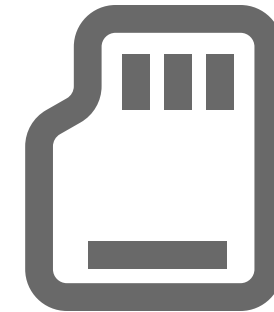
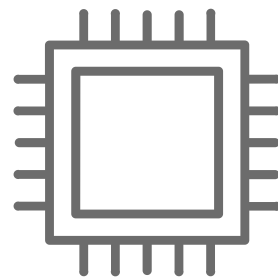
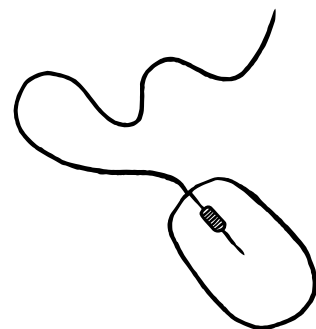


AD-HOC INSIGHTS

consumer goods 

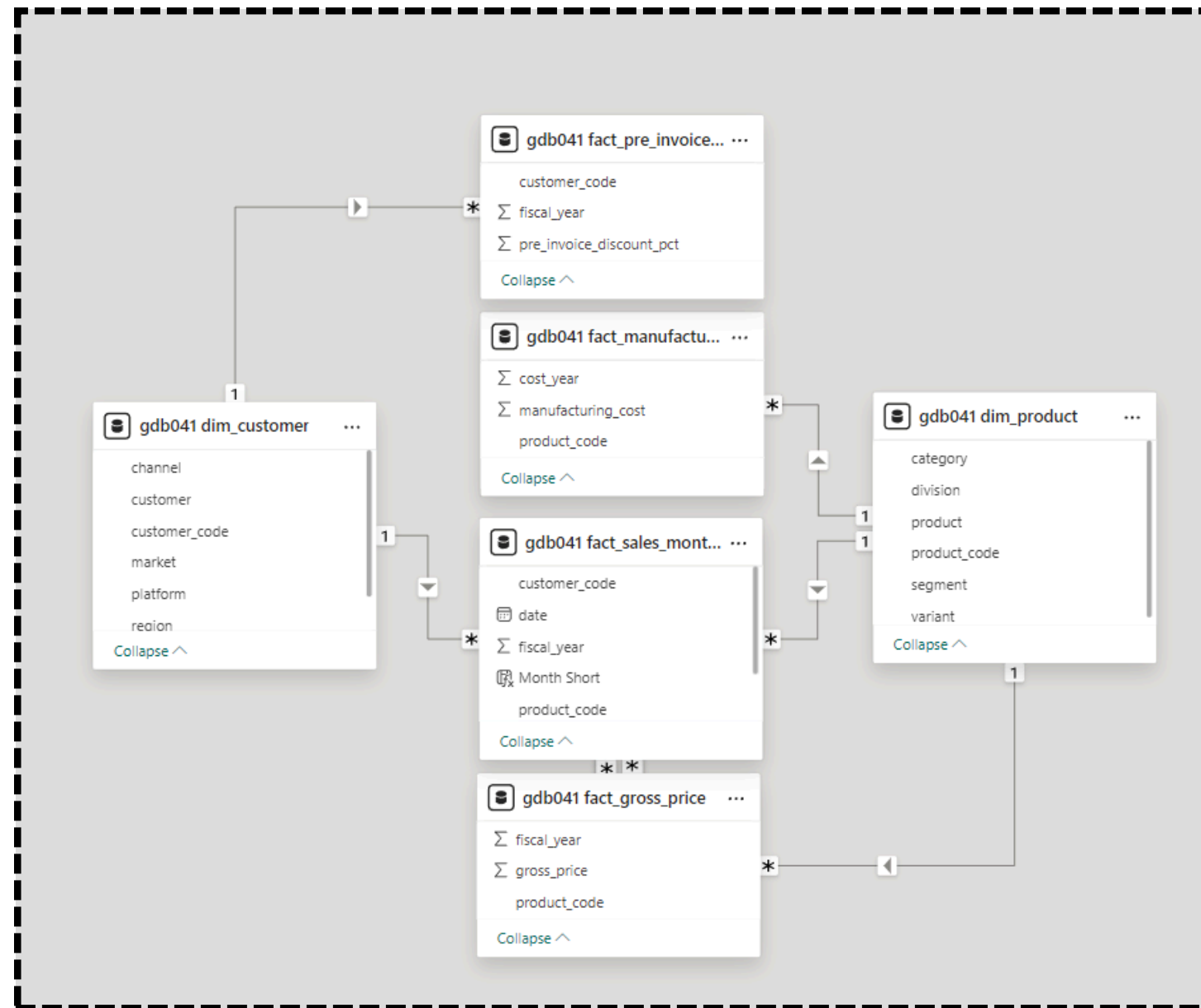
Created by
Manorma



ABOUT THIS CHALLENGE:

- 1 **AtliQ Hardware** is an Indian Computer Manufacturer Company with a global presence
- 2 the management noticed that they do not get enough insights to make quick and smart data-informed decisions , so they decide to expand their data analytics team by adding junior data analysts
- 3 Now **Tony Sharma** ,Data analytics director wants to conduct a SQL challenge to evaluate candidates tech and soft skills
- 4 He prepares a list of 10 Ad-Hoc requests for this challenge

DATA TABLES AND AD-HOC REQUESTS



Codebasics SQL Challenge

Requests:

1. Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.
2. What is the percentage of unique product increase in 2021 vs. 2020? The final output contains these fields,
unique_products_2020
unique_products_2021
percentage_chg
3. 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,
segment
product_count
4. Follow-up: Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields,
segment
product_count_2020
product_count_2021
difference
5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields,
product_code
product
manufacturing_cost
6. 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,
customer_code
customer
average_discount_percentage
7. 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:
Month
Year
Gross sales Amount
8. In which quarter of 2020, got the maximum total_sold_quantity? The final output contains these fields sorted by the total_sold_quantity,
Quarter
total_sold_quantity
9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? The final output contains these fields,
channel
gross_sales_min
percentage
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,
division
product_code
product
total_sold_quantity
rank_order

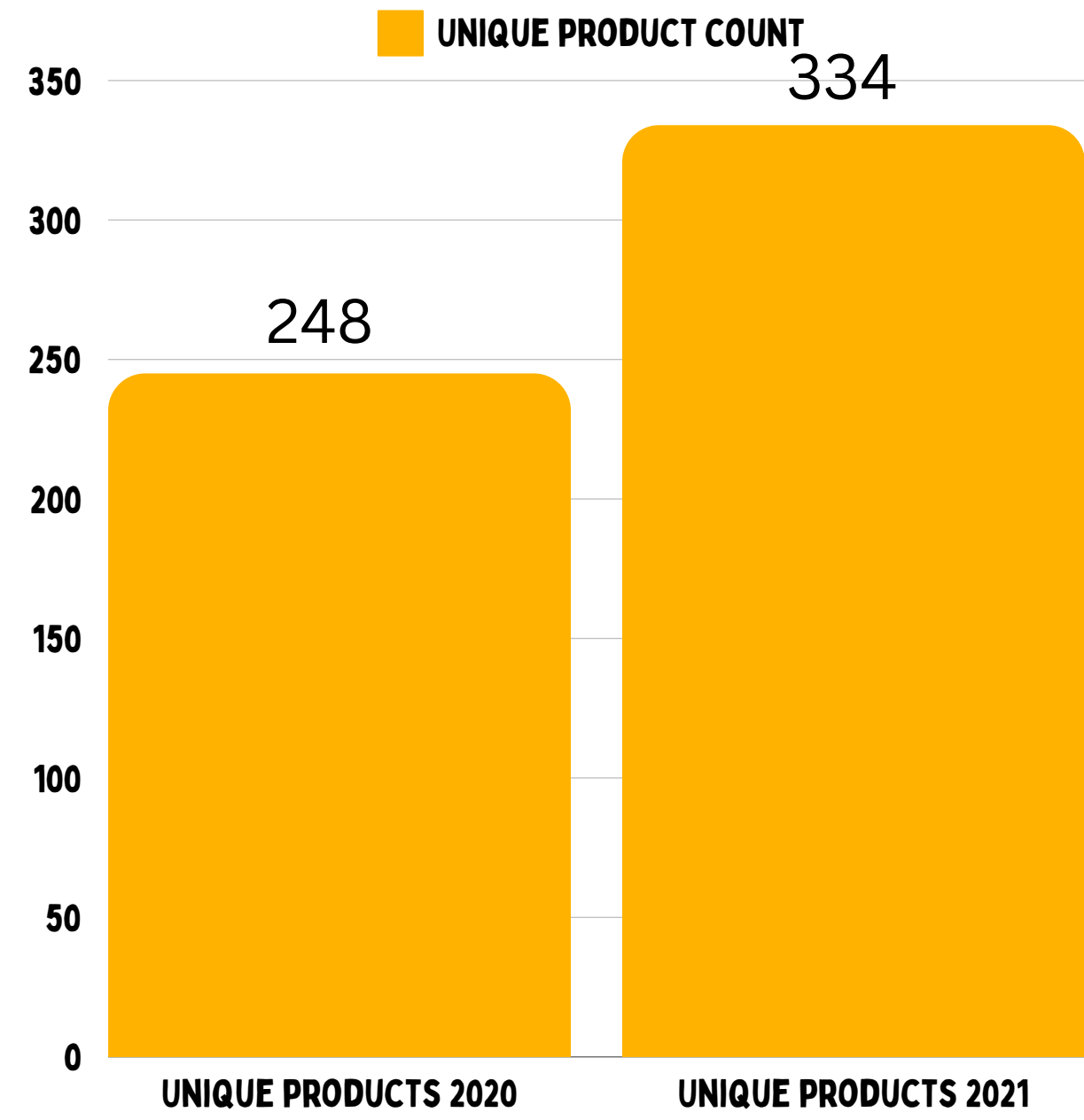
1. Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.

market
India
Indonesia
Japan
Philippines
South Korea
Australia
Newzealand
Bangladesh



2. What is the percentage of unique product increase in 2021 vs. 2020? The final output contains these fields,
unique_products_2020
unique_products_2021
percentage_chg

unique_products_2020	unique_products_2021	percentage_chg
245	334	36.33

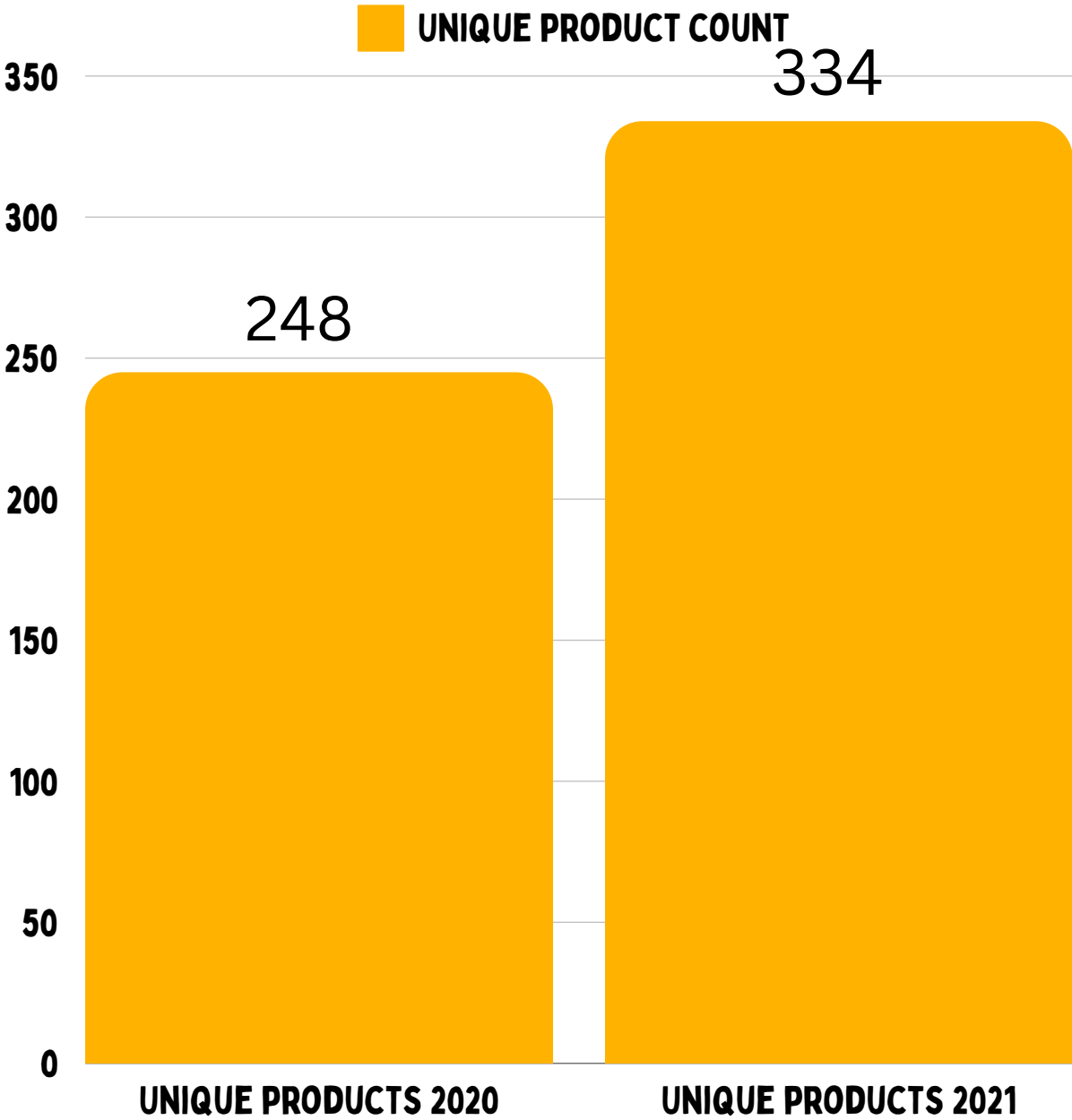


2. What is the percentage of unique product increase in 2021 vs. 2020? The final output contains these fields,
unique_products_2020
unique_products_2021
percentage_chg

unique_products_2020	unique_products_2021	percentage_chg
245	334	36.33

Insights:

company is introducing new products frequently which shows ,positioning of company in market has increased in 2021 from 2020

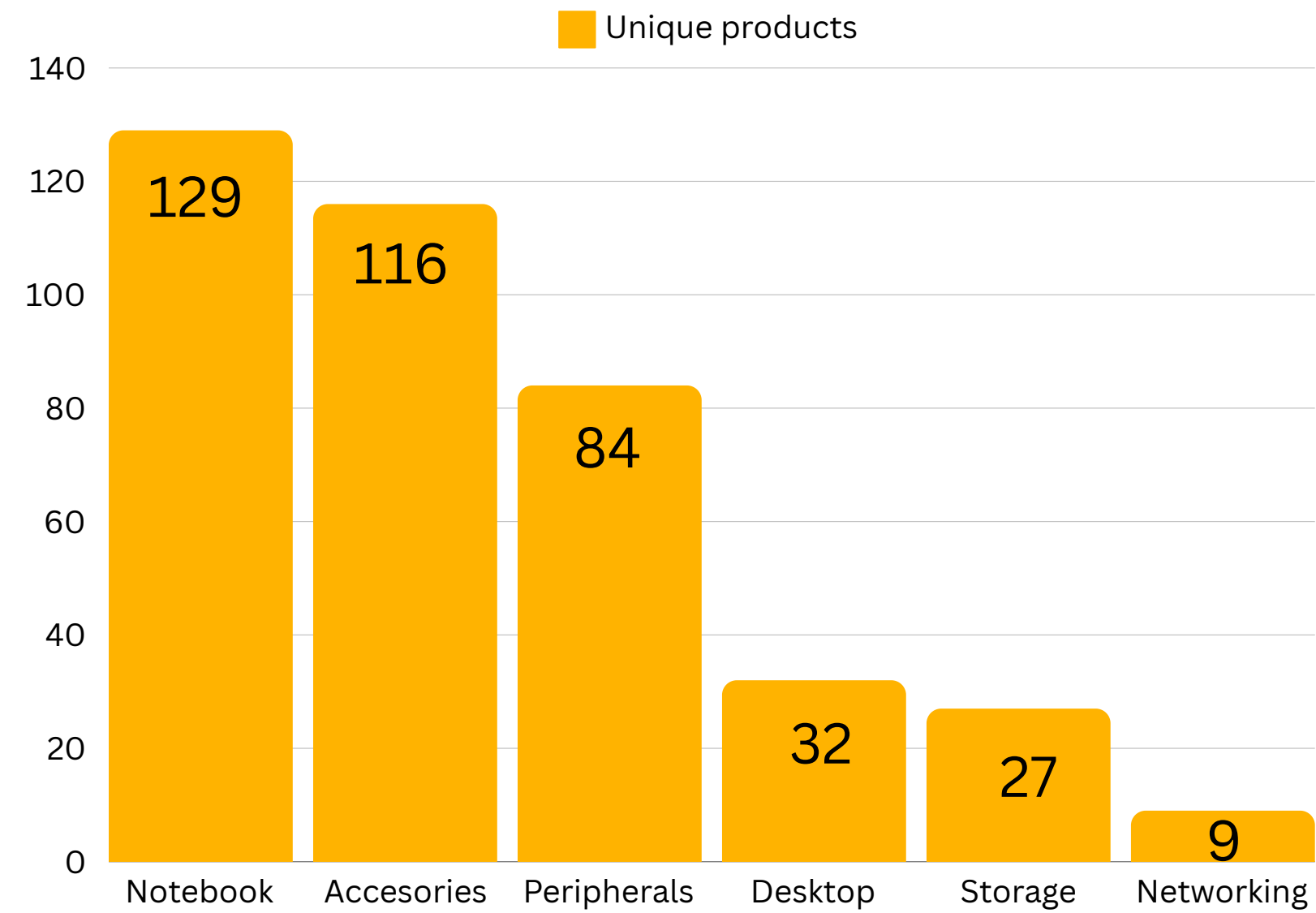


3. Provide a report with all the unique product counts for each segment and sort them in descending order of product counts. The final output contains 2 fields,

segment

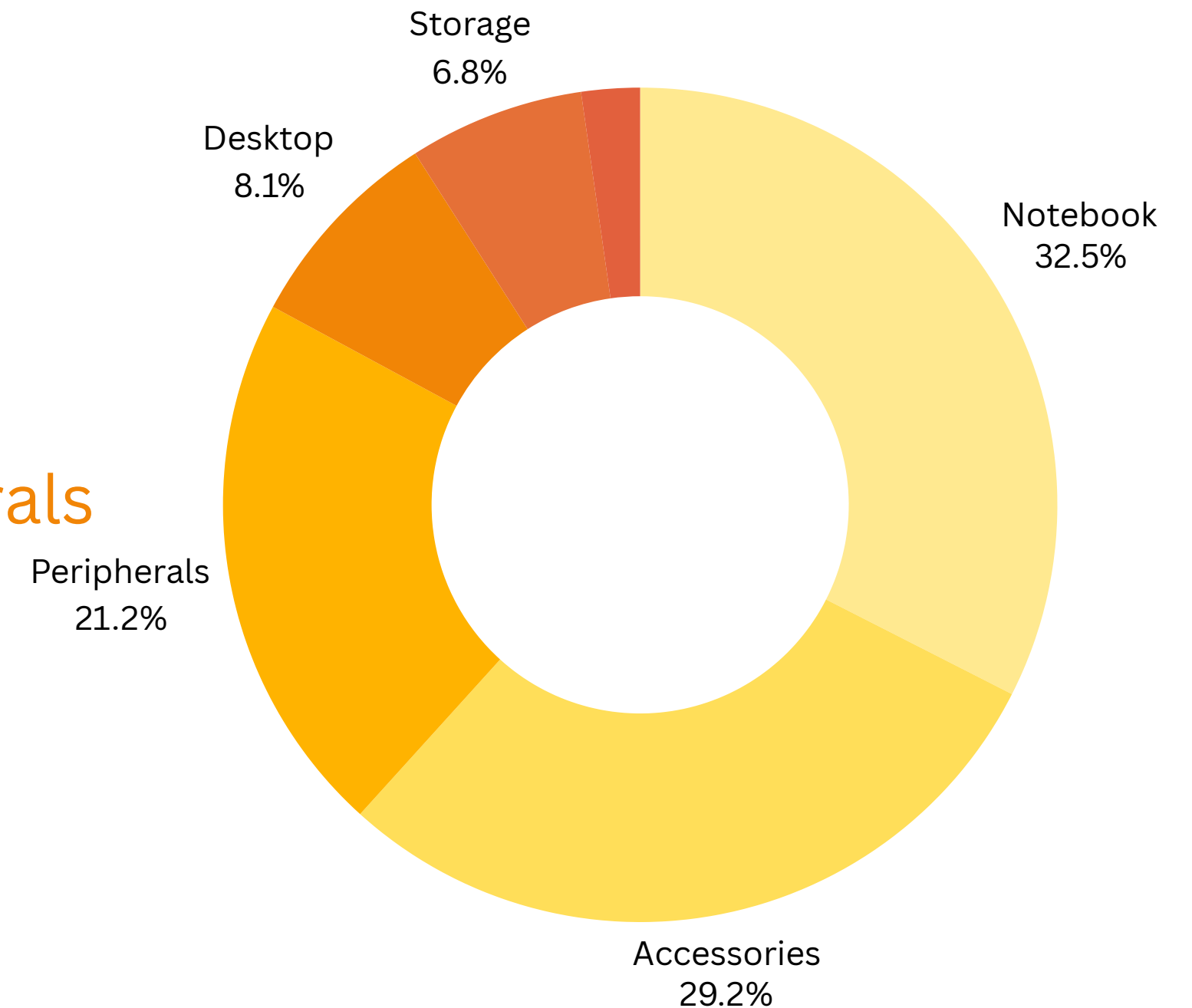
product_count

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



Insights:

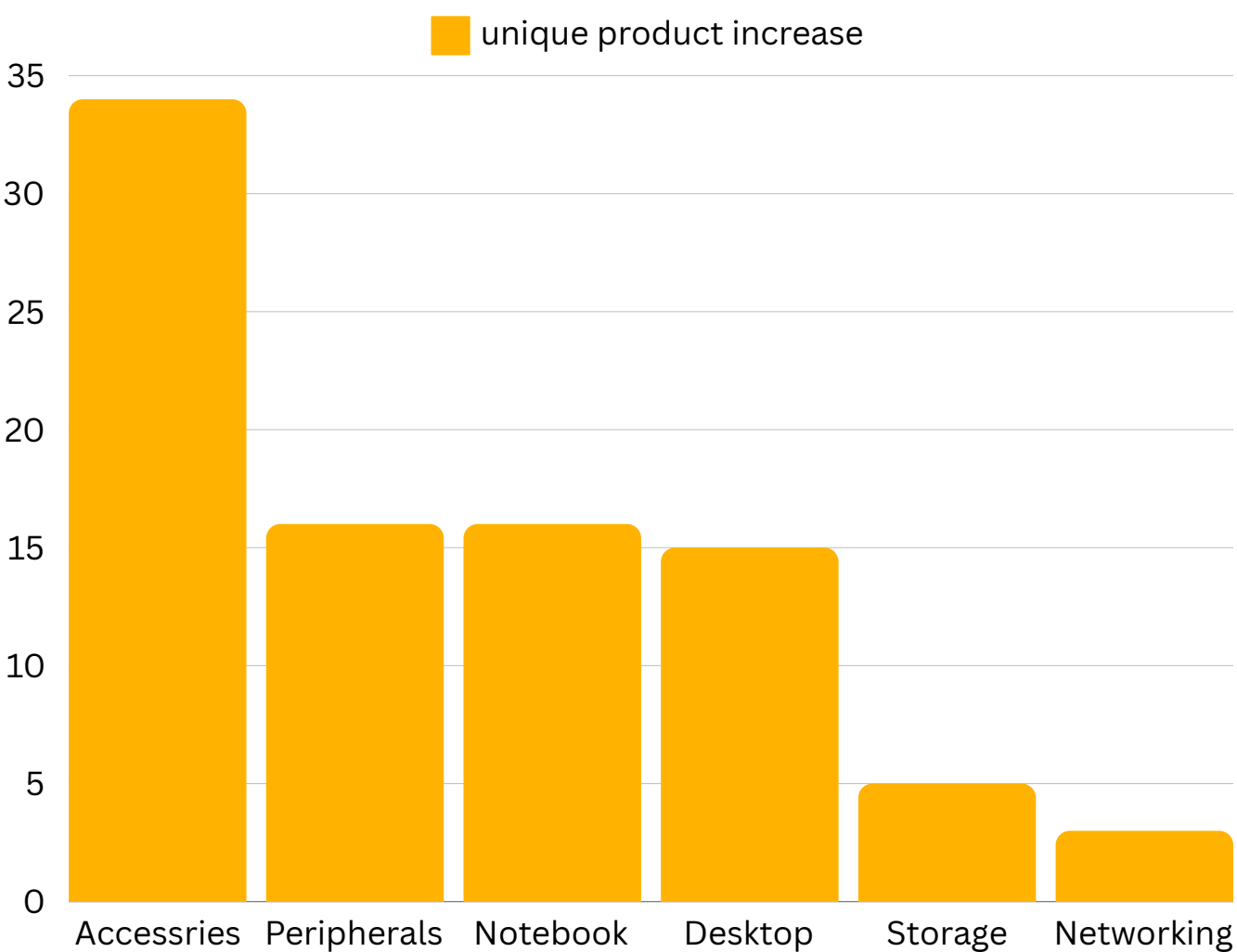
- segments Notebook has highest 32.5% and Networking has least 2.3% unique products
- segments Notebook ,Accesories and Peripherals combined has 82.9% of total products
- Notebook,Accesories and Peripherals have bigger market than Desktop,Storage and networking



4. Follow-up: Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields,

segment
product_count_2020
product_count_2021
difference

segment	product_count_2021	product_count_2020	difference
Accessories	103	69	34
Peripherals	75	59	16
Notebook	108	92	16
Desktop	22	7	15
Storage	17	12	5
Networking	9	6	3



Insights:

Accessories has most increase in unique products in 2021 from 2020

5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields,

product_code

product

manufacturing_cost

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

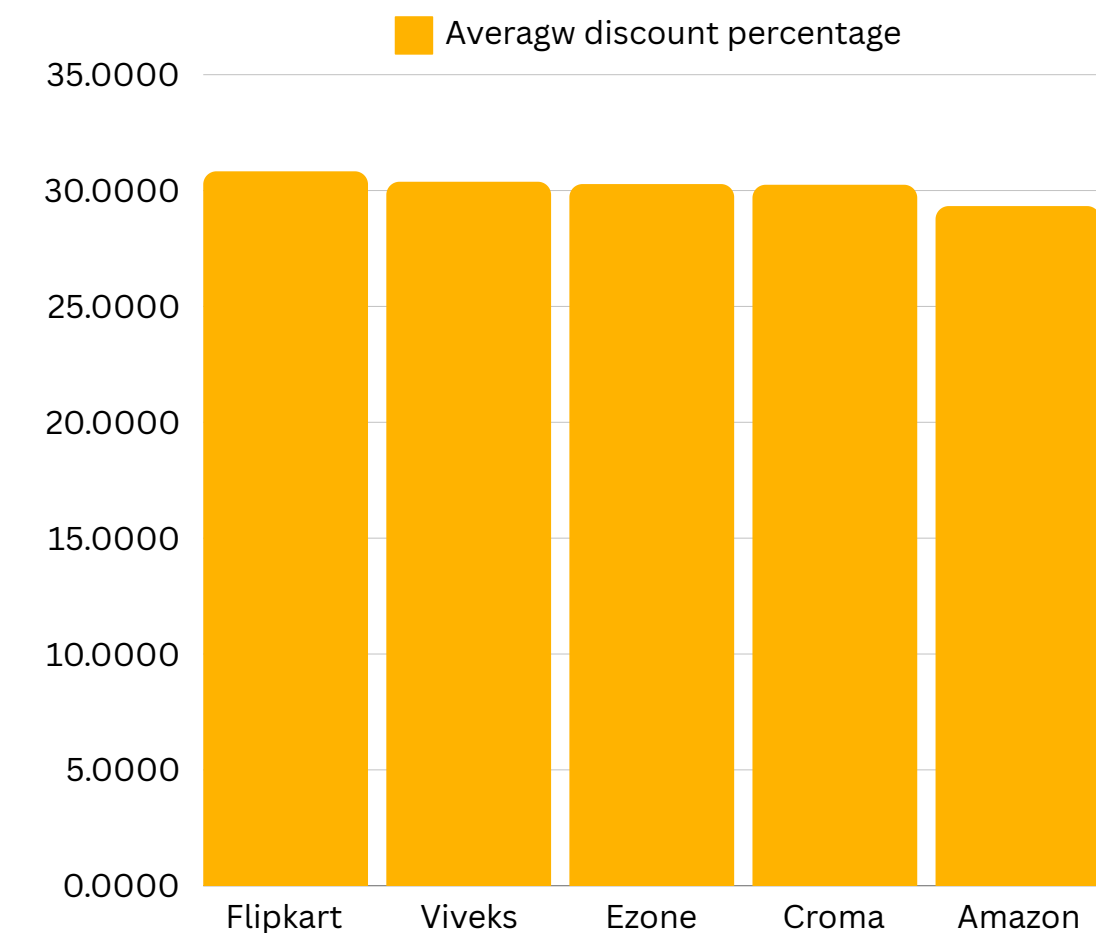
Insights:

AQ home Alin 1 gen 2 and AQ Master wired x1 Ms has the highest and lowest manufacturing cost respectively

6. 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,

customer_code
customer
average_discount_percentage

customer_code	customer	Average_discount_percentage
90002009	Flipkart	0.3083
90002006	Viveks	0.3038
90002003	Ezone	0.3028
90002002	Croma	0.3025
90002016	Amazon	0.2933



Insights:

- The largest average pre-invoice discount was given to Flipkart
- The least average pre-invoice discount was given to Amazon.

7. 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:

Month
Year
Gross sales Amount

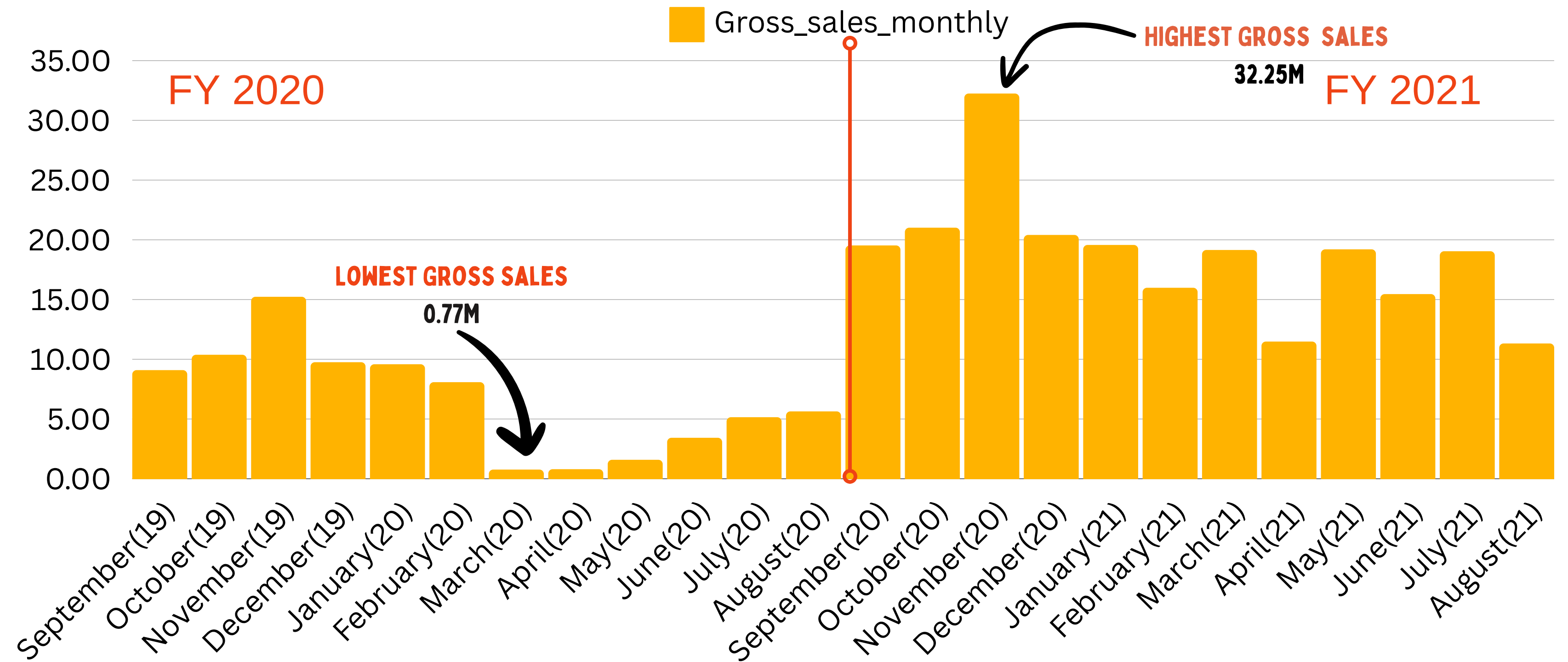
Gross_sales_monthly	Month	Year
9092670.3392	September	2019
10378637.5961	October	2019
15231894.9669	November	2019
9755795.0577	December	2019
9584951.9393	January	2020
8083995.5479	February	2020
766976.4531	March	2020
800071.9543	April	2020
1586964.4768	May	2020
3429736.5712	June	2020
5151815.4020	July	2020
5638281.8287	August	2020
19530271.3028	September	2020
21016218.2095	October	2020
32247289.7946	November	2020
20409063.1769	December	2020
19570701.7102	January	2021
15986603.8883	February	2021
19149624.9239	March	2021
11483530.3032	April	2021
19204309.4095	May	2021
15457579.6626	June	2021
19044968.8164	July	2021
11324548.3409	August	2021

FY 2020

FY 2021

Insights:

- The lowest and highest Gross sales total for both fiscal years is in March (2020) and November (2020) respectively
- 73.8% of the total Gross sales figure is in FY 2021.



8. In which **quarter of 2020**, got the **maximum total_sold_quantity**? The final output contains these fields sorted by the total_sold_quantity,

Quarter

total_sold_quantity

FY 2020

Quarter	total_sold_quantity ▾ 1
1	7005619
2	6649642
4	5042541
3	2075087

Quarters of 2020

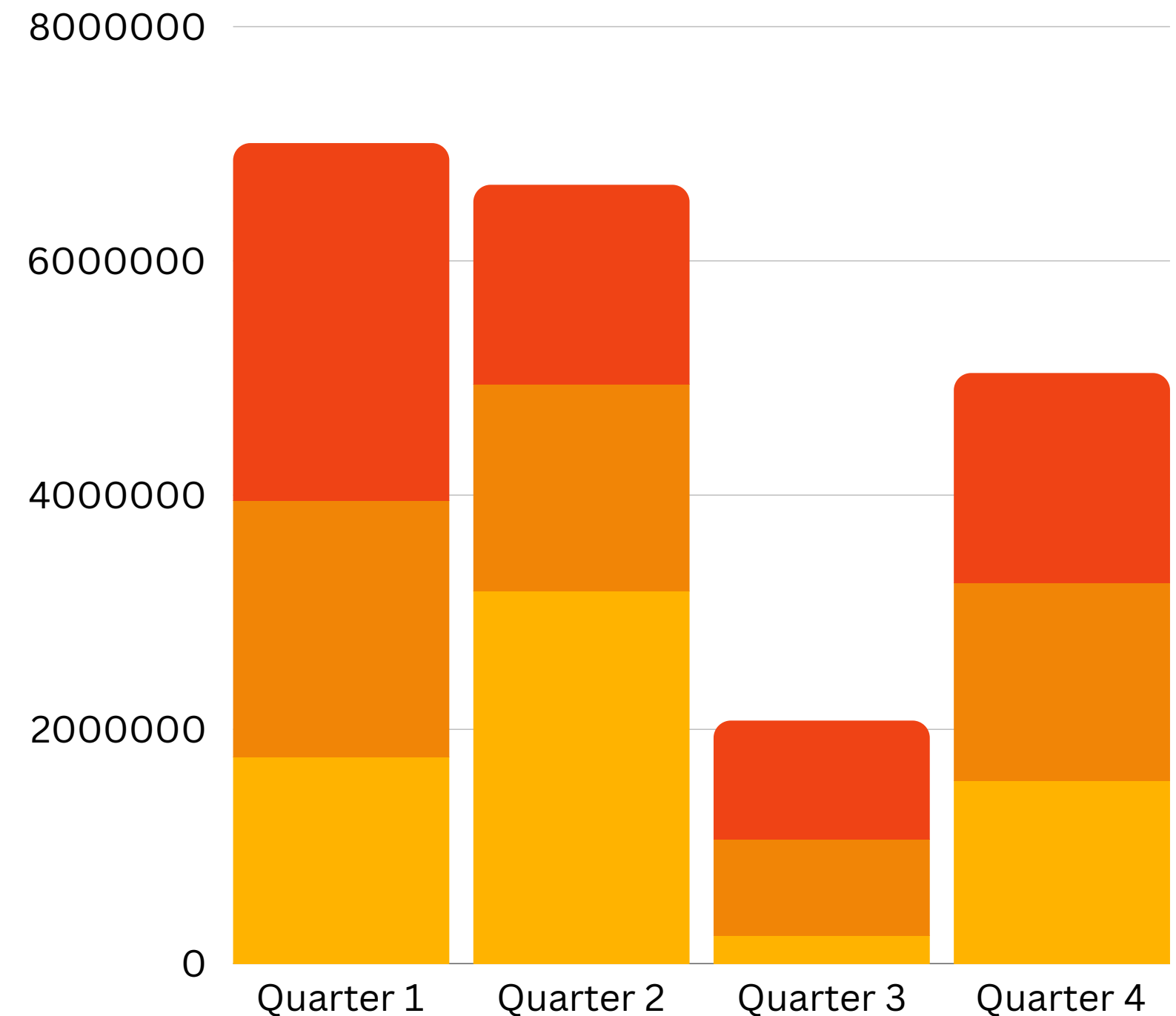
Q1	Sep 19	Oct 19	Nov 19
Q2	Dec 19	Jan 20	Feb 20
Q3	Mar 20	Apr 20	May 20
Q4	Jun 20	Jul 20	Aug 20

8. In which **quarter of 2020**, got the **maximum total_sold_quantity**? The final output contains these fields sorted by the total_sold_quantity,

Quarter
total_sold_quantity

Insights:

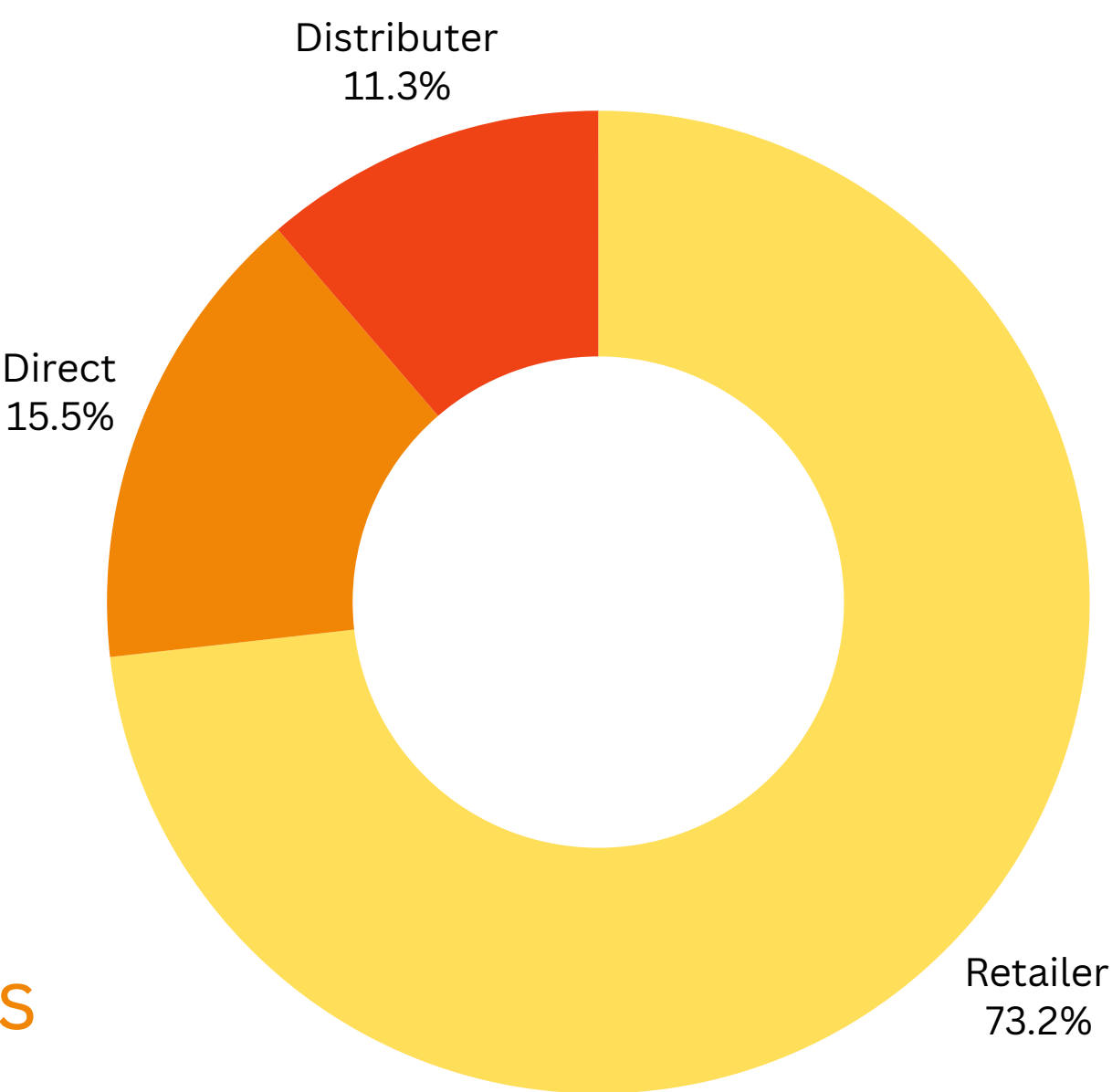
- **quarter 1 (Sep 19, Oct 19, Nov 19)** marked the highest total sold quantity
- Whereas **quarter 3 (Mar 20, Apr 20 , May 20)** marked the least total sold quantity



9. Which channel helped to bring more **gross sales** in the **fiscal year 2021** and the **percentage** of contribution? The final output contains these fields,

channel
gross_sales_mln
percentage

channel	gross_sales_mln(M)	percentage
Retailer	1924.17	73.22
Direct	406.69	15.47
Distributor	297.18	11.31



Insights:

- channel Retailer helped to bring most gross sales (73.2% of total)in FY 2021
- channel Distributer helped bring least gross sales only 11.3% of total

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,

division
product_code
product
total_sold_quantity
rank_order

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

- In division **N & S**

- 1.AQ Pen Drive 2 IN [Premium]
- 2.AQ Pen Drive DRC [Plus]
3. AQ DRC [Premium]

- In division **PC**

- 1.AQ Digit [Standard Blue]
- 2.AQ Velocity [Plus Red]
3. AQ Digit [Premium misty Green]

- In division **P & A**

- 1.AQ Gamers Ms [Standard 2]
- 2.AQ Maxima Ms [Standard 1]
3. AQ Maxima Ms[Plus 2]

Insights:

Every division has a product with **different variants** that appears **twice** in the top three products by division list.

THANK YOU