



Atlique Hardware

Consumer Goods Ad-Hoc Insights



SQL Project Challenge





Atlique Hardware

**"ATLIQUE HARDWARES
IS ONE OF THE LEADING
COMPUTER HARDWARES
PRODUCERS IN INDIA & WELL
EXPANDED IN OTHER
COUNTRIES TOO"**

**CONSUMER GOODS
A CODE BASICS
PROJECT**

Agenda

Company

Atlique Hardware- One of the leading hardware products in India

Background

The management notices that the company do not get enough insights to make smart decisions.

Problem

There are 10 Ad-Hoc requests for which company needs insights.

Approach

Run SQL Query to aswer these requests and visualize them with Power Bi to get the insights out.

DATA PROVIDED

fact_gross_price **3**

4 **fact_manufacturing_cost**

dim_product **2**

Tables in SQL
Script

5 **fact_pre_invoice_deductions**

dim_customer **1**

6 **fact_sales_monthly**

REQUESTS- 1

- 1** Provide the list of markets in which customer "Atliq Exclusive" operates its buisness in APAC region.
For this request we are using dim_customer table

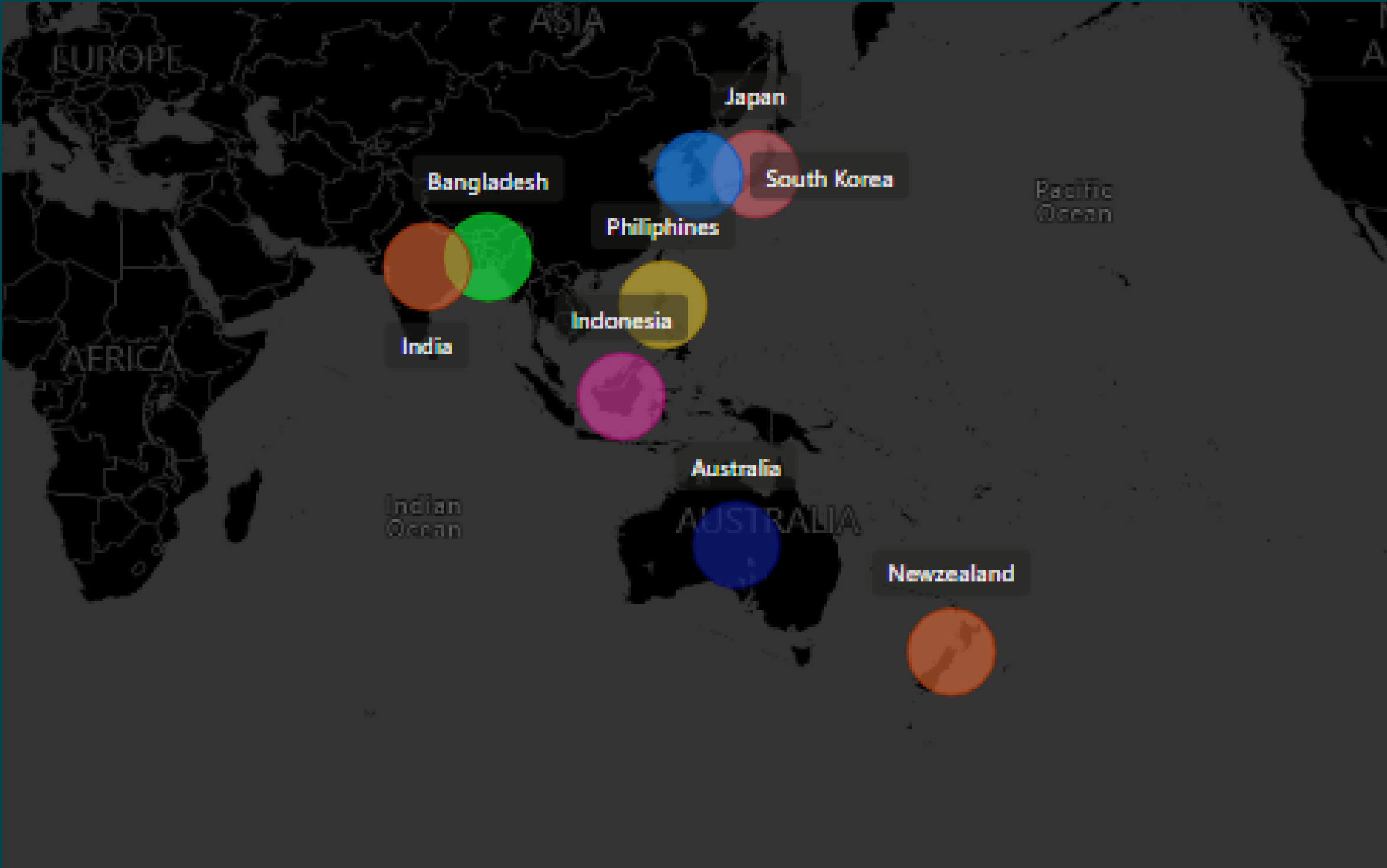
Columns present in dim_customer

- 1.customer_code
2. customer
3. platform
4. channel
5. market
6. sub_zone
7. region

OUTPUT

OUTPUT TABLE

customer	Market	region
Atliq Exclusive	South Korea	APAC
Atliq Exclusive	Philiphines	APAC
Atliq Exclusive	Newzealand	APAC
Atliq Exclusive	Japan	APAC
Atliq Exclusive	Indonesia	APAC
Atliq Exclusive	India	APAC
Atliq Exclusive	India	APAC
Atliq Exclusive	Bangladesh	APAC
Atliq Exclusive	Australia	APAC



REQUESTS- 2

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.

For this request we are using dim_customer table and fact_sales_monthly table

dim_customer

- 1.customer_code
2. customer
3. platform
4. channel
5. market
6. sub_zone
7. region

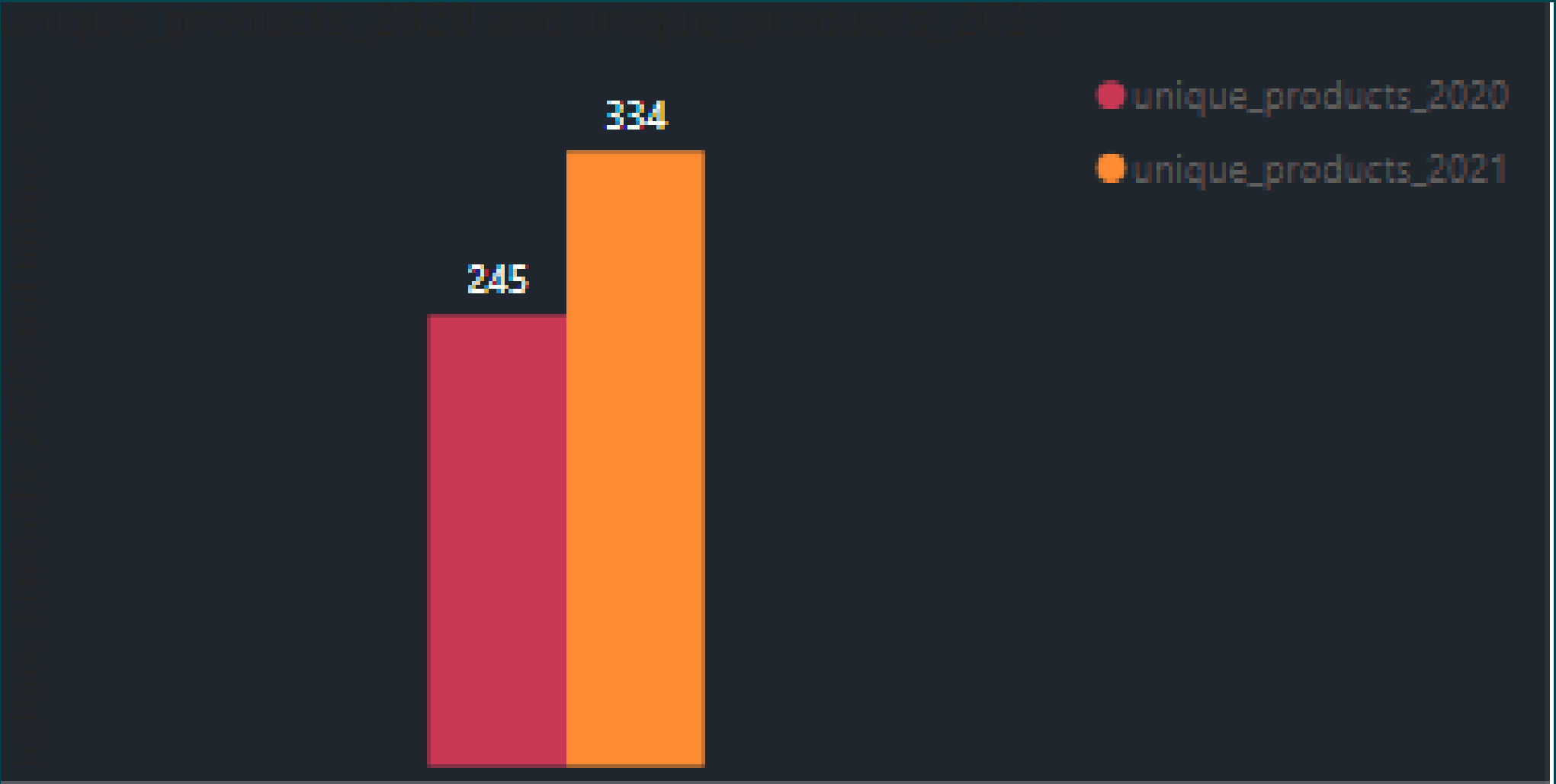
fact_sales_monthly

- 1.data
2. product_code
3. customer_code
4. sold_quantity
5. fiscal_year

OUTPUT

OUTPUT TABLE

	unique_products_2020	unique_products_2021	percentage_chg
►	245	334	36.33%



REQUESTS- 3

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.

For this request we are using dim_product table

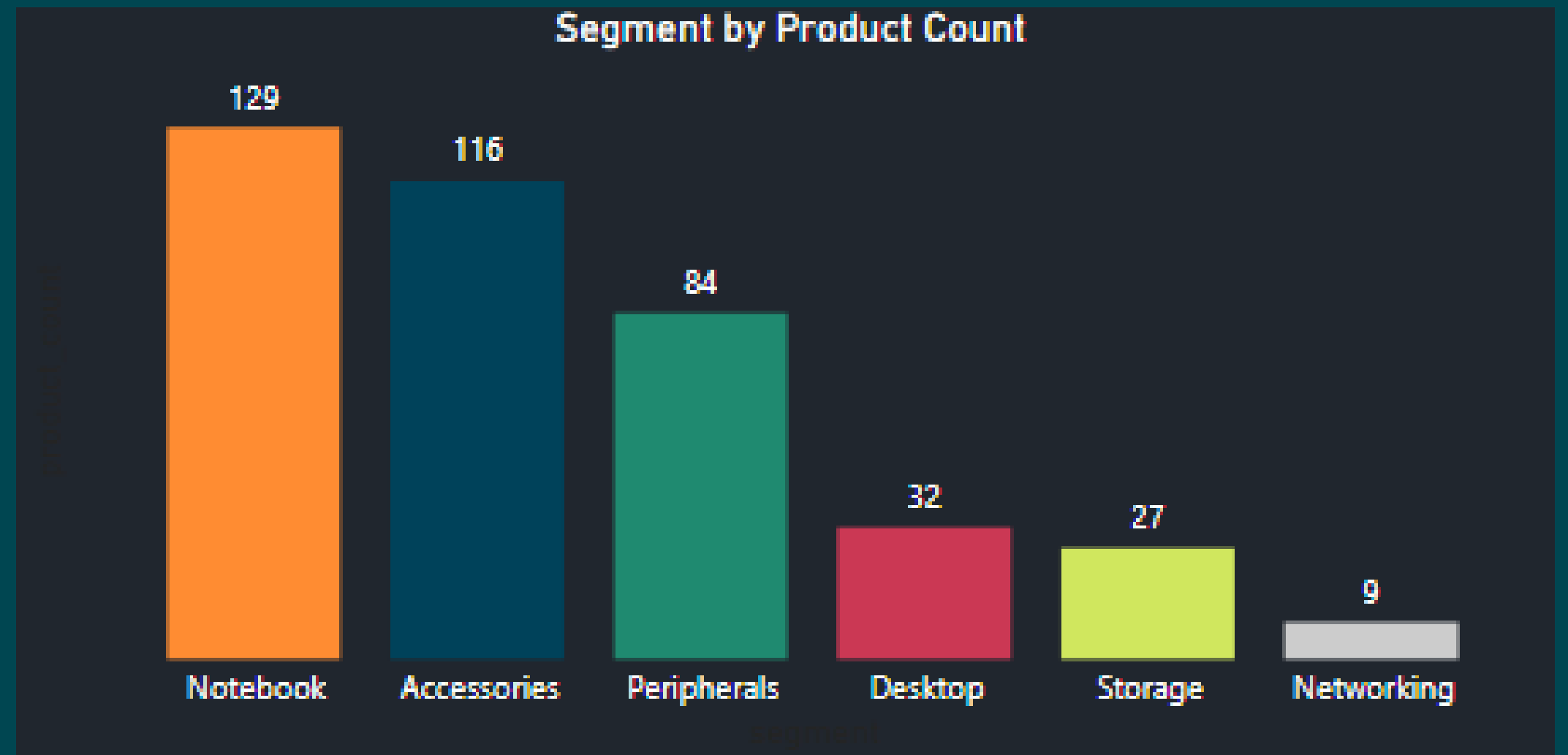
dim_product

- 1.product_code
2. division
3. segment
4. category
5. product
6. variant

OUTPUT

OUTPUT TABLE

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



REQUESTS- 4

4

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.

For this request we are using dim_product table and fact_sales_monthly table

dim_product

- 1.product_code
2. division
3. segment
4. category
5. product
6. variant

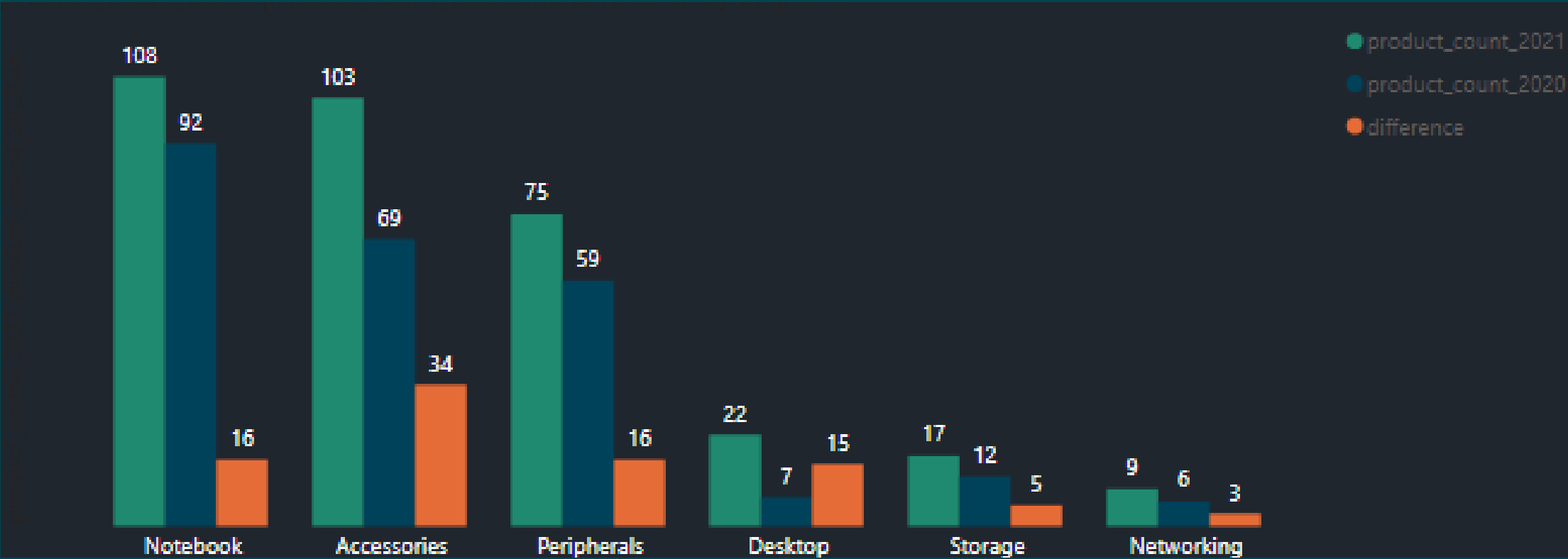
fact_sales_monthly

- 1.data
2. product_code
3. customer_code
4. sold_quantity
5. fiscal_year

OUTPUT

OUTPUT TABLE

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



REQUESTS- 5

5

Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields, `product_code` | `product` | `manufacturing_cost`

For this request we are using `dim_product` table and `fact_sales_monthly` table

`dim_product`

1. `product_code`
2. `division`
3. `segment`
4. `category`
5. `product`
6. `variant`

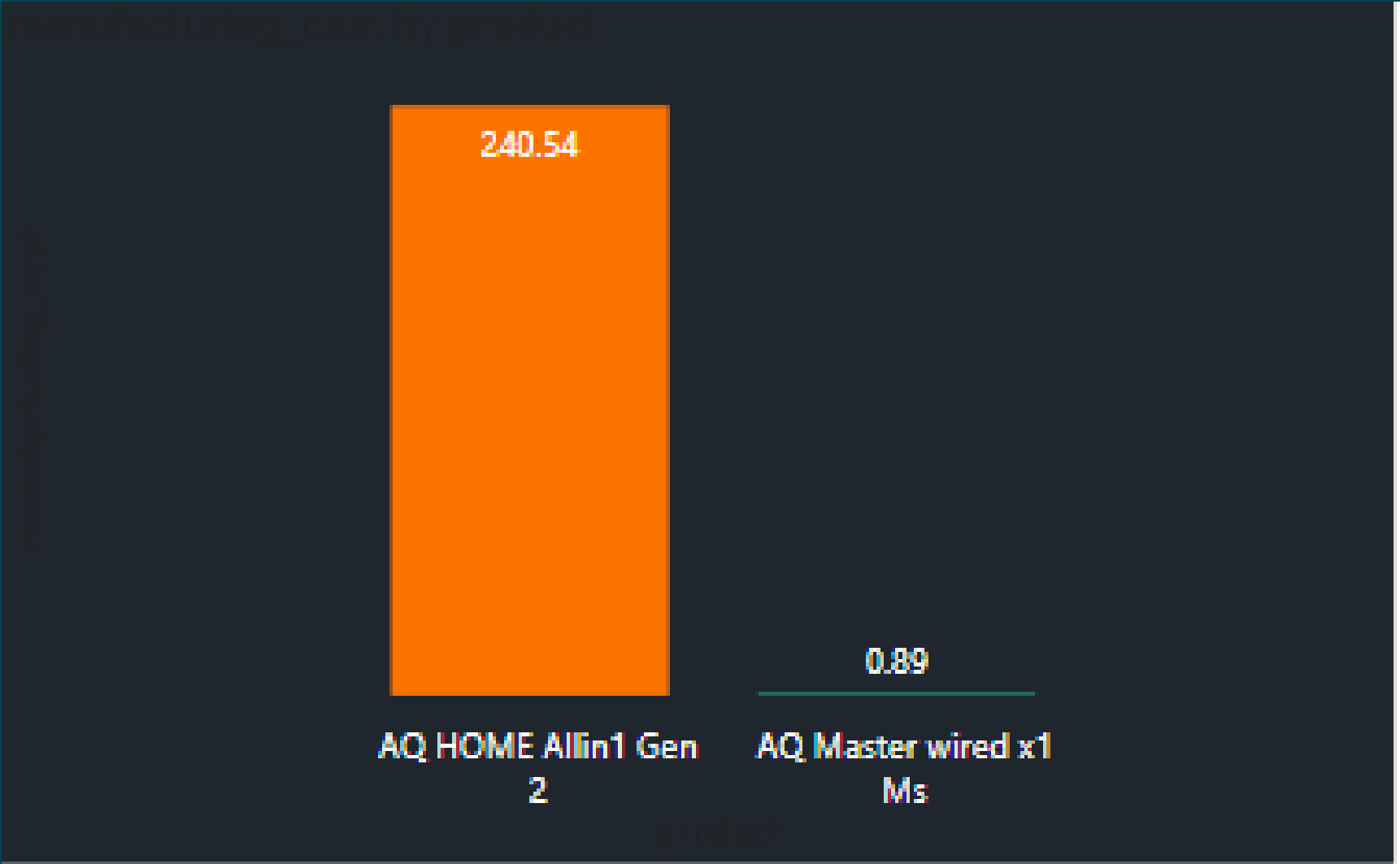
`fact_sales_monthly`

1. `data`
2. `product_code`
3. `customer_code`
4. `sold_quantity`
5. `fiscal_year`

OUTPUT

OUTPUT TABLE

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



REQUESTS- 6

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 indian market. The final output contain these fields, `customer_code` | `customer` | `average_discount` percentage.

For this request we are using `dim_product` table and `fact_pre_invoice_deduction` table

dim_product

1. `product_code`
2. `division`
3. `segment`
4. `category`
5. `product`
6. `variant`

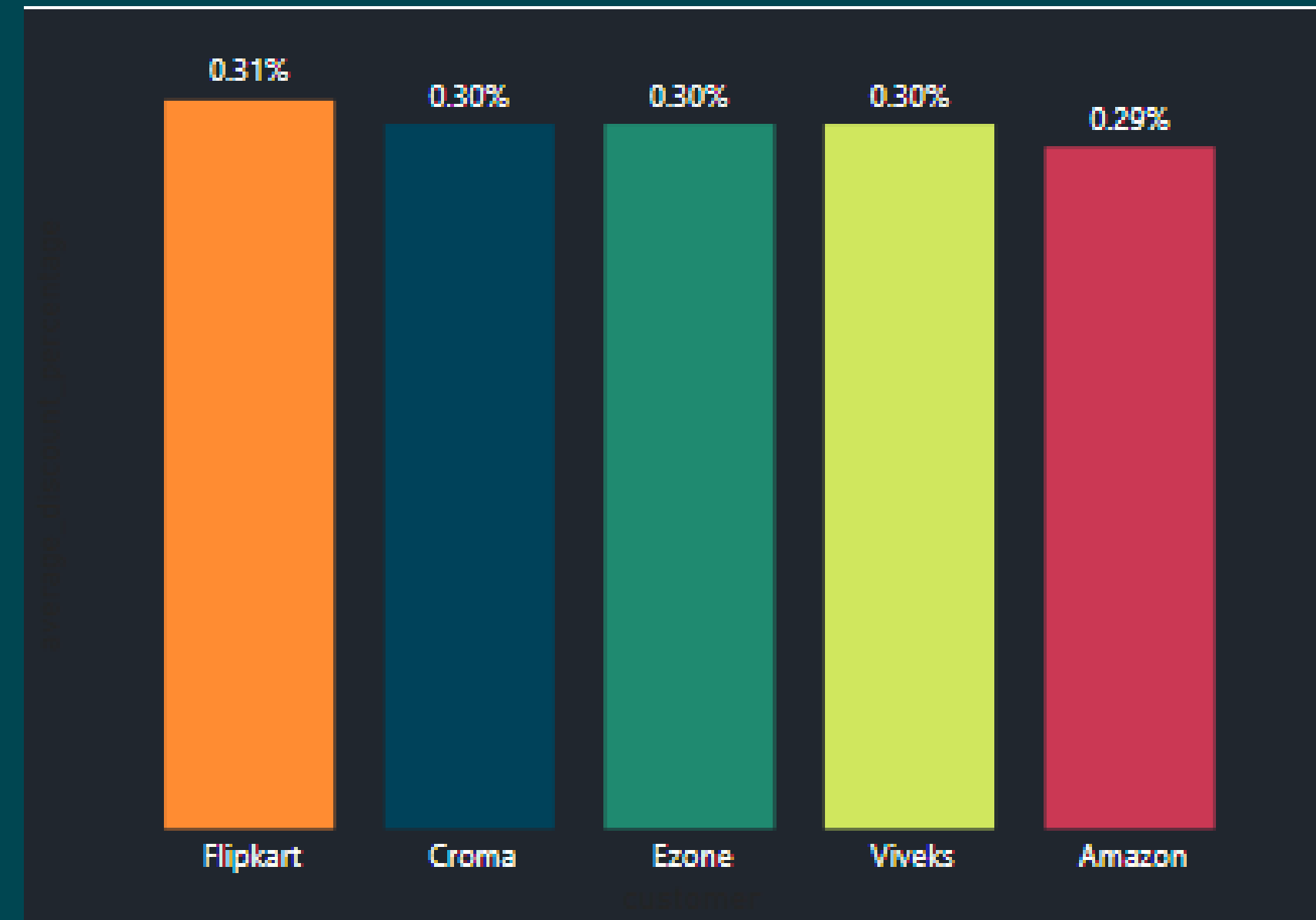
fact_pre_invoice_deduction

1. `customer_code`
2. `fiscal_year`
3. `pre_invoice_discount_pct`

OUTPUT

OUTPUT TABLE

	customer_code	customer	average_discount_percentage
▶	90002009	Flipkart	0.31%
	90002006	Viveks	0.30%
	90002003	Ezone	0.30%
	90002002	Croma	0.30%
	90002016	Amazon	0.29%



REQUESTS- 7

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 | Sales | Gross_sales_amount

For this request we are using dim_customer, fact_sales_monthly and fact_gross_price table

dim_customer

- 1.customer_code
2. customer
3. platform
4. channel
5. market
6. sub_zone
7. region

fact_sales_monthly

- 1.data
2. product_code
3. customer_code
4. sold_quantity
5. fiscal_year

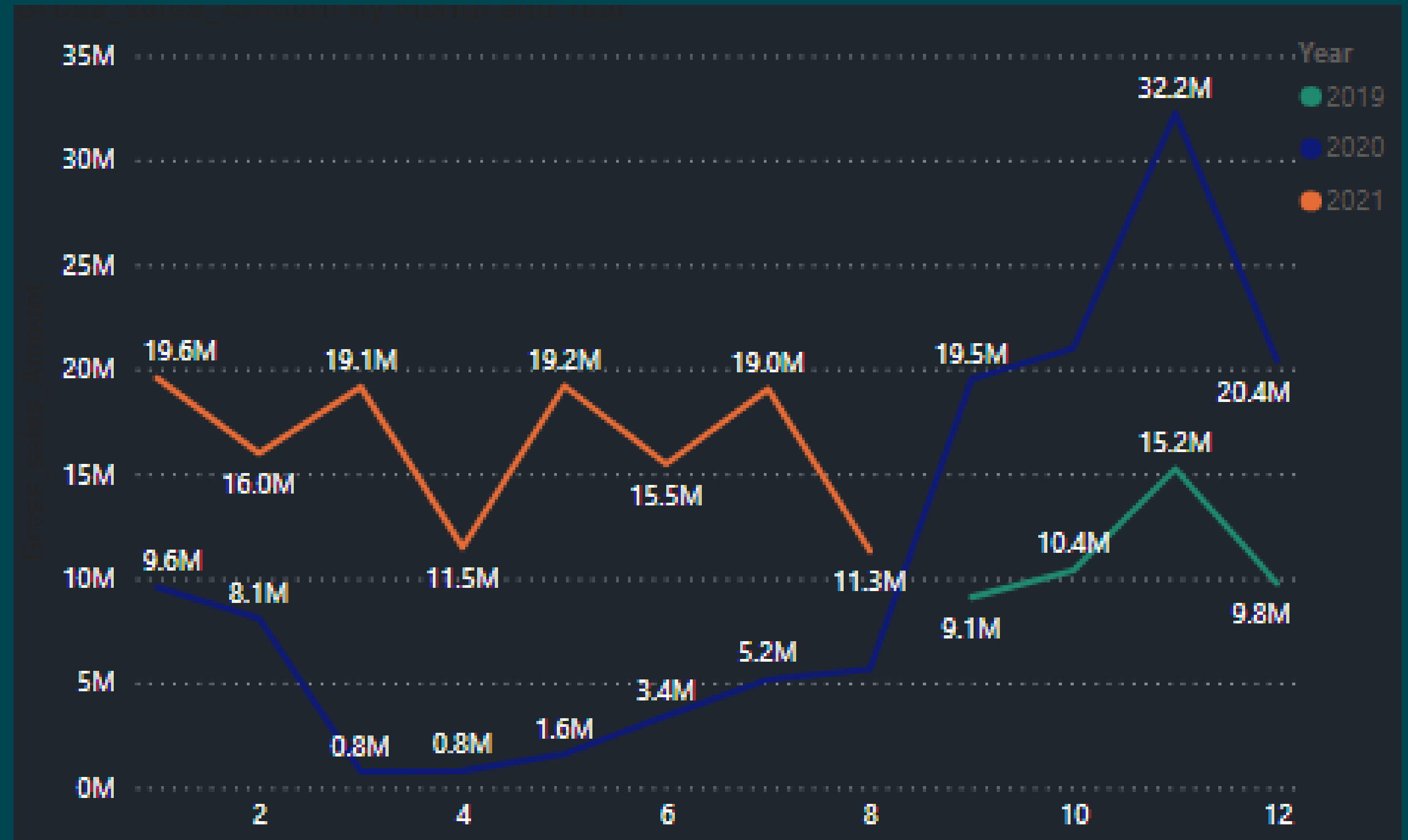
fact_gross_price

- 1.product_code
2. fiscal_year
3. gross_price

OUTPUT TABLE

	Month	Year	Gross_sales_Amount
▶	1	2020	9584951.94
	1	2021	19570701.71
	2	2020	8083995.55
	2	2021	15986603.89
	3	2020	766976.45
	3	2021	19149624.92
	4	2020	800071.95
	4	2021	11483530.30
	5	2020	1586964.48
	5	2021	19204309.41
	6	2020	3429736.57
	6	2021	15457579.66
	7	2020	5151815.40
	7	2021	19044968.82
	8	2020	5638281.83
	8	2021	11324548.34
	9	2019	9092670.34
	9	2020	19530271.30
	10	2019	10378637.60
	10	2020	21016218.21
	11	2019	15231894.97
	11	2020	32247289.79
	12	2019	9755795.06
	12	2020	20409063.18

OUTPUT



REQUESTS- 8

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

For this request we are using fact_sales_monthly table

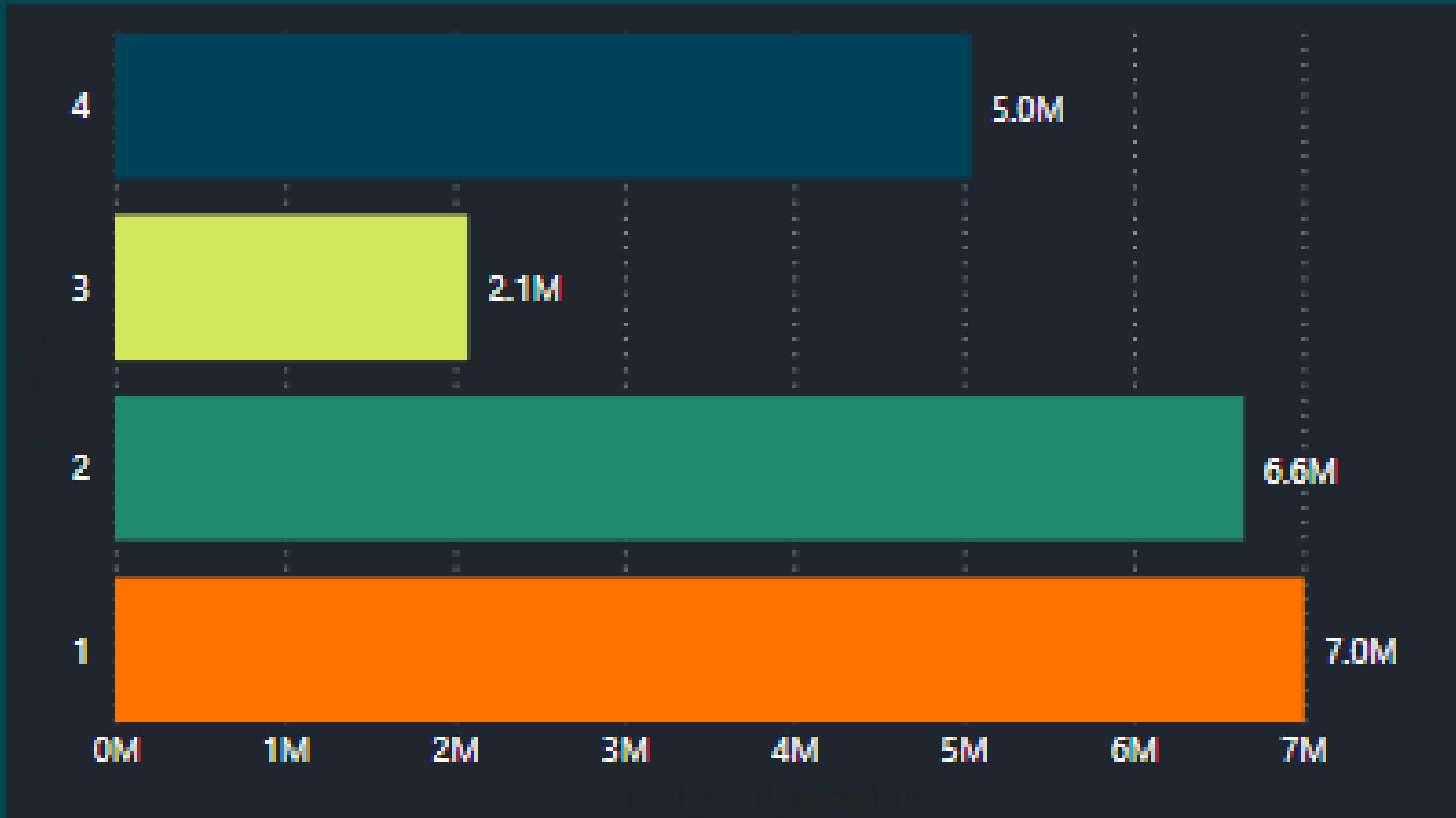
fact_sales_monthly

- 1.data
2. product_code
3. customer_code
4. sold_quantity
5. fiscal_year

OUTPUT

OUTPUT TABLE

Quarter	total_sold_quantity
1	7005619
2	6649642
4	5042541
3	2075087



REQUESTS- 9

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.

For this request we are using dim_customer, fact_sales_monthly and fact_gross_price table

dim_customer

- 1.customer_code
2. customer
3. platform
4. channel
5. market
6. sub_zone
7. region

fact_sales_monthly

- 1.data
2. product_code
3. customer_code
4. sold_quantity
5. fiscal_year

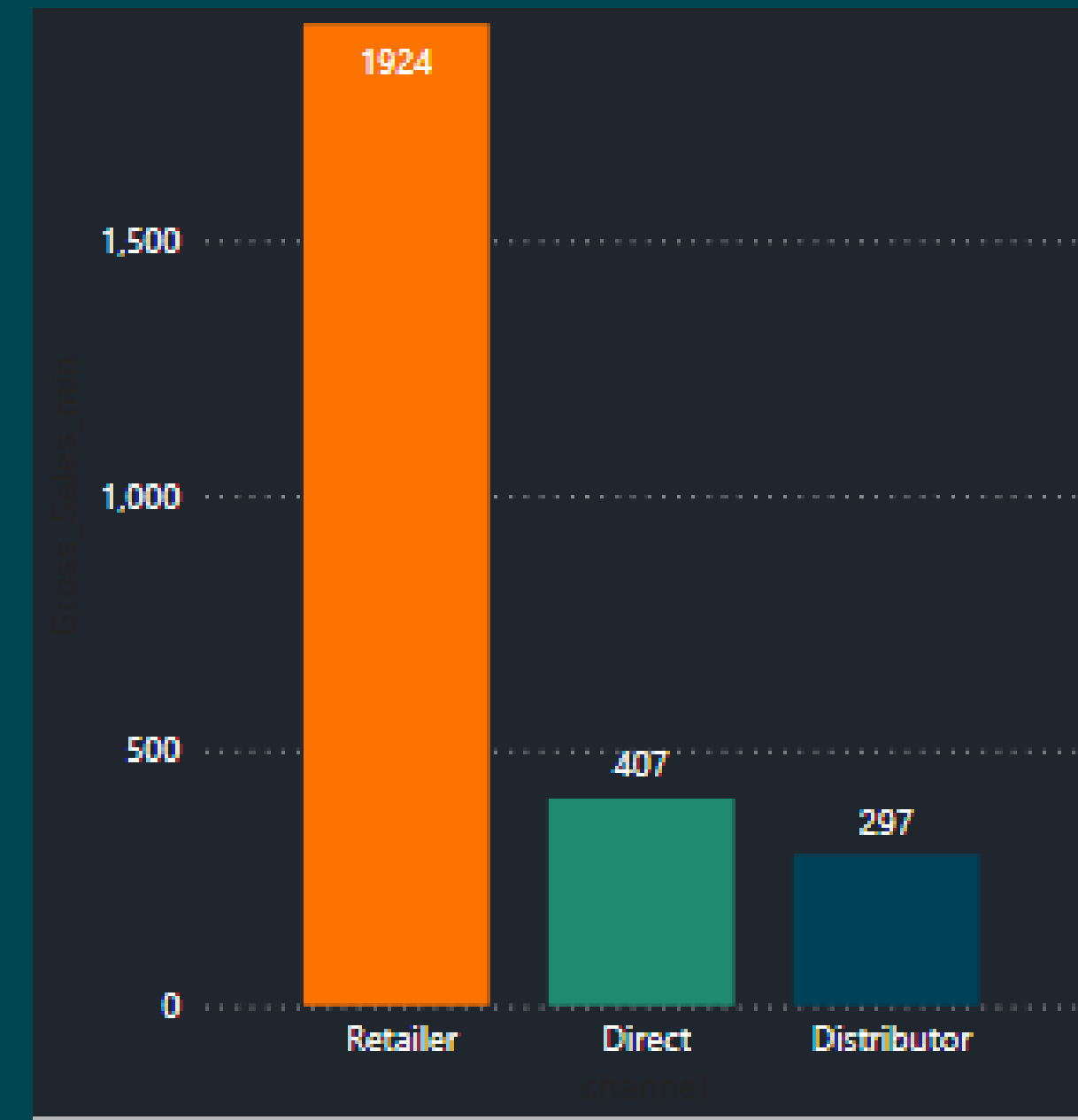
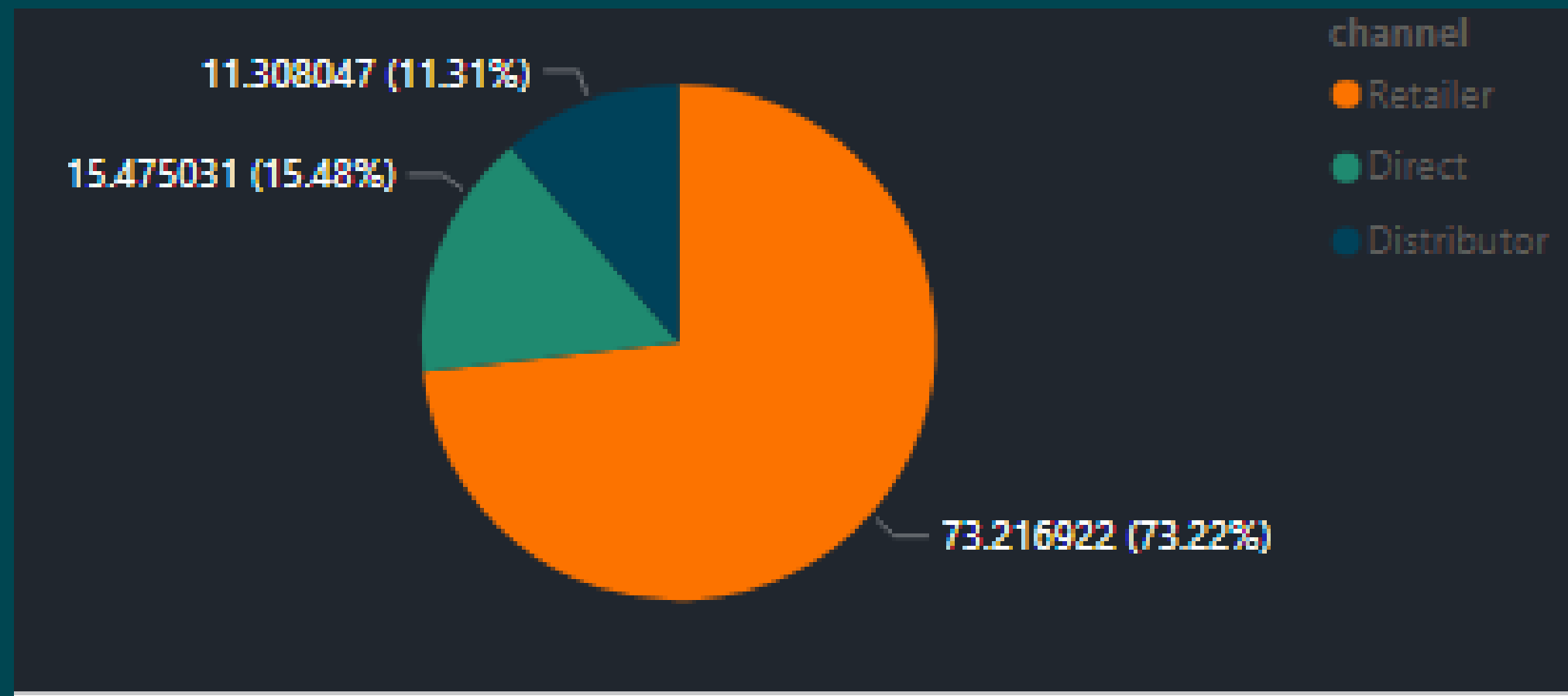
fact_gross_price

- 1.product_code
2. fiscal_year
3. gross_price

OUTPUT

OUTPUT TABLE

	channel	Gross_Sales_min	Percentage
▶	Distributor	297.18	11.308047
	Direct	406.69	15.475031
	Retailer	1924.17	73.216922



REQUESTS- 10

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

For this request we are using dim_product and fact_sales_monthly table

dim_product

- 1.product_code
2. division
3. segment
4. category
5. product
6. variant

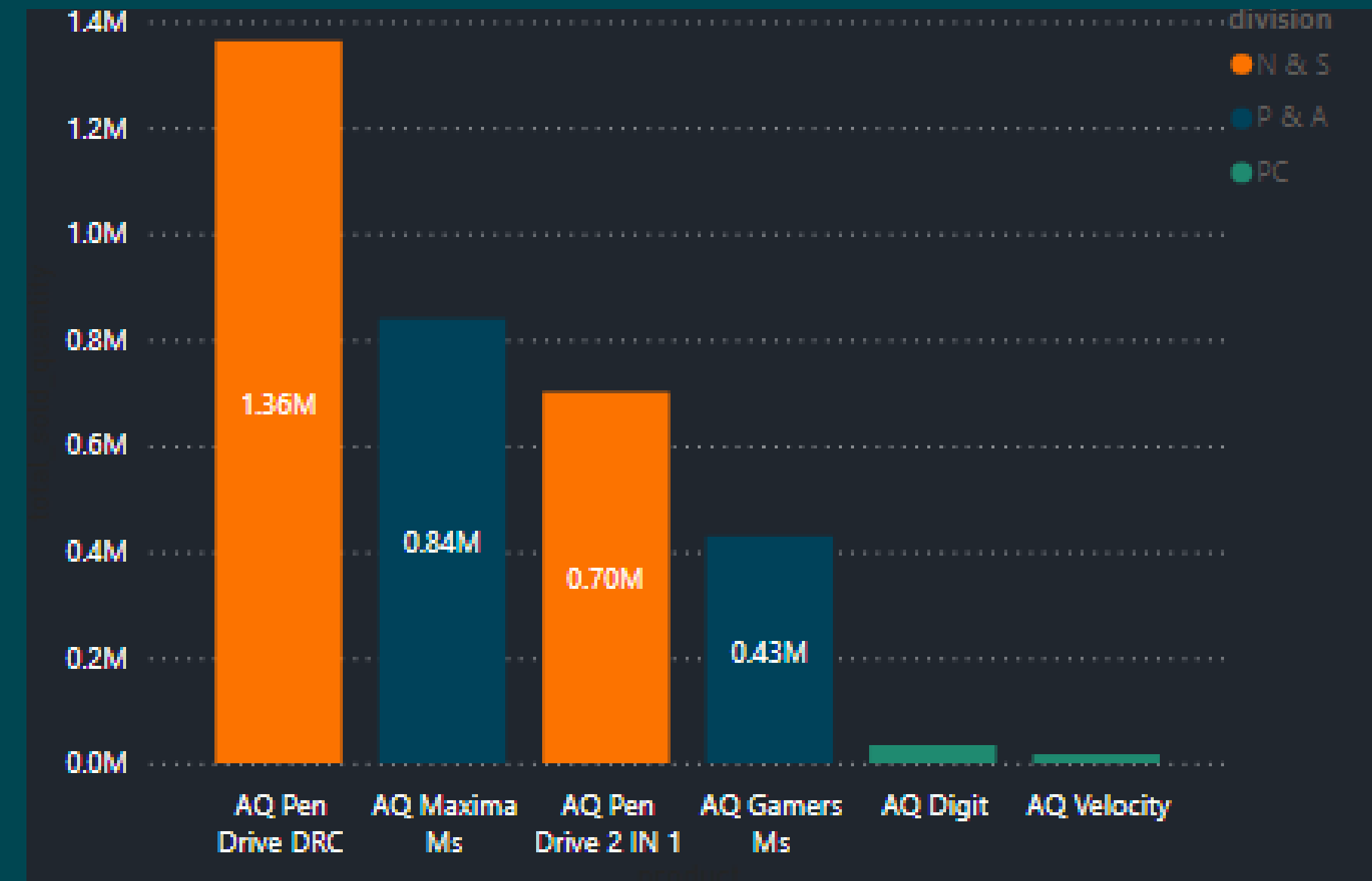
fact_sales_monthly

- 1.data
2. product_code
3. customer_code
4. sold_quantity
5. fiscal_year

OUTPUT

OUTPUT TABLE

	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



INSIGHTS

REQUEST- 1

LIST OF MARKETS IN WHICH CUSTOMER "ATLIQ EXCLUSIVE" OPERATES ITS BUSINESS IN THE APAC REGION : INDIA , INDONESIA , JAPAN , PHILIPINES , SOUTH KOREA , AUSTRALIA , NEWZEALAND , BANGLADESH.

REQUEST- 2

UNIQUE PRODUCTS IN 2020 ARE 245 AND UNIQUE PRODUCTS IN 2021 ARE 334. THIS SHOWS THAT THERE ARE 89 UNIQUE PRODUCT ADDED IN 2021 RESULTING IN THE INCREASE OF 36.33%.

REQUEST- 3

IN TOTAL WE HAVE 6 SEGMENTS. - ACCESSORIES AND PERIPHERALS HOLD THE HIGHEST PRODUCT COUNT.

INSIGHTS

REQUEST- 4

ACCESSORIES HAVE THE MOST INCEREASE IN UNIQUE PRODUCT FROM 2020 TO 2021

REQUEST- 5

AQ HOME ALLIN 1 GEN 2 HAS THE HIGHEST MANUFACTURING COST AND AQ MASTER WIRED X1 MS HAS THE LOWEST MANUFACTURING COST.

REQUEST- 6

TOTAL 5 CUSTOMERS WHO RECIEVE AN AVERAGE HIGH PRE_INVOICE_DISCOUNT_PCT FOR THE FINAL YEAR 2021 AND INDIAN MARKET ARE- FLIPCART,VIVEKS,EZONE, CROMA AND AMAZON.

INSIGHTS

REQUEST- 7

OVERALL FOR 2019,2020,2021 APRIL WAS LEAST PERFORMING MONTH AND NOVEMBER WAS HIGHEST PERFORMING MONTH.

REQUEST- 8

QUARTER 1 HAVE THE HIGHEST TOTAL SOLD QUANTITY VALUE 7.01M AND QUARTER 3 HAS THE LOWEST WITH 2.1M.

REQUEST- 9

RETAILS HAVE THE HIGHEST GROSS SALES WITH 73.22%

REQUEST- 10

WE HAVE GENERATED TOP 3 PRODUCTS FROM EACH DIVISIONS AND RANKED THEM ON THE BASIS OF HIGHEST SOLD QUANTITIES . THE DIVISIONS ARE : N&S , P&S AND PC