



ATLIQ HARDWARES

CONSUMER GOODS

AD-HOC INSIGHTS

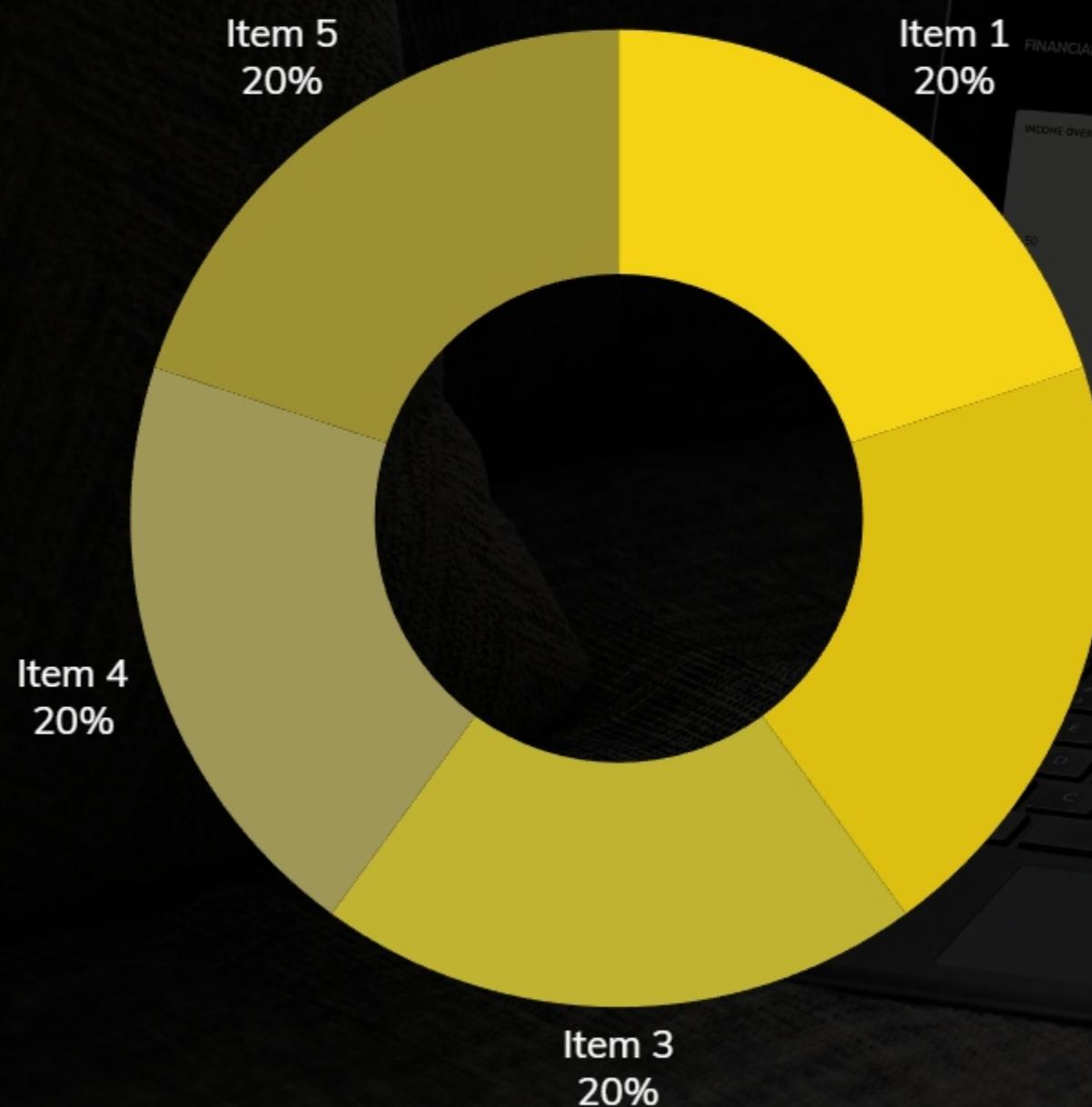
BY USING SQL



THENNARASU M

ABOUT COMPANY:

ATLIQ HARDWARES

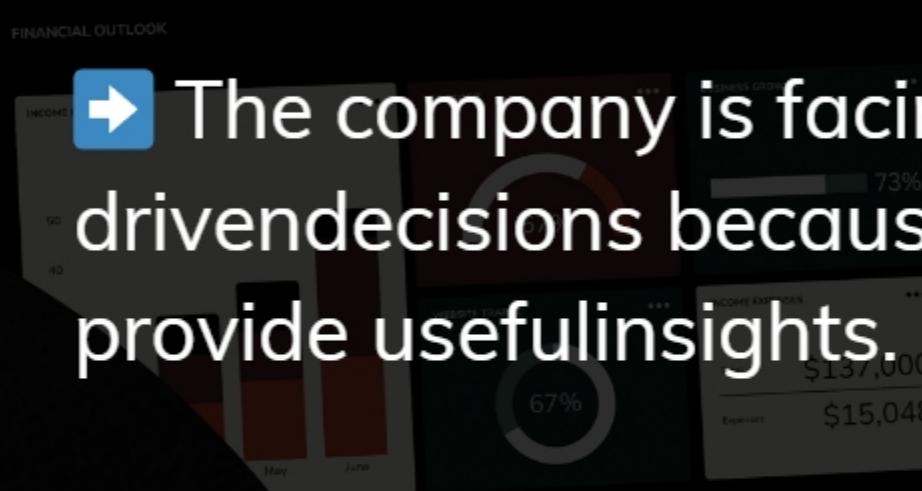


→ AtliQ Hardwares is a fast-growing global tech company known for its wide range of hardware products, including mice, desktops, laptops, and storage devices.

→ These are offered in Standard, Plus, and Premium variants, catering to diverse customer needs with a strong focus on quality and innovation.

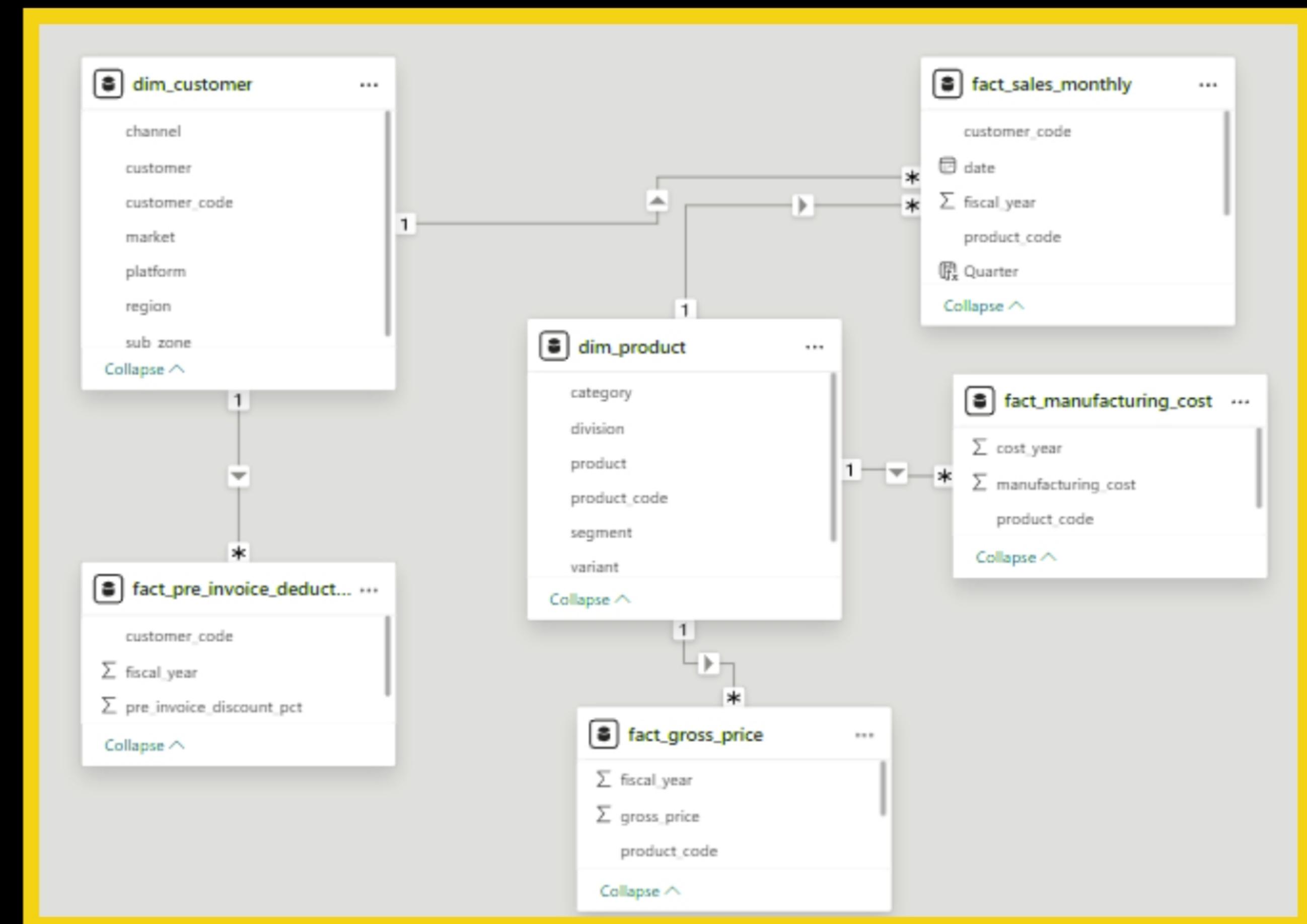
INCOME RAISE

PROBLEM STATEMENT



- ➡ The company is facing challenges in making quick, data-driven decisions because the current data systems don't provide useful insights.
- ➡ The leadership team needs clearer information on important metrics to plan effectively.
- ➡ To solve this, the company is growing its data analytics team and has listed 10 specific questions that need data insights.

DATA MODEL:



AD-HOC REQUEST #01

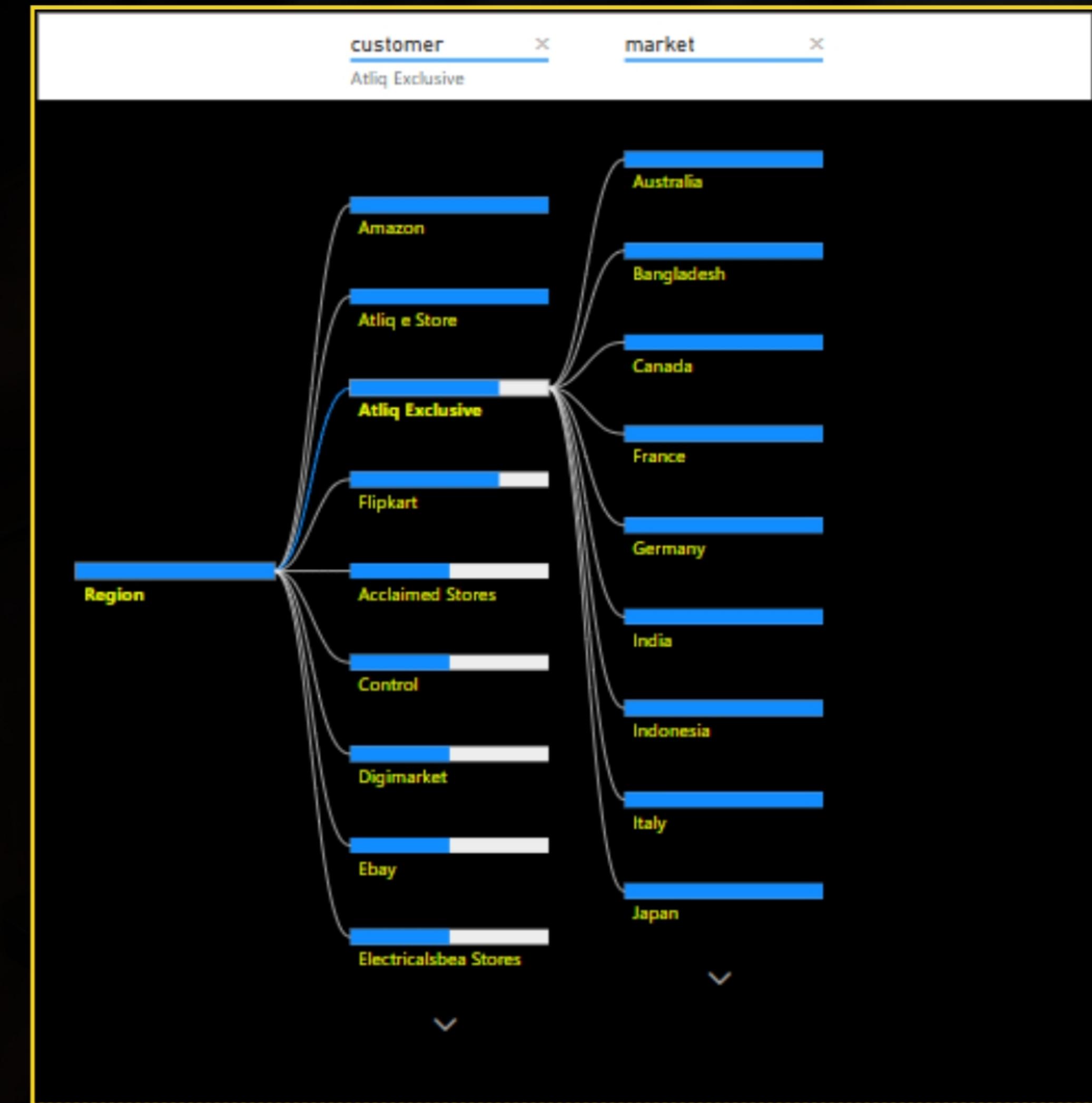
PROVIDE THE LIST OF MARKETS IN WHICH CUSTOMER "ATLIQ EXCLUSIVE" OPERATES ITS BUSINESS IN THE APAC REGION.

- `select market from dim_customer where customer='Atliq Exclusive' and region = 'APAC';`

AD-HOC REQUEST #01

RESULT:

Result Grid	
	market
▶	India
▶	Indonesia
▶	Japan
▶	Philippines
▶	South Korea
▶	Australia
▶	Newzealand
▶	Bangladesh
▶	India



AD-HOC REQUEST #02

WHAT IS THE PERCENTAGE OF UNIQUE PRODUCT INCREASE IN 2021 VS. 2020?

THE FINAL OUTPUT CONTAINS THESE FIELDS,

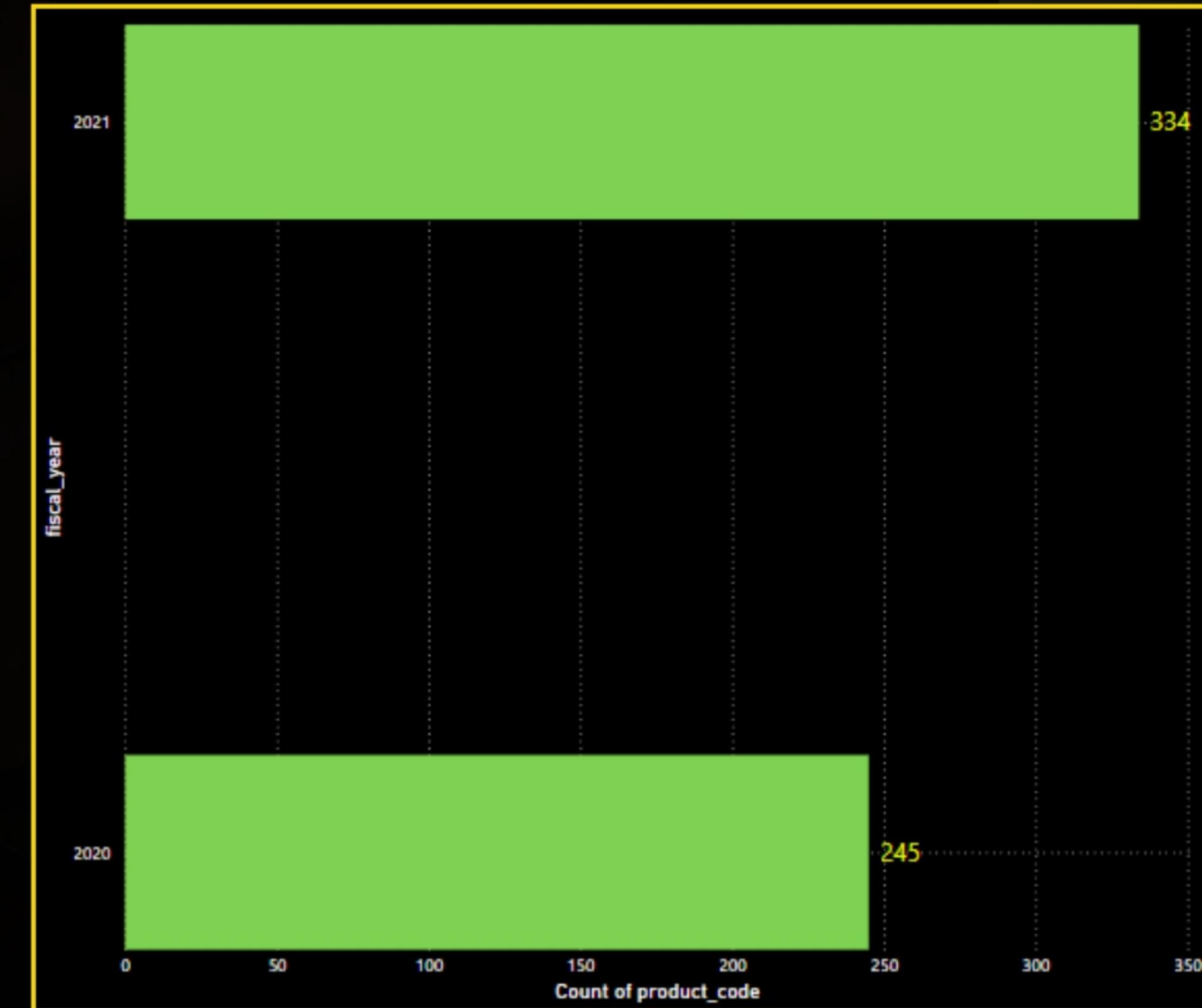
1. UNIQUE_PRODUCTS_2020
2. UNIQUE_PRODUCTS_2021
3. PERCENTAGE_CHG

```
WITH S AS (
    select
        count(distinct case when fiscal_year = 2020 then product_code end) as unique_products_2020,
        count(distinct case when fiscal_year = 2021 then product_code end) as unique_products_2021
    from fact_sales_monthly
)
SELECT
    unique_products_2020,
    unique_products_2021,
    ROUND(
        ((unique_products_2021 - unique_products_2020) * 100.0) / unique_products_2020, 2) AS percentage_chg
FROM S;
```

AD-HOC REQUEST #02

RESULT:

	unique_products_2020	unique_products_2021	percentage_chg
▶	245	334	36.33



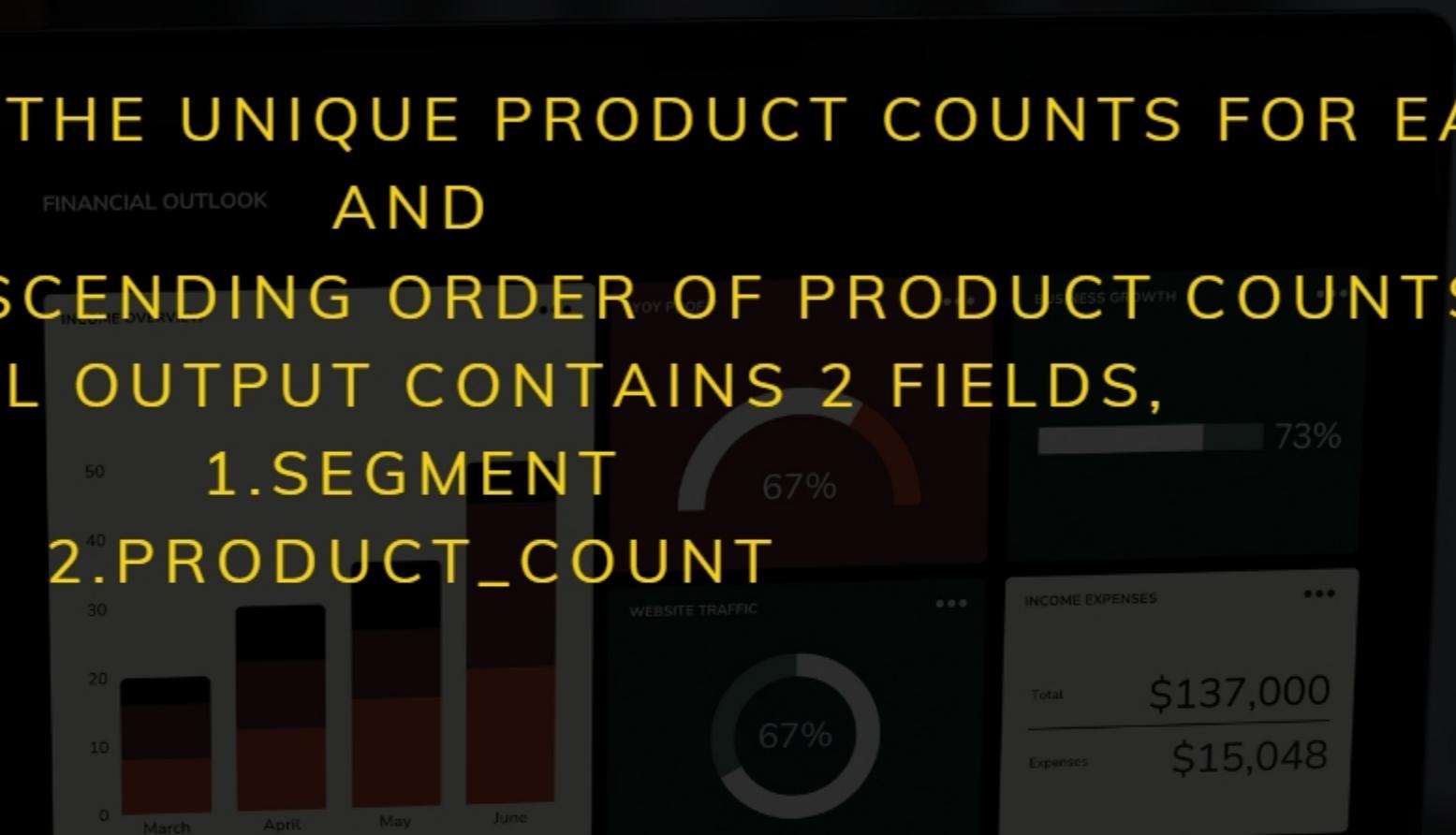
THENNARASU M

AD-HOC REQUEST #03

PROVIDE A REPORT WITH ALL THE UNIQUE PRODUCT COUNTS FOR EACH SEGMENT AND SORT THEM IN DESCENDING ORDER OF PRODUCT COUNTS.

THE FINAL OUTPUT CONTAINS 2 FIELDS,

1. SEGMENT
2. PRODUCT_COUNT

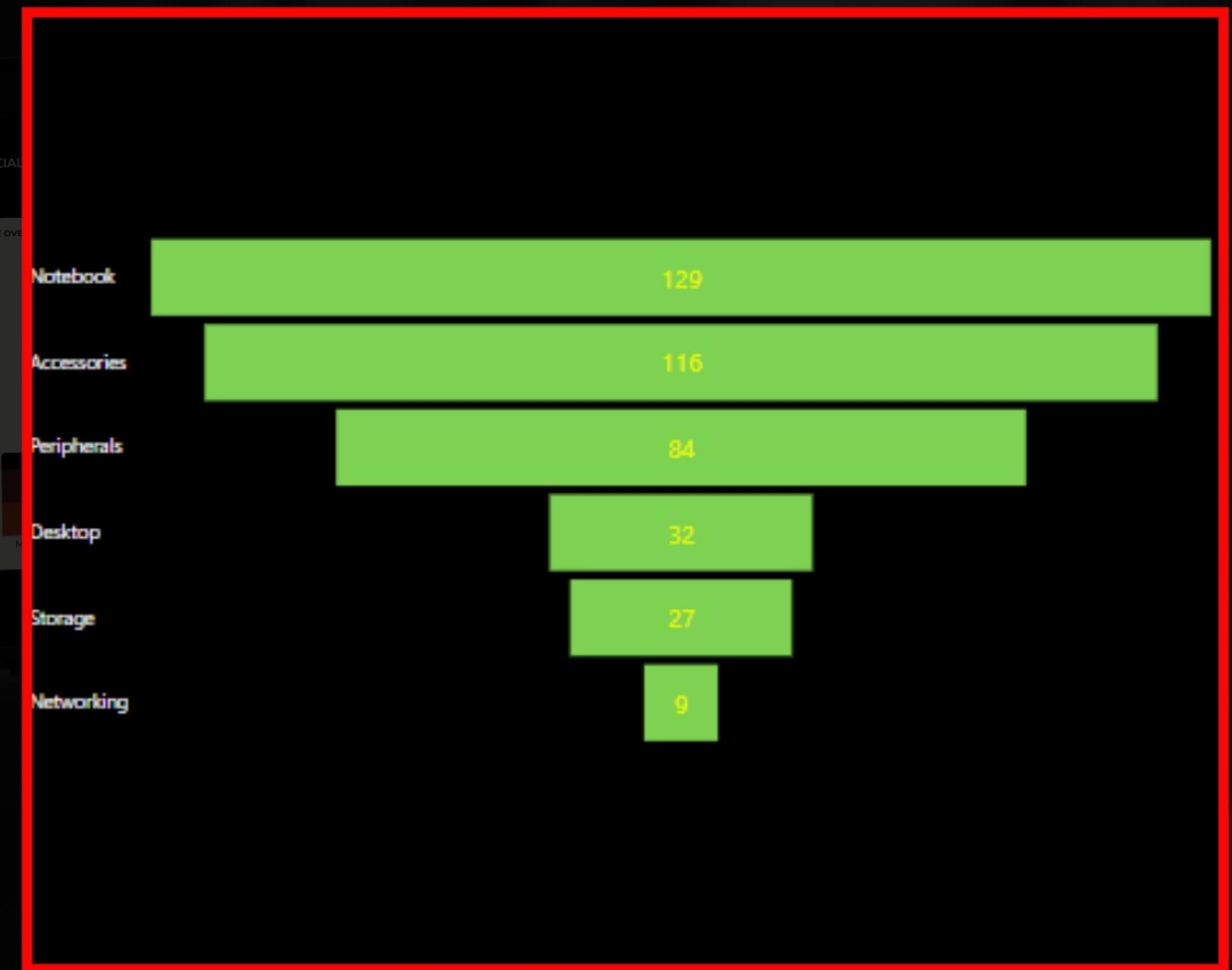


```
select segment, count(distinct product_code) as product_count
from dim_product group by segment order by product_count desc;
```

AD-HOC REQUEST #03

RESULT:

	segment	product_count
▶	Notebook	129
	Accessories	116
	Peripherals	84
	Desktop	32
	Storage	27
	Networking	9



AD-HOC REQUEST #04

WHICH SEGMENT HAD THE MOST INCREASE IN UNIQUE PRODUCTS IN 2021 VS 2020?

THE FINAL OUTPUT CONTAINS THESE FIELDS,

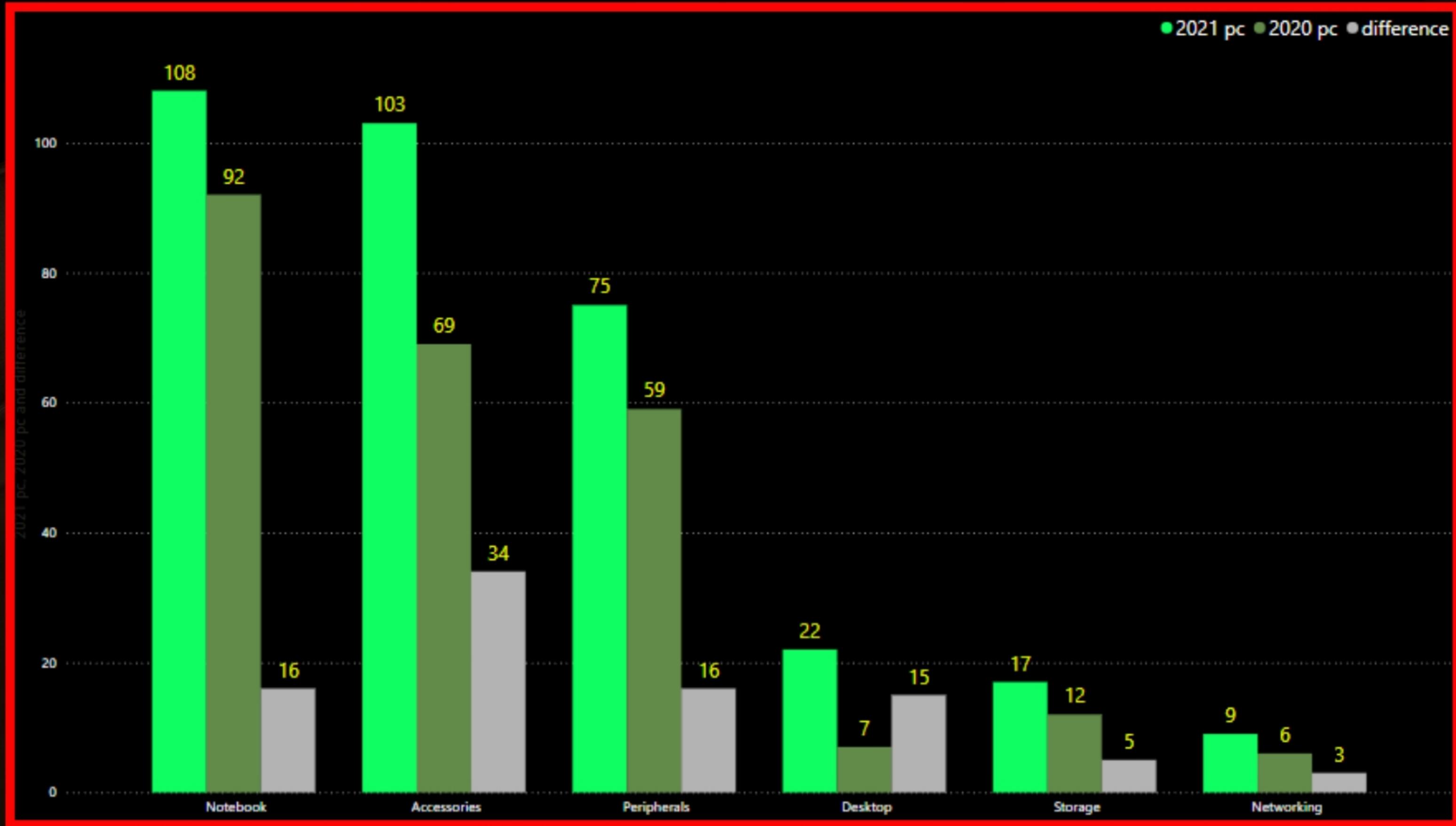
- 1.SEGMENT PRODUCT_COUNT_2020
- 2.PRODUCT_COUNT_2021
- 3.DIFFERENCE

```
with A as (
    select segment,
        count(distinct case when fiscal_year=2020 then product_code end) as product_count_2020,
        count(distinct case when fiscal_year=2021 then product_code end) as product_count_2021
    from dim_product join fact_gross_price using (product_code) group by segment)
select
    Segment,product_count_2020,product_count_2021,(product_count_2021-product_count_2020) as difference
from A
order by difference desc limit 1;
```

AD-HOC REQUEST #04

RESULT:

	Segment	product_count_2020	product_count_2021	difference
▶	Accessories	69	103	34



AD-HOC REQUEST #05

GET THE PRODUCTS THAT HAVE THE HIGHEST AND LOWEST MANUFACTURING COSTS.
THE FINAL OUTPUT SHOULD CONTAIN THESE FIELDS,

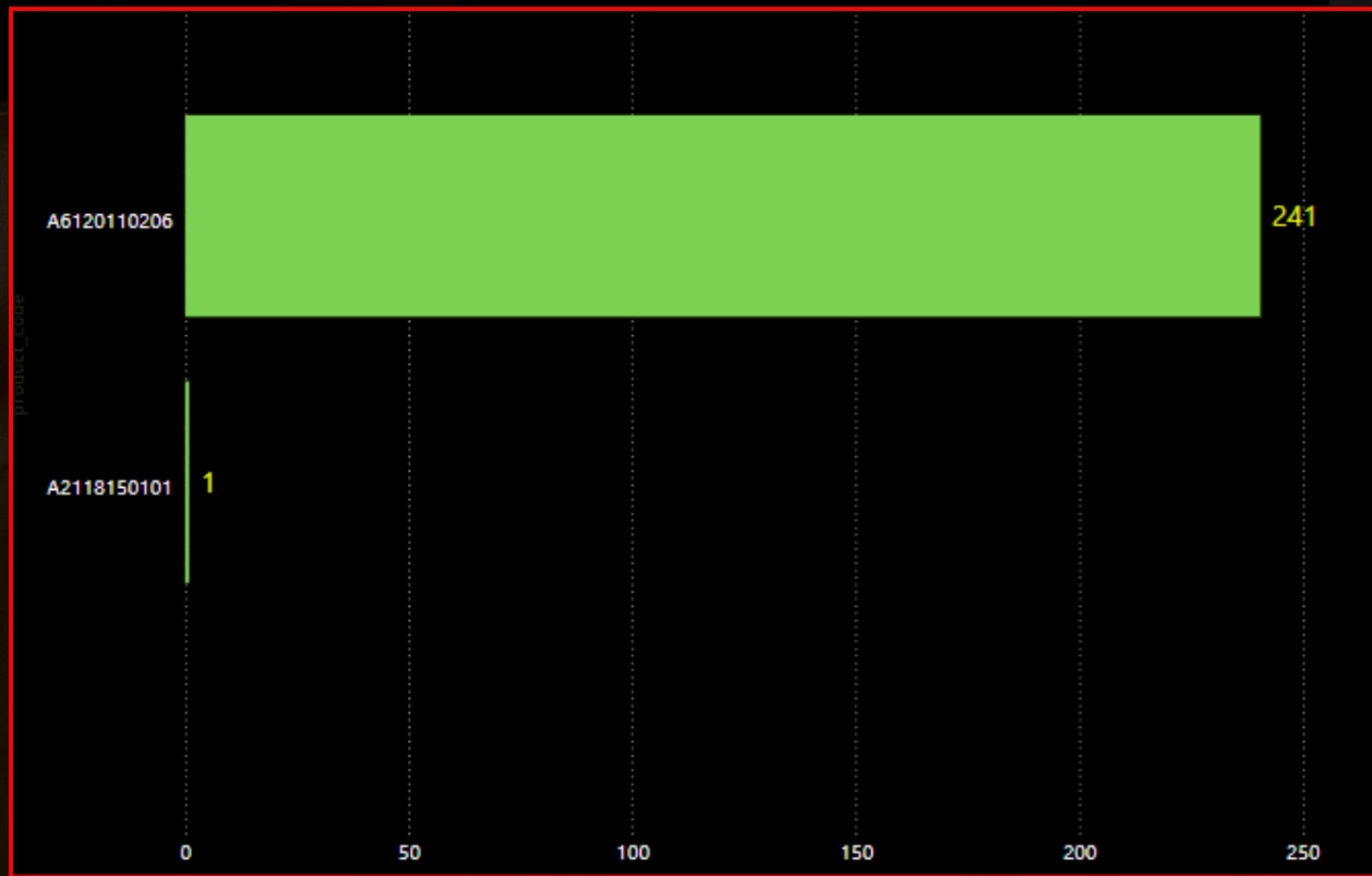
1. PRODUCT_CODE
2. PRODUCT
3. MANUFACTURING_COST

```
select
    product_code,product,manufacturing_cost
from
    dim_product join fact_manufacturing_cost using (product_code)
where
    manufacturing_cost = (SELECT MAX(manufacturing_cost) FROM fact_manufacturing_cost)
    OR
    manufacturing_cost = (SELECT MIN(manufacturing_cost) FROM fact_manufacturing_cost);
```

AD-HOC REQUEST #05

RESULT:

	product_code	product	manufacturing_cost
▶	A2118150101	AQ Master wired x1 Ms	0.8920
	A6120110206	AQ HOME Allin1 Gen 2	240.5364



AD-HOC REQUEST #06

GENERATE A REPORT WHICH CONTAINS THE TOP 5 CUSTOMERS WHO RECEIVED AN AVERAGE HIGH PRE_INVOICE_DISCOUNT_PCT FOR THE FISCAL YEAR 2021 AND IN THE INDIAN MARKET.

THE FINAL OUTPUT CONTAINS THESE FIELDS,

1.CUSTOMER_CODE

2.CUSTOMER

3.CUSTOMER_AVERAGE_DISCOUNT_PERCENTAGE

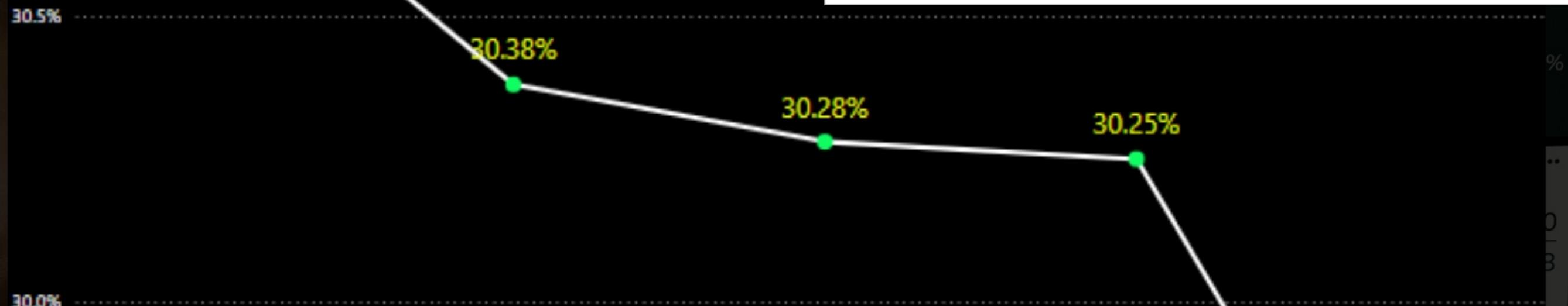


```
select
customer_code, customer, concat(round(avg(pre_invoice_discount_pct)*100,2), '%') as average_discount_percentage
from dim_customer join fact_pre_invoice_deductions using (customer_code)
where fiscal_year=2021 and market= 'india'
group by customer_code, customer
order by round(avg(pre_invoice_discount_pct)*100,2)
desc limit 5;
```

AD-HOC REQUEST #06

RESULT:

	customer_code	customer	average_discount_percentage
▶	90002009	Flipkart	30.83%
	90002006	Viveks	30.38%
	90002003	Ezone	30.28%
	90002002	Croma	30.25%
	90002016	Amazon	29.33%



90002009
Flipkart

90002006
Viveks

90002003
Ezone

90002002
Croma

90002016
Amazon

AD-HOC REQUEST #07

GET THE COMPLETE REPORT OF THE GROSS SALES AMOUNT FOR THE CUSTOMER
“ATLIQ EXCLUSIVE” FOR EACH MONTH .

THIS ANALYSIS HELPS TO GET AN IDEA OF LOW AND HIGH-PERFORMING MONTHS
AND
TAKE STRATEGIC DECISIONS.

THE FINAL REPORT CONTAINS THESE COLUMNS:

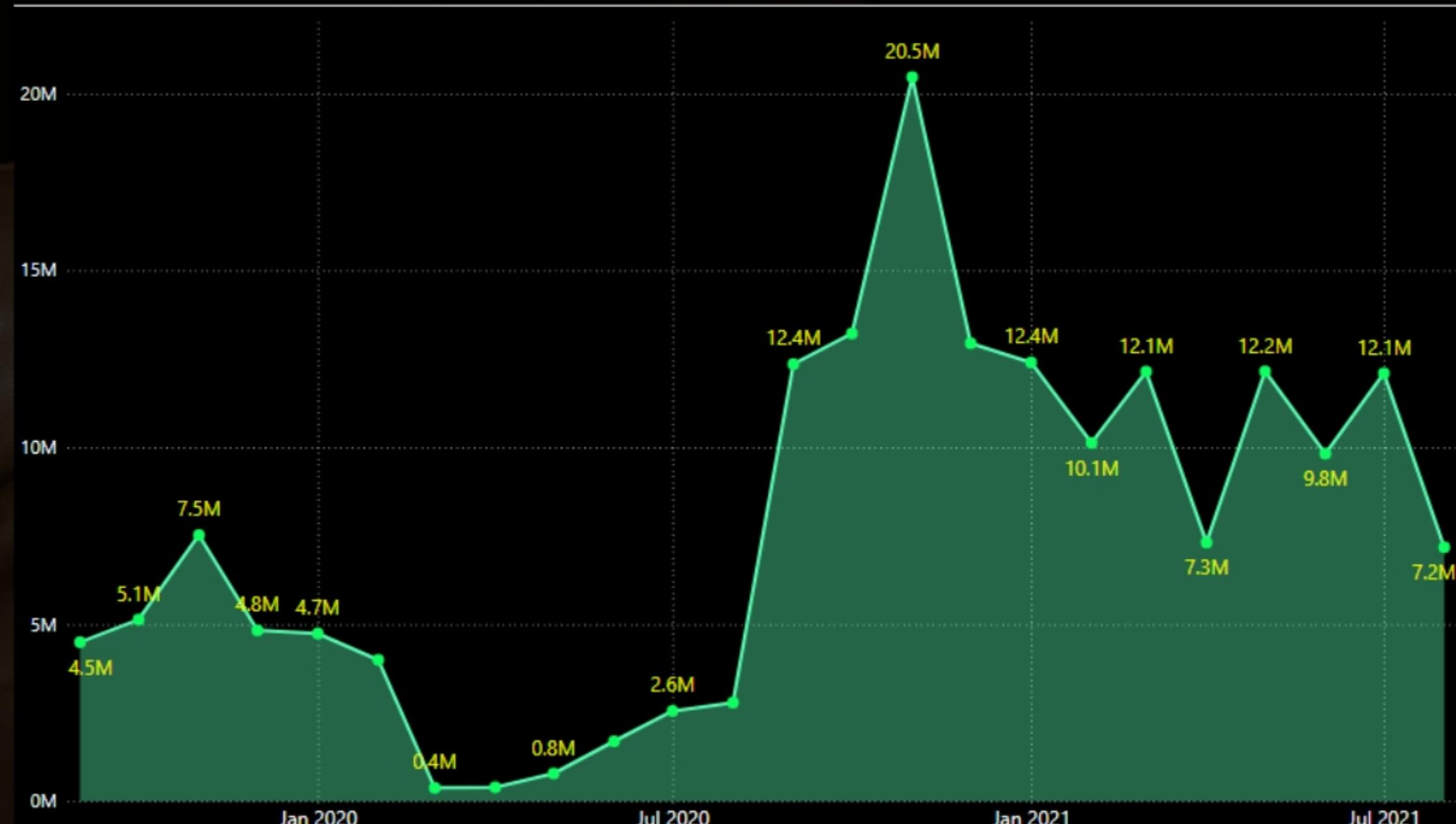
- 1.MONTH
- 2.YEAR
- 3.GROSS SALES AMOUNT



```
select
    month(fsm.date) month_no ,monthname(fsm.date) as month,fsm.fiscal_year as year,
    concat(round(sum(fgp.gross_price * fsm.sold_quantity)/1000000,2),'M') as Gross_Sales_Amount
from fact_gross_price fgp join fact_sales_monthly fsm using (product_code)
    join dim_customer dc using(customer_code)
where dc.customer='Atliq Exclusive'
group by year,month_no,month
order by year,month_no;
```

AD-HOC REQUEST #07

RESULT:



	month_no	month	year	Gross_Sales_Amount
►	1	January	2020	9.58M
	2	February	2020	8.08M
	3	March	2020	0.77M
	4	April	2020	0.80M
	5	May	2020	1.59M
	6	June	2020	3.43M
	7	July	2020	5.15M
	8	August	2020	5.64M
	9	September	2020	9.09M
	10	October	2020	10.38M
	11	November	2020	15.23M
	12	December	2020	9.76M
	1	January	2021	19.57M
	2	February	2021	15.99M
	3	March	2021	19.15M
	4	April	2021	11.48M
	5	May	2021	19.20M
	6	June	2021	15.46M
	7	Jul ..	2021	10.04M

AD-HOC REQUEST #08

IN WHICH QUARTER OF 2020, GOT THE MAXIMUM TOTAL_SOLD_QUANTITY?

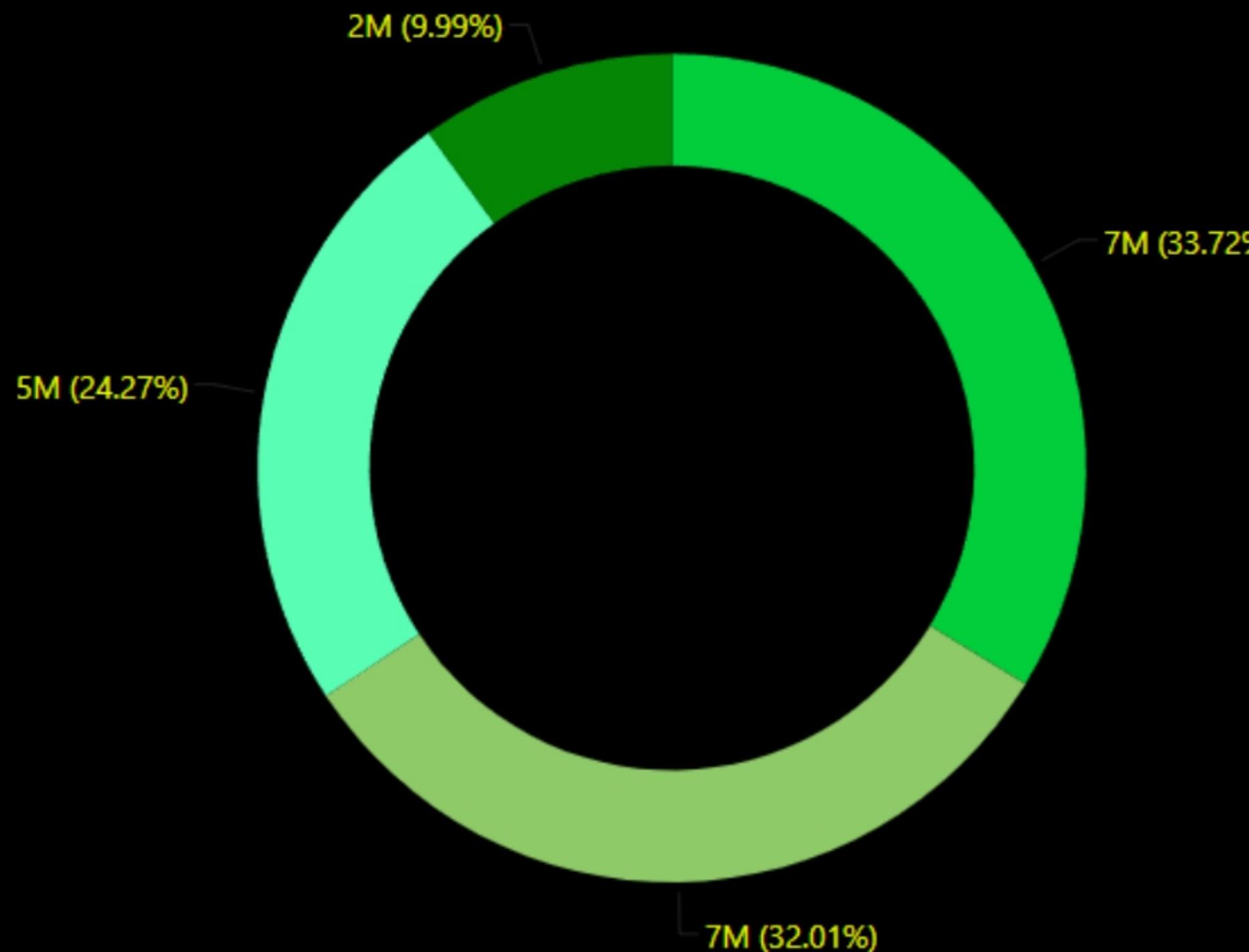
THE FINAL OUTPUT CONTAINS THESE FIELDS

- 1.SORTED BY THE TOTAL_SOLD_QUANTITY,
- 2.QUARTER TOTAL_SOLD_QUANTITY

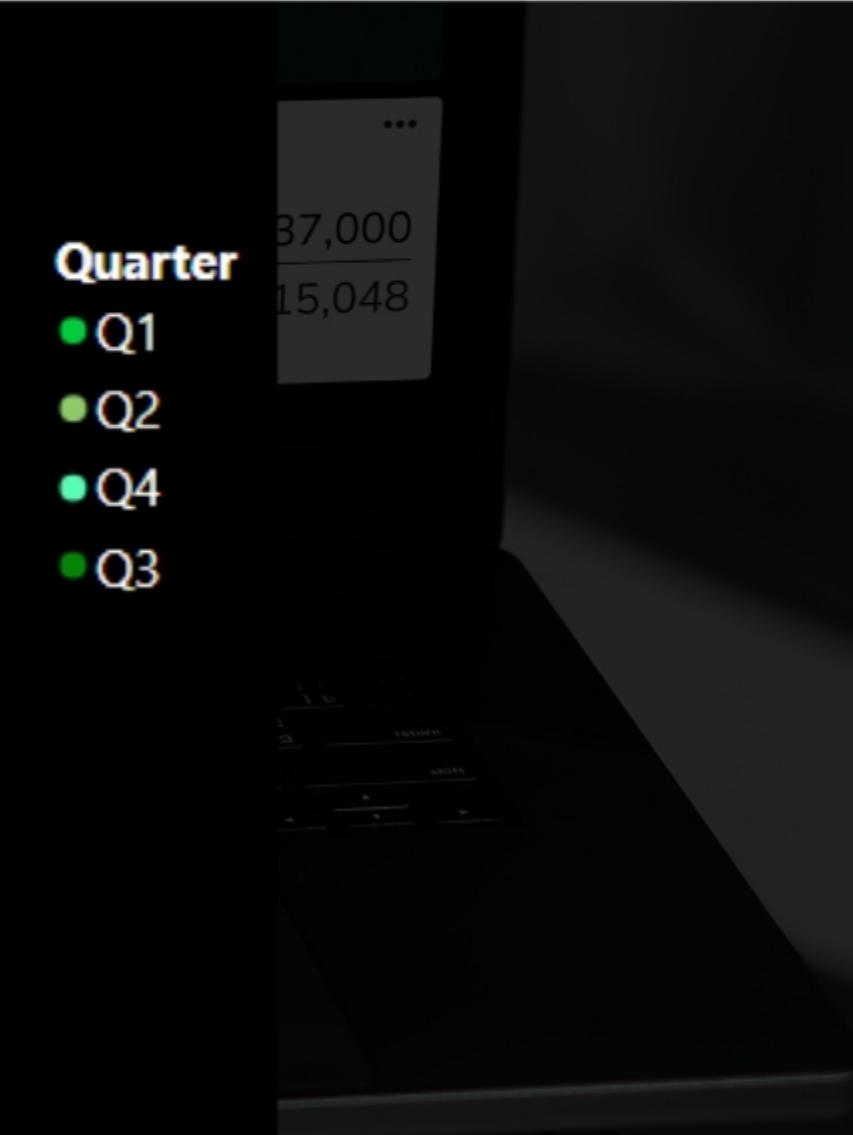
```
select
    case when month(date) in (9,10,11) then 'Q1'
        when month(date) in (12,1,2) then 'Q2'
        when month(date) in (3,4,5) then 'Q3'
        else 'Q4'
    end as Quarter,
    concat(round(sum(sold_quantity)/1000000,3),'M') as total_sold_quantity
from fact_sales_monthly where fiscal_year = 2020
group by Quarter order by total_sold_quantity desc;
```

AD-HOC REQUEST #08

RESULT:



	Quarter	total_sold_quantity
►	Q1	7.006M
	Q2	6.650M
	Q4	5.043M
	Q3	2.075M



AD-HOC REQUEST #09

WHICH CHANNEL HELPED TO BRING MORE GROSS SALES IN THE FISCAL YEAR 2021 AND THE PERCENTAGE OF CONTRIBUTION?

THE FINAL OUTPUT CONTAINS THESE FIELDS,

1.CHANNEL

2.GROSS_SALES_MLN

3.PERCENTAGE

```
WITH S AS (
    SELECT
        dc.channel,
        SUM(fgp.gross_price * fsm.sold_quantity) / 1000000 AS gross_sales
    FROM fact_gross_price fgp
    JOIN fact_sales_monthly fsm USING (product_code)
    JOIN dim_customer dc USING (customer_code)
    GROUP BY dc.channel)

SELECT
    channel,
    CONCAT(round(gross_sales), ' M') AS gross_sales_mn,
    CONCAT(ROUND(gross_sales / SUM(gross_sales) OVER () * 100, 2), '%') AS percentage
FROM S
ORDER BY gross_sales DESC;
```

AD-HOC REQUEST #09

RESULT:

Distributor 188.03M (11.3%)

Direct 257.53M (15.47%)

channel	gross_sales_mn	percentage
Retailer	2690.56 M	72.49%
Direct	601.71 M	16.21%
Distributor	419.45 M	11.30%

Retailer 1219.08M (73.23%)

AD-HOC REQUEST #10

GET THE TOP 3 PRODUCTS IN EACH DIVISION THAT HAVE A HIGH
TOTAL_SOLD_QUANTITY IN THE FISCAL_YEAR 2021?



THE FINAL OUTPUT CONTAINS THESE FIELDS,

1.DIVISION 2.PRODUCT_CODE 3. PRODUCT 4. TOTAL_SOLD_QUANTITY 5. RANK_ORDER

```
WITH ranked_products AS (
    SELECT
        division,
        product_code,
        product,
        SUM(sold_quantity) AS total_sold_quantity,
        RANK() OVER (PARTITION BY division ORDER BY SUM(sold_quantity) DESC) AS rank_order
    FROM dim_product
    JOIN fact_sales_monthly USING (product_code)
    WHERE fiscal_year = 2021
    GROUP BY division, product_code, product
)
SELECT *
FROM ranked_products
WHERE rank_order <= 3
ORDER BY division, rank_order;
```

AD-HOC REQUEST #10

RESULT:

	division	product_code	product	total_sold_quantity	rank_order
▶	N & S	A6720160103	AQ Pen Drive 2 IN 1	701373	1
	N & S	A6818160202	AQ Pen Drive DRC	688003	2
	N & S	A6819160203	AQ Pen Drive DRC	676245	3
	P & A	A2319150302	AQ Gamers Ms	428498	1
	P & A	A2520150501	AQ Maxima Ms	419865	2
	P & A	A2520150504	AQ Maxima Ms	419471	3
	PC	A4218110202	AQ Digit	17434	1
	PC	A4319110306	AQ Velocity	17280	2
	PC	A4218110208	AQ Digit	17275	3

GROUND

THE INDUSTRY'S HISTORY

WANT TO SAY

THANK YOU

FOR YOUR ATTENTION



THENNARASU M