

# Can You Solve This TRICKY Flipkart interview Question? - SQL

Find customers who bought *both Laptop and Mouse, but never bought Phone Case*, and return how many distinct products they purchased?

## INPUT

order_id	customer_id	product_name
1	1	Laptop
2	1	Mouse
3	1	Keyboard
4	2	Laptop
5	2	Monitor
6	3	Laptop
7	3	Mouse
8	3	Charger

## OUTPUT

customer_id	total_distinct_products
1	3
3	3

Learn this SQL

Pattern in **29 sec**



# Query:

>Selective Buyers Analysis

```
SELECT
    customer_id,
    COUNT(DISTINCT product_name) AS total_distinct_products
FROM orders
GROUP BY customer_id
HAVING
    -- Must have BOTH Laptop and Mouse
    COUNT(DISTINCT CASE
        WHEN product_name IN ('Laptop', 'Mouse')
        THEN product_name
    END) = 2

    -- Must NOT have Phone Case
    AND MAX(CASE
        WHEN product_name = 'Phone Case' THEN 1
        ELSE 0
    END) = 0;
```



# Pattern Query:

Selective Buyers Analysis

```
GROUP BY customer_id
```

```
HAVING
```

```
-- Must have BOTH A and B
```

```
COUNT(DISTINCT CASE
```

```
    WHEN product_name IN ('A','B') THEN product_name
```

```
END) = 2
```

```
-- Must NOT have C
```

```
AND MAX(CASE
```

```
    WHEN product_name = 'C' THEN 1 ELSE 0 END) = 0;
```

```
-- This means: The customer did ALL required actions
```

```
COUNT(DISTINCT CASE
```

```
    WHEN item IN (list) THEN item
```

```
END) = number_of_items_in_list
```

```
-- This means: The customer did NONE of the forbidden  
actions
```

```
MAX(CASE
```

```
    WHEN item IN (forbidden_list) THEN 1
```

```
    ELSE 0
```

```
END) = 0
```



Anandnarayanan S

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