

ASSIGNMENT 2 :

1) Display the list of products (Id, Title, Count of Categories) which fall in more than one Category.

// product table

product_id	product_name	order_item_id	price	stock_count	image_url	category_id	child_category_name	created_at
1	iPhone 13	1	1000	50	url1	1	Mobile Phones	2025-03-24 17:53:30
2	MacBook Air	2	1500	30	url2	1	Laptops	2025-03-24 17:53:30
3	Men's T-Shirt	3	20	200	url3	2	Men's Wear	2025-03-24 17:53:30
4	Women's Dress	4	50	150	url4	2	Women's Wear	2025-03-24 17:53:30
5	Blender	5	45	100	url5	3	Kitchen Appliances	2025-03-24 17:53:30
6	Novel - XYZ	6	10	300	url6	4	Fiction	2025-03-24 17:53:30
7	Biography - ABC	7	15	120	url7	4	Non-fiction	2025-03-24 17:53:30
8	Dumbbells	8	30	80	url8	5	Fitness	2025-03-24 17:53:30
9	Tent	9	100	50	url9	5	Outdoor	2025-03-24 17:53:30
10	Study Desk	10	200	40	url10	7	Study Tables	2025-03-24 17:53:30

// Category table

category_id	category_name
9	Beauty
4	Books
2	Clothing
1	Electronics
7	Furniture
10	Groceries
3	Home Appliances
5	Sports
8	Stationery
6	Toys

// result table

SELECT

```

    p.product_id AS Id,
    p.product_name AS Title,
    COUNT(DISTINCT c.category_id) AS Count_of_Categories
FROM
    Product p
INNER JOIN
    Category c
ON
    p.category_id = c.category_id
GROUP BY
    p.product_id, p.product_name
HAVING
    COUNT(DISTINCT c.category_id) > 1;

```

// output

Id	Title	Count_of_Categories
1	iPhone 13	1
2	MacBook Air	1
3	Men's T-Shirt	1
4	Women's Dress	1
5	Blender	1
6	Novel - XYZ	1
7	Biography - ABC	1
8	Dumbbells	1
9	Tent	1
10	Study Desk	1

2) Display Count of products as per below price range:

Range in Rs. Count

0 - 100

101 - 500

Above 500

// product table

product_id	product_name	order_item_id	price	stock_count	image_url	category_id	child_category_name	created_at
1	iPhone 13	1	1000	50	url1	1	Mobile Phones	2025-03-24 17:53:30
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```
SELECT
CASE
    WHEN price BETWEEN 0 AND 100 THEN '0 - 100'
    WHEN price BETWEEN 101 AND 500 THEN '101 - 500'
    ELSE 'Above 500'
END AS Price_Range,
COUNT(*) AS Product_Count
FROM
    Product
GROUP BY
    Price_Range;
```

/// result table

Price_Range	Product_Count
Above 500	2
0 - 100	7
101 - 500	1

3) Display the Categories along with number of products under each category.

// category table

category_id	category_name
9	Beauty
4	Books
2	Clothing
1	Electronics
7	Furniture
10	Groceries
3	Home Appliances
5	Sports
8	Stationery
6	Toys

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```
SELECT
    c.category_name AS Category,
    COUNT(p.product_id) AS Product_Count
FROM
    Category c
LEFT JOIN
    Product p
ON
    c.category_id = p.category_id
GROUP BY
    c.category_name;
```

// result table

Category	Product_Count
Beauty	0
Books	2
Clothing	2
Electronics	2
Furniture	1
Groceries	0
Home Appliances	1
Sports	2
Stationery	0
Toys	0

