Exercise 3 - (SQL fundamentals (case statement))

Q1

```
SELECT product_name, price,
    CASE
        WHEN price > 1000 THEN 'Expensive'
        WHEN price BETWEEN 100 AND 1000 THEN 'Mide-range'
        ELSE 'Budget'
    END AS price_category
From products;
```

Output

Product_name	price	price_category
Laptop	1200.00	Expensive
Phone	800.00	Mid-range
keyboard	45.00	Budget
Monitor	300.00	Mid-range
Mouse	25.00	Budget

Q2

```
SELECT customer_name, amount,
    CASE
        WHEN amount >= 1000 THEN 'High Value'
        WHEN amount BETWEEN 500 AND 999.99 THEN 'Medium Value'
        ELSE 'Low Value'
    END AS order_value_category
FROM orders;
```

Output

customer_name	amount	order_value_category
Alice	150.05	Low Value
Bob	560.00	Medium Value
Charlie	999.99	Medium Value
Diana	45.50	Low Value
Ethan	1200.00	High Value

Q3

```
SELECT emp_name, department, Salary
  CASE
    WHEN department = 'IT' AND Salary > 80000 THEN 'Senior IT'
    WHEN department = 'HR' AND Salary > 55000 THEN 'Experienced HR'
     ELSE 'Staff'
END AS position_level
FROM employee;
```

Output

emp_name	department	Salary	position_level
John	IT	85000	Senior IT
Sara	HR	60000	Experienced HR
Mark	IT	75000	Staff
Lucy	Finance	90000	Staff
Tom	HR	55000	Staff

Q4

```
SELECT student_name, score,
  CASE
   WHEN score >= 90 THEN 'A'
   WHEN score BETWEEN 80 AND 89 THEN 'B'
   WHEN score BETWEEN 70 AND 79 THEN 'C'
   WHEN score BETWEEN 60 AND 69 THEN 'D'
   ELSE 'F'
  END AS grade
  FROM students;
```

output

student_name	score	grade
Anna	92	A
Ben	76	C
Cara	59	F
David	83	B
Ella	68	D

Q5

```
SELECT delivery_id, delivery_time_minutes,
   CASE
     WHEN delivery_time_minutes <= 30 THEN 'Fast'
     WHEN delivery_time_minutes BETWEEN 31 AND 60 THEN 'on time'
     ELSE 'Late'
   END AS performance
  FROM deliveries;
```

Output

delivery_id	delivery_time_minutes	performance
1	45	On Time
2	80	late
3	30	Fast
4	65	late
5	100	late

Q6

```
SELECT issue_type, priority,
  CASE
    WHEN priority = 3 THEN 'High'
    WHEN priority = 2 THEN 'Medium'
    WHEN priority = 1 THEN 'Low'
END AS priority_label
FROM tickets;
```

Output

issue_type	priority	priority_label
login issue	1	Low
Server down	3	High
Slow System	2	Medium
Email error	2	Medium
Password reset	1	Low

Q7

```
SELECT student_id
    ((days_present / total_days) * 100) AS attendance_percentage,
CASE
WHEN attendance_percentage >= 90 THEN 'Excellent'
WHEN attendance_percentage BETWEEN 75 AND 89 THEN 'Good'
ELSE 'Need Improvement'
END AS attendance_status
From attendance;
```

output

student_id	attendance_percentage	attendance_status
1	90.00	Excellent
2	60.00	Need Improvement
3	96	Excellent
4	50	Need Improvement
5	100	Excellent

Q8

```
SELECT product_id, stock_qty,
  CASE
    WHEN stock_qty = 0 THEN 'out of stock'
    WHEN stock_qty BETWEEN 1 AND 5 THEN 'Low Stock'
    ELSE 'In stock'
  END AS stock_status
FROM product_inventory;
```

Output

product_id	Stock_qty	Stock_Status
1	5	Low Stock
2	0	out of Stock
3	25	In Stock
4	10	In Stock
5	3	Low Stock

Q9

```
SELECT  Subject, enrolled_students,
CASE
    WHEN enrolled_student >= 25 THEN 'Large'
    WHEN enrolled_students BETWEEN 10 AND 24 THEN 'Medium'
    ELSE 'Small'
END AS class_size_category
FROM classes
```

Output

Subject	enrolled_student	class_size_category
Math	30	large
English	25	Large
Science	15	Medium
Art	5	Small
History	20	Medium

Q10

```
SELECT payment_id, payment_method, amount,
CASE
  WHEN payment_method='Cash' AND amount >=200 THEN 'Eligible for Discount'
  ELSE 'Not Eligible'
END AS discount_eligibility
FROM payment;
```

output

payment_id	payment_method	amount	discount_eligibility
1	Card	50.00	Not Eligible
2	Cash	200.00	Eligible for Discount
3	Card	150.00	Not Eligible
4	PayPal	75.00	Not Eligible
5	Cash	300.00	Eligible for Discount

---- END ----