SQL 3 : DML 2

Exercise 1

Part 1 : Retrieving all columns from a table

1. SELECT * FROM customers;

2. SELECT * FROM teams;

3. SELECT * FROM items;

Part 2:

1. ① SELECT ctr_number, first_name, last_name, email, phone_number
   ↳   FROM customers;

2. SELECT name, number_of_players
   FROM teams;

3. SELECT name, description, category
   FROM items;

Exercise 2

Part1: Using Arithmetic operators

1. SELECT first_name, last_name, current_balance, current_balance/12
   FROM customers;

2. SELECT first_name, last_name, ctr_number, current_balance, current_balance - 5.00
   FROM customers;

3. Result for current_balance might be irrational value such as negative value

Part 2 : Using Column Aliases

1. SELECT first_name "First Name", last_name "Last Name", current_balance "Balance",
         current_balance ÷12 "Monthly Repayments"
   FROM customers;

Part 3: Using Literal character strings

1. SELECT 'the '||name||' team has '||number_of_players||' players and receives a discount
         of '||discount||' percent.' AS "Team Information"
   FROM teams;

2. the discount for the last team is a NULL value

Exercise 3

Part 1 : Using the WHERE Clause

1. SELECT *
   FROM customers
   WHERE ctr_number = 'c01986';

2. SELECT first_name "First Name", last_name "Last Name", ctr_number "Number"
   FROM customers
   WHERE current_balance > 100;

3. SELECT id "ID", odr_date "Date", odr_time "Time"
   FROM orders
   WHERE odr_date < '28-May-2019';   cod|

Part 2 : Range Conditions : BETWEEN Operator

1. SELECT id "ID", cost "Cost", units "Numbers of units"
   FROM inventory_list
   WHERE cost BETWEEN 3.00 AND 15.00;

Part 3 : Membership Conditions : IN Operator

1. SELECT id "ID, cost "Cost", units "Number of units"
   FROM inventory_list
   WHERE units IN (50, 100, 150, 200);

Part 4 : Membership Conditions : NOT IN Operator

1. SELECT id "ID", cost "Cost", units "Number of units"
   FROM inventory_list
   WHERE units NOT IN (50, 100, 150, 200);

Part 5 : Pattern Matching : LIKE Operator

1. SELECT itm_number "Number", name "Name"
   FROM items
   WHERE name LIKE 'g%';

Part 6 : Pattern Matching : Combining Wild Card Characters with the LIKE operator

1. SELECT itm_number "Number", name "Name"
   FROM items
   WHERE name LIKE '%.o%';

Exercise 4

Part 1: Using the NULL Conditions

1. SELECT 'The ' || name || ' team has ' || number_of_players || ' players and does not receive
        a discount.' AS "Team Information"
    FROM teams
    WHERE discount IS NULL;

2. SELECT 'The ' || name || ' team has ' || number_of_players || ' players and receives a
        discount of ' || discount || ' percent.' AS "Team Information"
    FROM teams;
    WHERE discount IS NOT NULL;

Part 2: Logical operators: AND

1. SELECT ctr_number "Customer Number", address_line_1 "Street Address", zip_code
        "Postal Code"
    FROM customers_addresses
    WHERE address_line_2 = 'stanford' AND city = 'Liverpool';

Part 3: Logical operators: OR

1. SELECT ctr_number "Customer Number", address_line_1 "Street Address",
        zip_code "Postal Code"
    FROM customers_addresses
    WHERE address_line_2 = 'stanford' OR city = 'Liverpool';

Part 4: Logical operators: Not Equal To

1. SELECT ctr_number "Customer Number", address_line_1 "Street Address",
        zip_code "Postal Code"
    FROM customers_addresses
    WHERE city != 'Liverpool';

Exercises

1. SELECT name "Team Name", number_of_players "Total Players"
    FROM teams
    ORDER BY name;

2. SELECT name "Team Name", number_of_players "Total Players"
    FROM teams
    ORDER BY number_of_players DESC;

3. SELECT name "Team Name", number_of_players "Players"
    FROM teams
    ORDER BY "Team Name" DESC;

Exercise 6

Part 1 : TOP-N-ANALYSIS

1. SELECT ROWNUM AS "Customer",
        first_name ||' ' || last_name AS "Customer Name"
   FROM customers
   WHERE ROWNUM < 4;

Part 2: Using a Substitution Variable

1. SELECT first_name "First Name", last_name "Last Name"
   FROM sales_representatives
   WHERE commission_rate = :new_rate
   ORDER BY last_name;