

Database Programming with SQL

5-3: Conditional Expressions

Practice Activities

Objectives

- Compare and contrast the DECODE and CASE functions
- Construct and execute a SQL query that correctly uses the DECODE and CASE functions
- Construct and execute two methods for implementing IF-THEN-ELSE conditional logic

Vocabulary

Identify the vocabulary word for each definition below.

DECODE	Compares an expression to each of the search values
conditional expression	An if-then-else expression whose value depends on the truth-value of a Boolean expression.
CASE	Implements conditional processing within a SQL statement; it meets the ANSI standard.

Try It / Solve It

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.

```
1.
SELECT TITLE,CASE duration
WHEN '2' THEN 'Shortest'
WHEN '10' THEN 'Longest'
ELSE duration
END
as "Play Times"
```

```
FROM d_songs;
```

```
2.SELECT
department_id,last_name,salary, DECODE
(department_id,
10,1.25*salary,
90,1.5*salary,
130,1.75*salary,
salary)
as "New Salary"
FROM employees;
```

```
3.
SELECT first_name, last_name,
manager_id, commission_pct,
COALESCE
(manager_id,commission_pct ,99999)
as "Review"
FROM employees
WHERE department_id in (80, 90);
```