4-2: Conditional Control: Case Statements PL/SQL 4-2: Conditional Control: Case Statements

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Contents

1 Vocabulary

An expression that selects a result and returns it into a variable.

CASE expression
Shows the results of all possible combinations of two conditions.

Logic Tables
A block of code that performs actions based on conditional tests.

CASE statement

2 Try It / Solve It

1.A

```
DECLARE
 v_country_name wf_countries.country_name%TYPE := 'Japan';
 v_airports wf_countries.airports%TYPE;
 v_string VARCHAR2(60);
BEGIN
 SELECT airports INTO v_airports
 FROM wf_countries
```

```
 WHERE country_name = v_country_name;
 v_string :=
 CASE
 WHEN v_airports < 101 THEN 'There are 100 or fewer airports.'
 WHEN v_airports < 1001 THEN 'There are between 101 and 1,000 airports'
 WHEN v_airports < 10001 THEN 'There are between 1,001 and 10,000 airports'
 WHEN v_airports > 10000 THEN 'There are more than 10,000 airports.'
 ELSE 'The number of airports is not available for this country.'
 END;
 DBMS_OUTPUT.PUT_LINE(v_string);
END;
```

1.B

- Japan: There are more than 10,000 airports.
- Malaysia: There are between 1,001 and 10,000 airports.
- Mongolia: There are more than 10,000 airports.
- Navassa Island: The number of airports is not available for this country.
- Romania: There are between 1,001 and 10,000 airports.
- United States of America: There are more than 10,000 airports.

2.A

```
DECLARE
 v_country_name wf_countries.country_name%TYPE := 'Grenada';
 v_coastline wf_countries.coastline %TYPE;
 v_coastline_description VARCHAR2(50);
BEGIN
 SELECT coastline INTO v_coastline
 FROM wf_countries
 WHERE country_name = v_country_name;
 v_coastline_description :=
 CASE
 WHEN v_coastline = 0 THEN 'no coastline'
 WHEN v_coastline < 1000 THEN 'a small coastline'
 WHEN v_coastline < 10000 THEN 'a mid-range coastline'
 ELSE 'a large coastline'
```

```
 END;
 DBMS_OUTPUT.PUT_LINE('Country ' || v_country_name || ' has ' || v_coastline_descriptio
END;
```

2.B

- Grenada: a small coastline
- Jamaica: a large coastline
- Japan: a large coastline
- Mongolia: a large coastline
- Ukraine: a large coastline

3.A

```
DECLARE
 v_currency wf_countries.currency_code%TYPE := 'CHF';
 v_result VARCHAR2(50);
 v_count NUMBER(3);
BEGIN
 SELECT count(country_id) INTO v_count
 FROM wf_countries
 WHERE currency_code = v_currency;
 v_result :=
 CASE
 WHEN v_count < 10 THEN 'Fewer than 10 countries'
 WHEN v_count < 21 THEN 'Between 10 and 20 countries'
 ELSE 'More than 20 countries'
 END;
 DBMS_OUTPUT.PUT_LINE(v_result);
END;
```

3.B

- CHF (Swiss franc): Fewer than 10 countries
- EUR (Euro): Fewer than 10 countries

4.A

```
DECLARE
 x BOOLEAN := FALSE;
 y BOOLEAN;
 v_color VARCHAR(20) := 'Red';
BEGIN
 IF (x OR y)
 THEN v_color := 'White';
 ELSE
 v_color := 'Black';
 END IF;
 DBMS_OUTPUT.PUT_LINE(v_color);
END;
```

Output: Black

4.B

```
DECLARE
 x BOOLEAN ;
 y BOOLEAN ;
 v_color VARCHAR(20) := 'Red';
BEGIN
 IF (x OR y)
 THEN v_color := 'White';
 ELSE
 v_color := 'Black';
 END IF;
 DBMS_OUTPUT.PUT_LINE(v_color);
END;
```

Output: Black

4.C

```
DECLARE
 x BOOLEAN := TRUE;
 y BOOLEAN := TRUE;
 v_color VARCHAR(20) := 'Red';
BEGIN
 IF (x OR y)
 THEN v_color := 'White';
 ELSE
 v_color := 'Black';
```

```
 END IF;
 DBMS_OUTPUT.PUT_LINE(v_color);
END;
```

Output: White

4.D

```
DECLARE
 x BOOLEAN := FALSE;
 y BOOLEAN := FALSE;
 v_color VARCHAR(20) := 'Red';
BEGIN
 IF (x AND y)
 THEN v_color := 'White';
 ELSE
 v_color := 'Black';
 END IF;
 DBMS_OUTPUT.PUT_LINE(v_color);
END;
```

Output: Black