

BrightLearn Tutorial - Data Analytics

SQL Fundamentals Exercise 3: SQL CASE Statements

1. Table: products

```
SELECT product-name,  
       price,  
       CASE  
         WHEN price > 1000 THEN 'Expensive'  
         WHEN price BETWEEN 100 AND 1000  
           THEN 'Mid-range'  
         ELSE 'Budget'
```

END AS price-category

FROM products;

Expected output:

Product-name	price	price-category
Laptop	1200	Expensive
phone	800	Mid-range
keyboard	45	Budget
Monitor	300	Mid-range
Mouse	25	Budget

2. Table: orders

```
SELECT customer - name,  
        amount
```

```
    CASE
```

```
    WHEN amount  $\geq$  1000 THEN 'High value'
```

```
    WHEN amount BETWEEN 500 AND 999.99  
    THEN 'Medium value'
```

```
    ELSE 'Low value'
```

```
END AS order - value - category
```

FROM orders;

Expected output:

customer - name	amount	value order - value - category
Alice	150.00	Low value
Bob	500.00	Medium value
Charlie	999.99	Medium value
Diana	45.50	Low value
Ethan	1200.00	High value

3. Table: employees

```
SELECT emp_name,  
        department,  
        salary
```

```
    CASE
```

```
    WHEN department = 'IT' AND salary  $\geq$  8000  
    THEN 'Senior IT'
```

```
    WHEN department = 'HR' AND salary  $\geq$  5500  
    THEN 'Experienced HR'
```


ELSE 'Staff'
 END AS position_level
 FROM employees;

Expected Output:

~~Emp - Id~~

emp-name	department	salary	position_level
John	IT	85000	Senior IT
Sara	HR	60000	Experienced HR
Mark	IT	75000	Staff
Luey	Finance	95000	Staff
Tom	HR	85000	Staff

4. Table: students

SELECT student-name,
 score

CASE

WHEN score \geq 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;

Expected output:

student_name	score	grade
Anna	92	A
Ben	75	C
Cara	59	F
David	83	B
Ella	68	D

5. Table: deliveries

```
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;

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

6. Table: tickets

```
SELECT issue-type,  
       priority  
CASE  
  WHEN priority = 3 THEN 'High'  
  WHEN priority = 2 THEN 'Medium'  
  ELSE 'Low'  
END AS priority-label
```

FROM tickets;

Expected output:

~~Report Id~~

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

7. Table: attendance

```
SELECT student-id,  
       (days-presented * 100 / total-days)  
       AS attendance-percentage  
CASE  
  WHEN (days-presented * 100 / total-days)  
       >= 90 THEN 'Excellent'
```

```

WHEN (days-presented * 100 / total-days)
BETWEEN 75 AND 89 THEN 'good'
ELSE 'Needs Improvement'
END AS attendance-status
FROM attendance;

```

Expected output:

Student-ID	attendance-percentage days	attendance-status
1	90	Excellent
2	80	Needs Improvement
3	95	Excellent
4	50	Needs Improvement
5	100	Excellent

8. Table: products-inventory

```

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 products-inventory;

```


Expected 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

9. Table classes

```
SELECT subject,  
       enrolled-students  
CASE  
  WHEN enrolled-students >= 25  
  THEN 'Large'  
  WHEN enrolled-students BETWEEN  
  10 AND 24 THEN 'Medium'  
  ELSE 'Small'  
END AS class-size-category
```

FROM classes;

class-id	subject
1	Maths
2	English
3	Science
4	Art
5	History

Expected output:

subject	enrolled_students	class_size_category
Math	30	Large
English	25	Large
Science	15	Medium
Art	5	Small
History	20	Medium

10. Table: payments

```
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 payments;

payment_id	payment_method	discount_eligibility
1	Card	Not Eligible
2	Cash	Eligible for Discount
3	Card	Not Eligible
4	Paypal	Not Eligible
5	Cash	Eligible for Discount