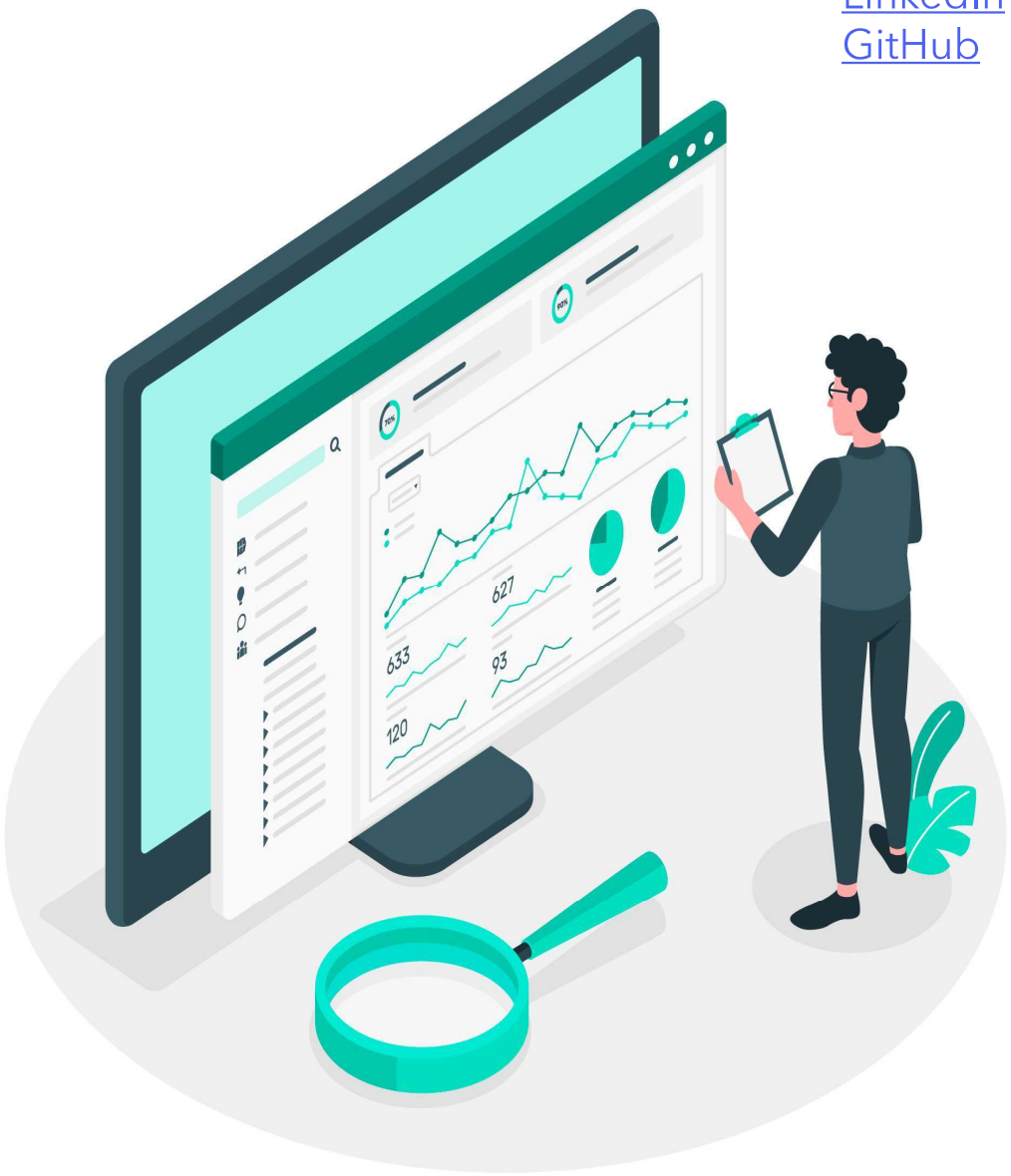
AtliQ Hardwares

CONSUMER GOODS AD-HOC INSIGHTS



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AGENDA

- Background
- Understanding AtliQs Business Operations
- Familiarizing With Input Data
- Addressing Ad-hoc Requests Through Query Results, Visualization, And Insights

BACKGROUND

AtliQ Hardwares

1

INTRODUCTION

•**Atliq Hardwares:** Leading computer hardware producer in India

•**Global Presence:** Expanded operations to other countries

•**Lack of Insights:** Management struggles to make quick and informed decisions

•**Need for Expansion:** Recognized the necessity to strengthen data analytics capabilities

•Recognizing the pivotal role of data analytics in driving competitive advantage, Atliq Hardwares is committed to bolstering its analytical capabilities to enable proactive decision-making and strategic foresight.

2

MARKET

PRODUCT LINE

PC

- DESKTOP
  - Business Laptop
  - Personal Laptop
- NOTEBOOK
  - Gaming Laptop
  - Business Laptop
  - Personal Laptop

P & A

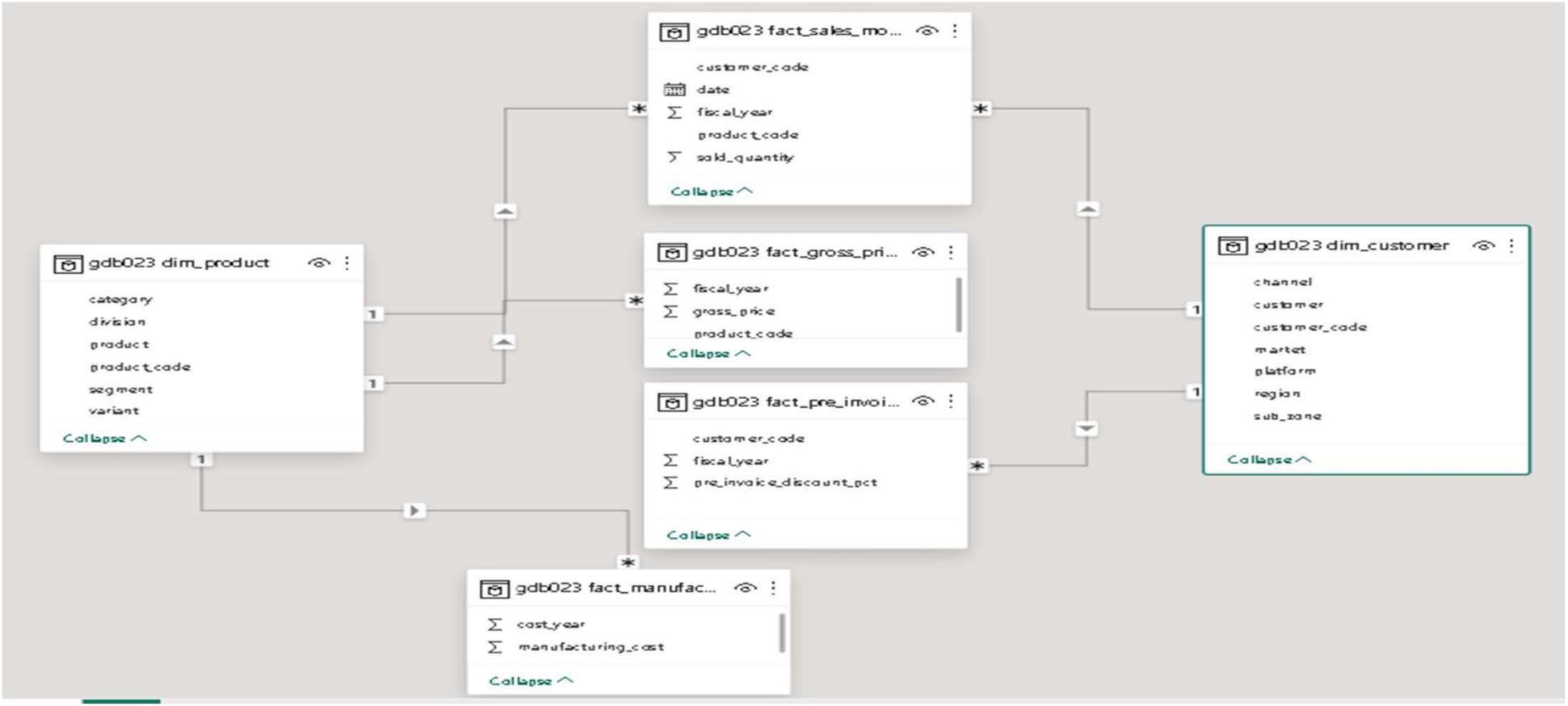
- PERIPHERALS
  - Graphic Card
  - Internal Hdd
  - Motherboard
  - Processors
- ACCESSORIES
  - Batteries
  - Keyboard
  - Mouse

N & S

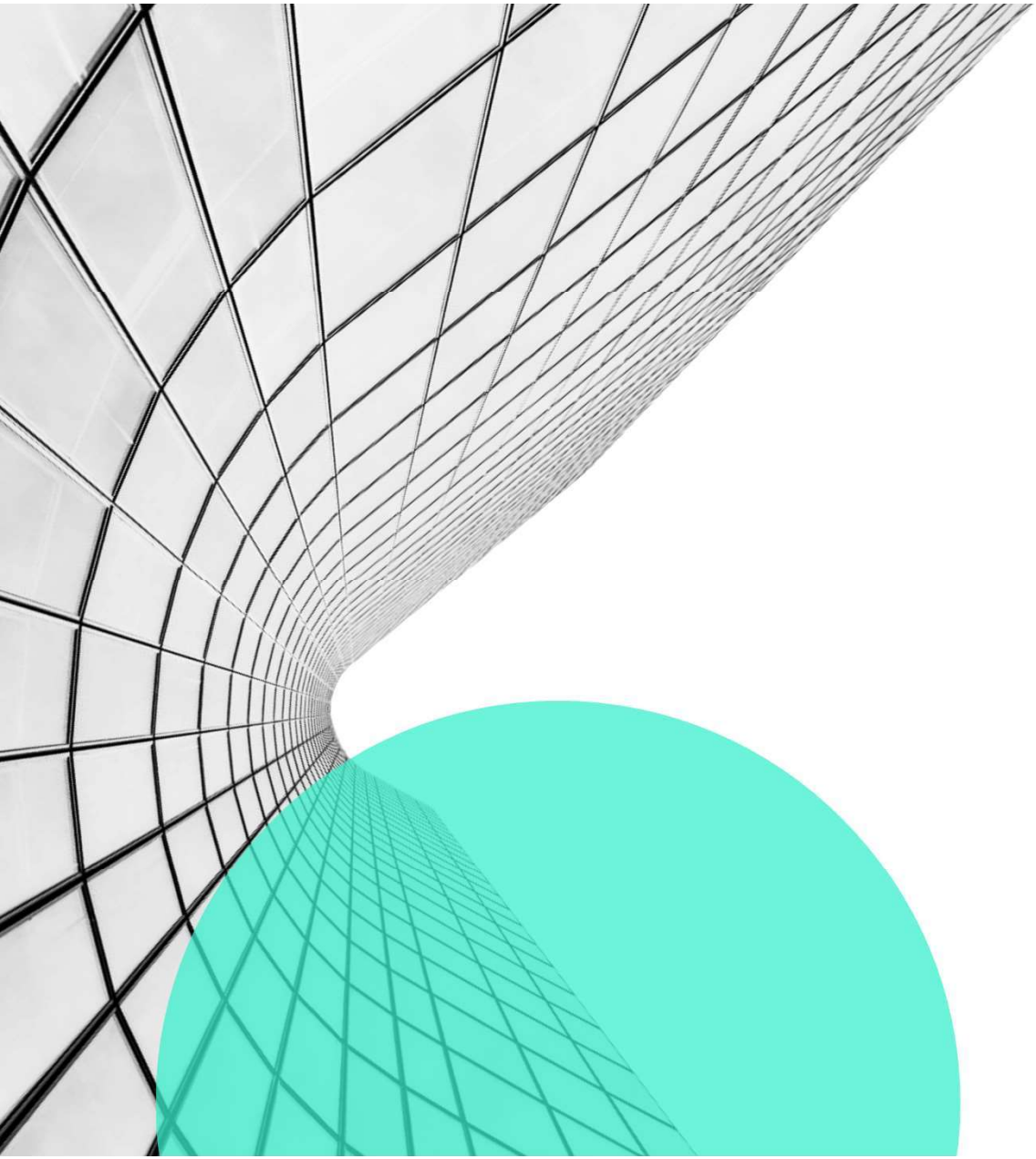
- NETWORKING
  - Wifi Extender
- STORAGE
  - External Ssd
  - Usb Flash Drives

GK1

3 FAMILIARIZING WITH INPUT DATA



Consist of sales data for FY 2020 & FY 2021



4

ADDRESSING AD-HOC REQUESTS

1

Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC regions

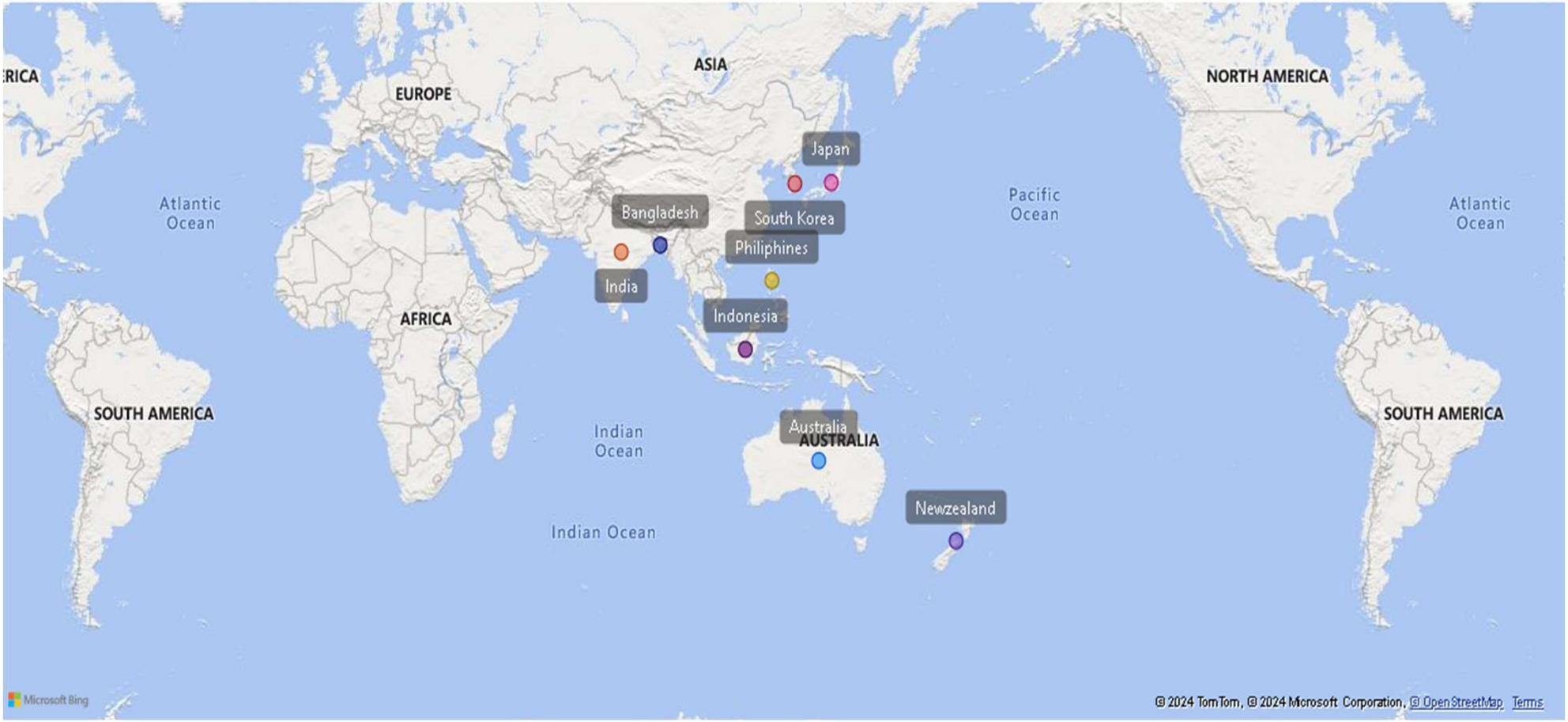
Query

```
SELECT DISTINCT market
FROM dim_customer
WHERE customer = "Atliq Exclusive" AND region = "APAC";
```

Result

market
India
Indonesia
Japan
Philiphines
South Korea
Australia
New Zealand
Bangladesh

"Atliq Exclusive" conducts its operations across the APAC region, spanning eight countries.



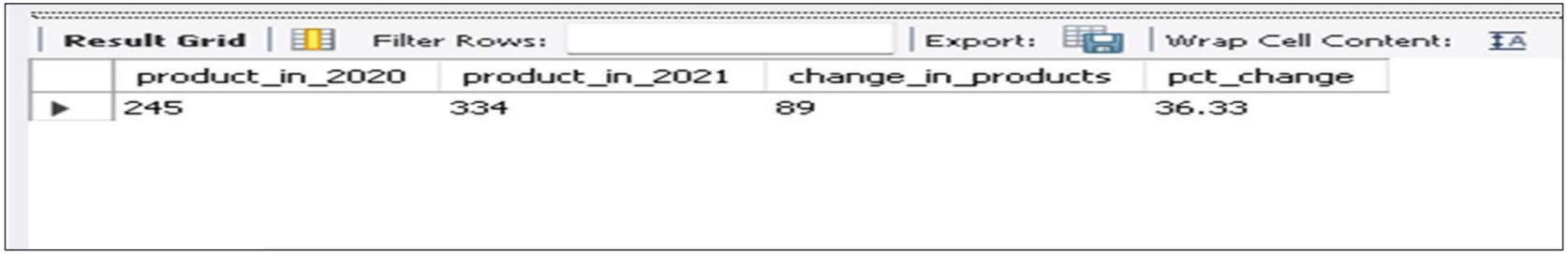
2

What is the percentage of Unique product increase in 2021 vs 2020 ?

Query

```
-- creating cte
with cte1 as(
select count(distinct(product_code)) as product_in_2020
from  fact_gross_price
where fiscal_year = 2020),  -- 245
cte2 as (
select count(distinct(product_code)) as product_in_2021
from  fact_gross_price
where fiscal_year = 2021)  -- 334
select cte1.product_in_2020,cte2.product_in_2021,
(cte2.product_in_2021-cte1.product_in_2020) as change_in_products,
round(((cte2.product_in_2021-cte1.product_in_2020)/cte1.product_in_2020*100),2) as pct_change
from cte1,cte2;
```

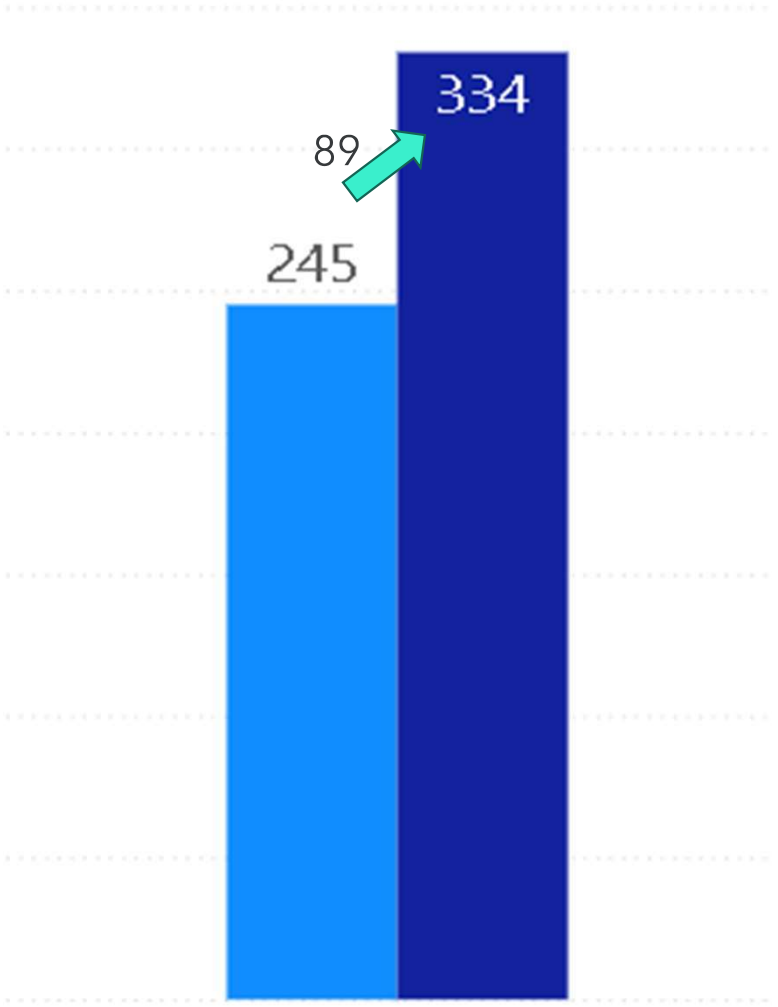
Result



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

product_in_2020	product_in_2021	change_in_products	pct_change
245	334	89	36.33

UNIQUE PRODUCT INCREASE IN 2021 VS 2020



Quantity Change

89

% Change

36.33 %

3 Provide a report with all unique product counts for each segment and sort them in descending order of product counts?

Query

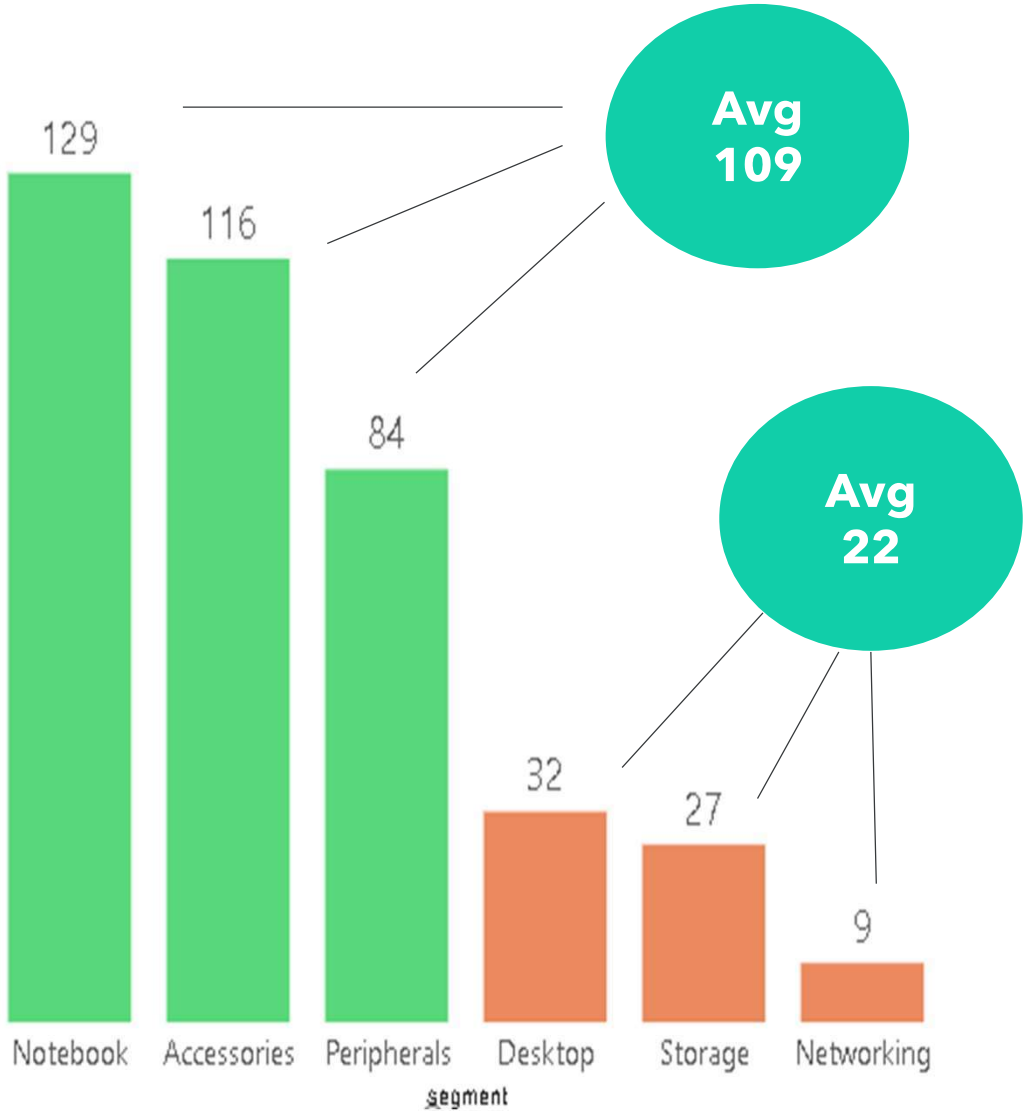
```
select segment,
       count( distinct product_code) as unique_product_count
from dim_product
group by segment
order by unique_product_count desc ;
```

Result

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

UNIQUE PRODUCT COUNT FOR EACH SEGMENT

The segments of notebooks, accessories, and peripherals show a higher diversity of unique products compared to desktops, storage, and networking, suggesting potential market focus and opportunities for growth



4

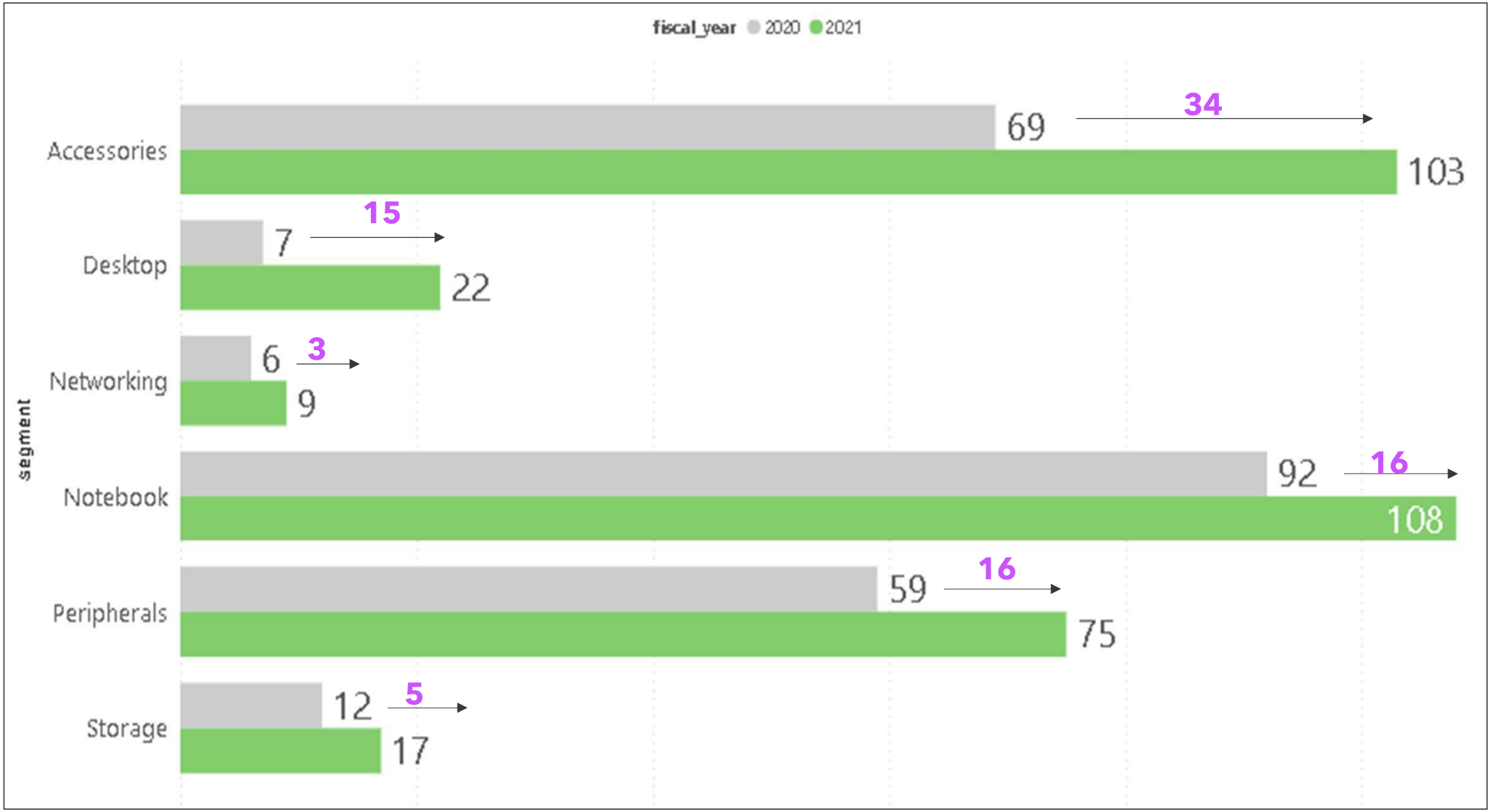
which segment had the most increase in unique products in 2021 vs 2020 ?

Query

```
WITH cte1 AS (
    SELECT
        COUNT(DISTINCT CASE WHEN s.fiscal_year = 2020 THEN s.product_code END) AS unique_product_count_2020,
        COUNT(DISTINCT CASE WHEN s.fiscal_year = 2021 THEN s.product_code END) AS unique_product_count_2021,
        p.segment
    FROM fact_sales_monthly AS s
    JOIN dim_product AS p
    ON s.product_code = p.product_code
    WHERE s.fiscal_year IN (2020, 2021)
    GROUP BY p.segment)
SELECT
    segment,
    unique_product_count_2020,
    unique_product_count_2021,
    unique_product_count_2021 - unique_product_count_2020 AS difference
FROM cte1;
```

Result

segment	unique_product_count_2020	unique_product_count_2021	difference
Accessories	69	103	34
Desktop	7	22	15
Networking	6	9	3
Notebook	92	108	16
Peripherals	59	75	16
Storage	12	17	5


fiscal_year 2020 2021
segment
Accessories
69
34
103
Desktop
7
15
22
Networking
6
3
9
Notebook
92
16
108
Peripherals
59
16
75
Storage
12
5
17

5

Get the products that have highest and lowest manufacturing costs.

Query

```
with cte as (
select m.product_code,p.product,m.manufacturing_cost,
       dense_rank() over (order by m.manufacturing_cost desc) as highest_cost,
       dense_rank() over (order by m.manufacturing_cost asc) as lowest_cost
from fact_manufacturing_cost as m
join dim_product as p
on m.product_code = p.product_code
)
select product_code, product ,manufacturing_cost
from cte
where highest_cost=1 or lowest_cost = 1;
```

Result

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

Which of our product has highest manufacturing cost ?

$ 240.53

AQ Home Allin 1 Gen 2

Which of our product has lowest manufacturing cost ?

$ 0.89

AQ master wired x 1 ms

6

Generate a report which contains the top 5 customer who received an average high pre invoice discount percentage
- for the fiscal year 2021 and in the Indian market

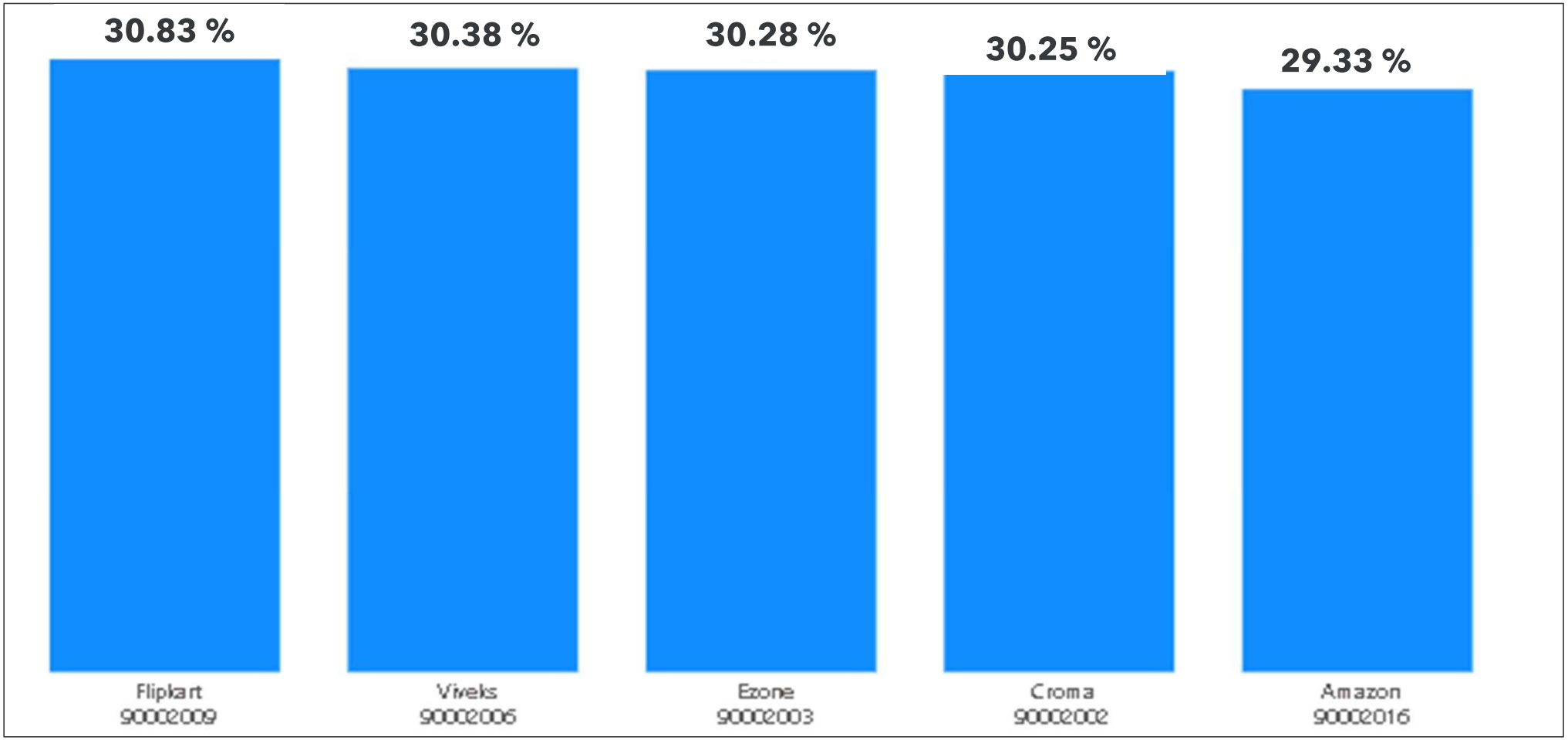
Query

```
WITH cte AS (
    SELECT c.customer_code, c.customer,
        ROUND(AVG(pid.pre_invoice_discount_pct)*100, 2) AS average_discount_percentage,
        DENSE_RANK() OVER (ORDER BY AVG(pid.pre_invoice_discount_pct) DESC) AS ranking
    FROM fact_pre_invoice_deductions AS pid
    JOIN dim_customer AS c ON pid.customer_code = c.customer_code
    WHERE c.market = 'India' AND pid.fiscal_year = 2021
    GROUP BY c.customer_code, c.customer
)
SELECT customer_code,customer, average_discount_percentage
FROM cte
WHERE ranking <= 5;
```

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

In 2021, we provided nearly identical pre-invoice discounts to our top 5 customers.



7

Get the complete report for 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

Query

```sql
WITH cte AS (
    SELECT
        MONTH(s.date) AS month_num,s.fiscal_year,
        ROUND(SUM(s.sold_quantity * gp.gross_price) / 1000000, 2) AS gross_sales_amount_millions
    FROM fact_gross_price AS gp
    JOIN fact_sales_monthly AS s
    ON s.product_code = gp.product_code
    JOIN dim_customer AS c
    ON s.customer_code = c.customer_code
    WHERE c.customer = 'Atliq Exclusive'
    GROUP BY month_num, fiscal_year
    ORDER BY fiscal_year, month_num asc
)
SELECT month_num AS 'month', fiscal_year, gross_sales_amount_millions
FROM cte;
```

Result

month	fiscal_year	gross_sales_amount_millions
1	2020	9.58
2	2020	8.08
3	2020	0.77
4	2020	0.80
5	2020	1.59
6	2020	3.43
7	2020	5.15
8	2020	5.64
9	2020	9.09
10	2020	10.38
11	2020	15.23
12	2020	9.76
1	2021	19.57
2	2021	15.99
3	2021	19.15
4	2021	11.48
5	2021	19.20
6	2021	15.46
7	2021	19.04
8	2021	11.32
9	2021	19.53
10	2021	21.02
11	2021	32.25
12	2021	20.41

High Performing Months

High Performing Months

8

In which quarter of 2020, got the maximum total sold quantity?

Query

```
WITH cte AS (
  SELECT date,month(date_add(date,interval 4 month)) AS period, fiscal_year,sold_quantity
FROM fact_sales_monthly
)
SELECT CASE
   when period/3 <= 1 then "Q1"
   when period/3 <= 2 and period/3 > 1 then "Q2"
   when period/3 <=3 and period/3 > 2 then "Q3"
   when period/3 <=4 and period/3 > 3 then "Q4" END quarter,
 round(sum(sold_quantity)/1000000,2) as total_sold_quanity_in_millions FROM cte
WHERE fiscal_year = 2020
GROUP BY quarter
ORDER BY total_sold_quanity_in_millions DESC ;
-- ------------------------------------------------------------------------------
```

Result

quarter	total_sold_quanity_in_millions
Q1	7.01
Q2	6.65
Q4	5.04
Q3	2.08

Max qty sold in Q1

9

Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?

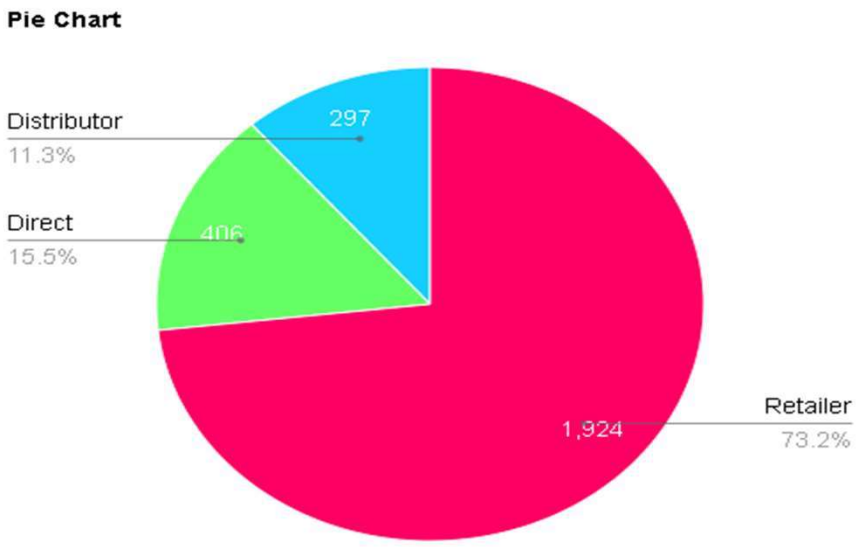
Query

```
WITH cte AS (
    SELECT c.channel,sum(s.sold_quantity * g.gross_price) AS total_sales
    FROM fact_sales_monthly s
    JOIN fact_gross_price g
    ON s.product_code = g.product_code
    JOIN dim_customer c
    ON s.customer_code = c.customer_code
    WHERE s.fiscal_year= 2021
    GROUP BY c.channel
    ORDER BY total_sales DESC
)
SELECT
  channel,
  round(total_sales/1000000,2) AS gross_sales_in_millions,
  round(total_sales/(sum(total_sales) OVER())*100,2) AS percentage
FROM cte ;
```

Result

channel	gross_sales_in_millions	percentage
Retailer	1924.17	73.22
Direct	406.69	15.47
Distributor	297.18	11.31

- Retailor sales dominate with 73.2% of total sales, indicating their pivotal role.
- Direct sales contribute significantly at 16.5 %, while Distributor sales, though lower at 11.3 %, still represent a notable share.



All the values are in millions

10

Get the Top 3 products in each division that have a high total sold quantity in the fiscal_year 2021

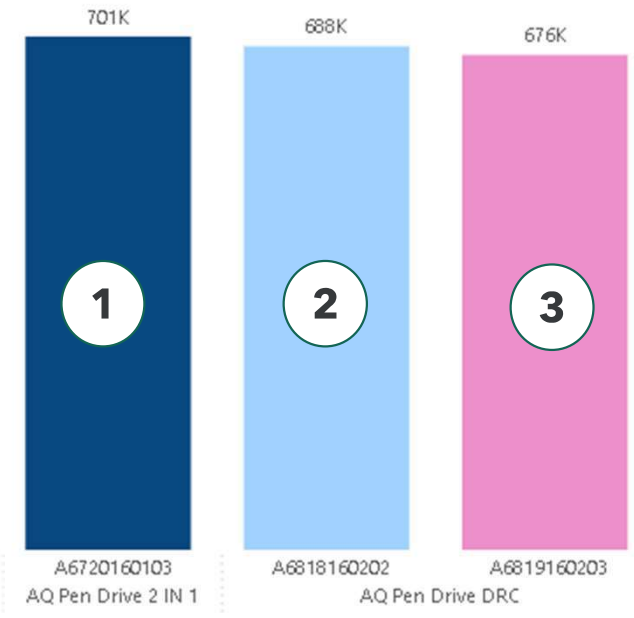
Query

```sql
WITH RankedProducts AS (
    SELECT division, product_code, product, total_sold_quantity,
        ROW_NUMBER() OVER (PARTITION BY division ORDER BY total_sold_quantity DESC) AS rank_order
    FROM (
        SELECT p.division, s.product_code, p.product, SUM(s.sold_quantity) AS total_sold_quantity
        FROM dim_product AS p
        JOIN fact_sales_monthly AS s
        ON s.product_code = p.product_code
        WHERE s.fiscal_year = 2021
        GROUP BY p.division, s.product_code, p.product
    ) AS TotalSoldQuantityByProduct
)
SELECT division, product_code, product, total_sold_quantity, rank_order
FROM RankedProducts
WHERE rank_order <= 3;
```

Result

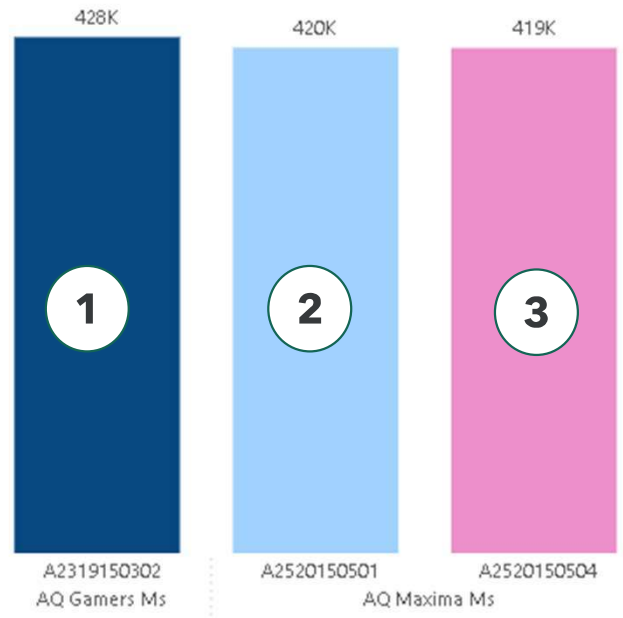
division	product_code	product	total_sold_quantity	rank_order
N & S	A6720160103	AQ Pen Drive 2 IN 1	701373	1
N & S	A6818160202	AQ Pen Drive DRC	688003	2
N & S	A6819160203	AQ Pen Drive DRC	676245	3
P & A	A2319150302	AQ Gamers Ms	428498	1
P & A	A2520150501	AQ Maxima Ms	419865	2
P & A	A2520150504	AQ Maxima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

The top 3 selling products in the N & S divisions are Pen drives, collectively contributing **20 lakhs** in sold quantity.



N & S

The top 3 selling products in the P & A divisions mouse, collectively contributing **12 lakhs** in sold quantity.

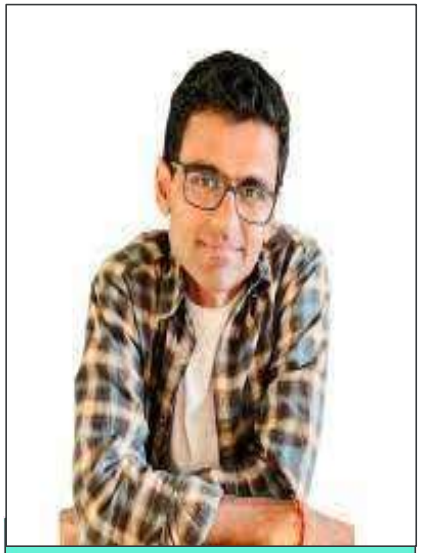


P & A

The top 3 selling products in the PC divisions are Personal Computers, collectively contributing **51 Thousands** in sold quantity.

PC

THANK YOU



Dhaval Patel

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Hemanand Vadivel

Co-Founder - Codebasics

THANK YOU

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