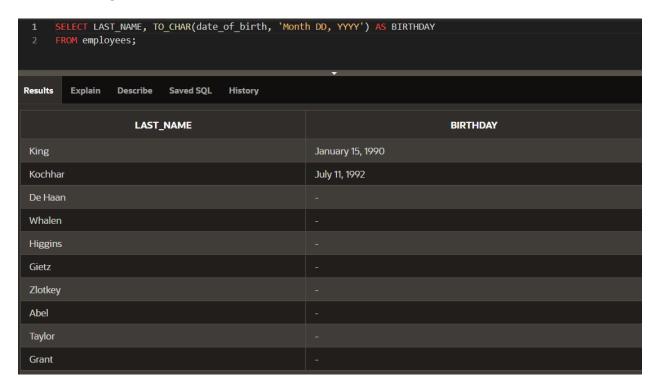
Database Programming with SQL

5-1: Conversion Functions

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.



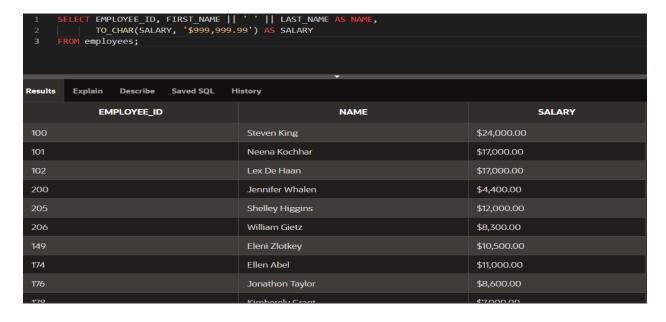
3. Format a query from the Global Fast Foods f_promotional_menus table to print out the start_date of promotional code 110 as: The promotion began on the tenth of February 2004.



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 highrange 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.
 - **Implicit Conversion:** The database automatically converts the datatype when needed.



• **Explicit Conversion:** You specify datatype conversion using functions like TO CHAR & TO DATE.



- 12. Why is it important from a business perspective to have datatype conversions?
 - Datatype conversion ensures data integrity, proper formatting for reports, and compatibility between systems. It helps present data in a human-readable form, such as formatting dates and currency values.

5-2: Null Functions

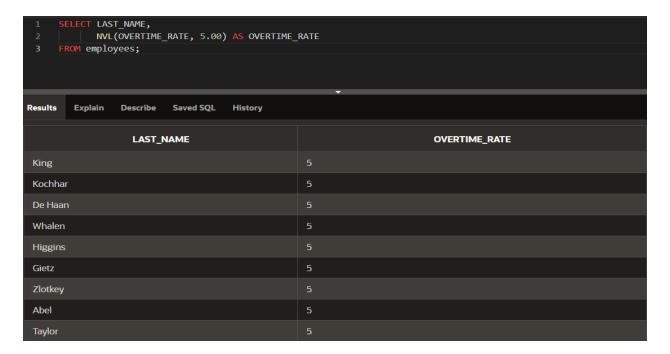
1. Create a report that shows the Global Fast Foods promotional name, start date, and end date from the f_promotional_menus table. If there is an end date, temporarily replace it with "end in two weeks." If there is no end date, replace it with today's date.



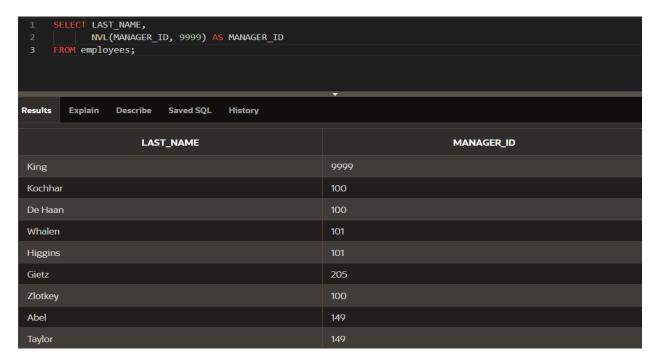
2. Not all Global Fast Foods staff members receive overtime pay. Instead of displaying a null value for these employees, replace null with zero. Include the employee's last name and overtime rate in the output. Label the overtime rate as "Overtime Status".



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.

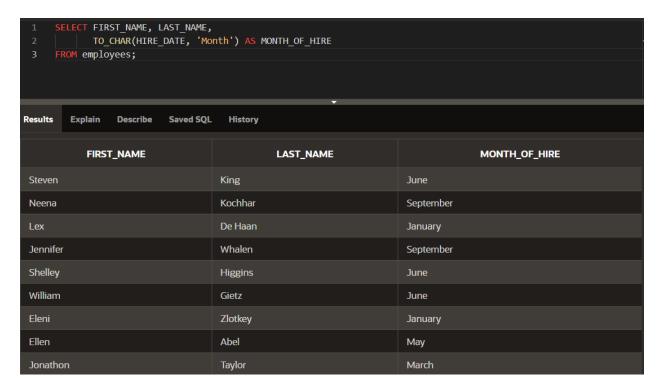


- 5. Which statement(s) below will return null if the value of v sal is 50?
 - a. SELECT nvl(v sal, 50) FROM emp;
 - b. SELECT nvl2(v_sal, 50) FROM emp;
 - c. SELECT nullif(v_sal, 50) FROM emp;
 - d. SELECT coalesce (v sal, Null, 50) FROM emp;
- 6. What does this query on the Global Fast Foods table return? SELECT COALESCE(last_name, to_char(manager_id)) as NAME FROM f_staffs;

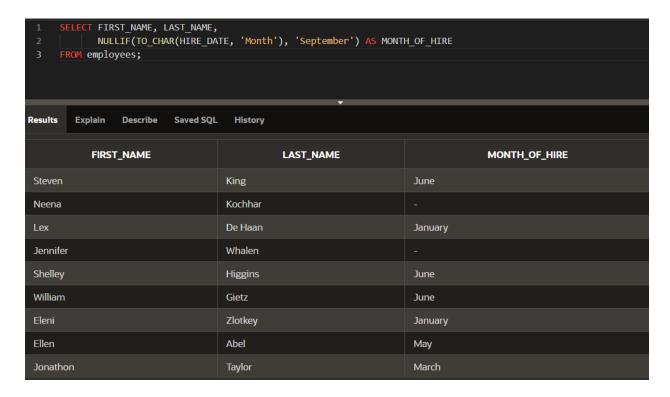


7.

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.

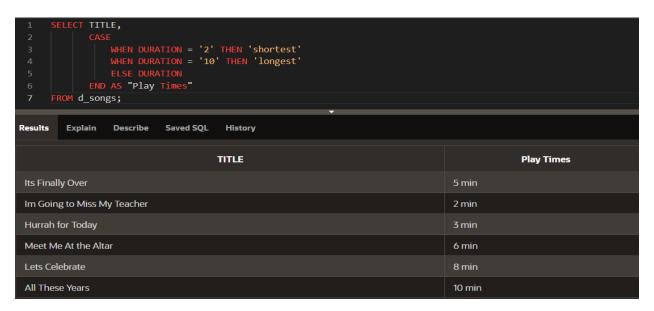


8. For all null values in the specialty column in the DJs on Demand d_partners table, substitute "No Specialty." Show the first name and s



5-2: Null Functions

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.

SELECT DEPARTMENT_ID, LAST_NAME, SALARY, CASE WHEN DEPARTMENT_ID = 10 THEN 1.25 * SALARY WHEN DEPARTMENT_ID = 90 THEN 1.5 * SALARY WHEN DEPARTMENT_ID = 130 THEN 1.75 * SALARY ELSE SALARY END AS "New Salary" FROM employees;			
Results Explain Describe Saved SQL History			
DEPARTMENT_ID	LAST_NAME	SALARY	New Salary
90	King	24000	36000
90	Kochhar	17000	25500
90	De Haan	17000	25500
10	Whalen	4400	5500
110	Higgins	12000	12000
110	Gietz	8300	8300
80	Zlotkey	10500	10500
80	Abel	11000	11000

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.

