PREPARED BY

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ATLIQ HARDWARE

ADHOC-REPORT

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

Output:

```sql
select distinct(market) from dim_customer
where customer like '%Atliq Exclusive%' and region like '%APAC%';
```

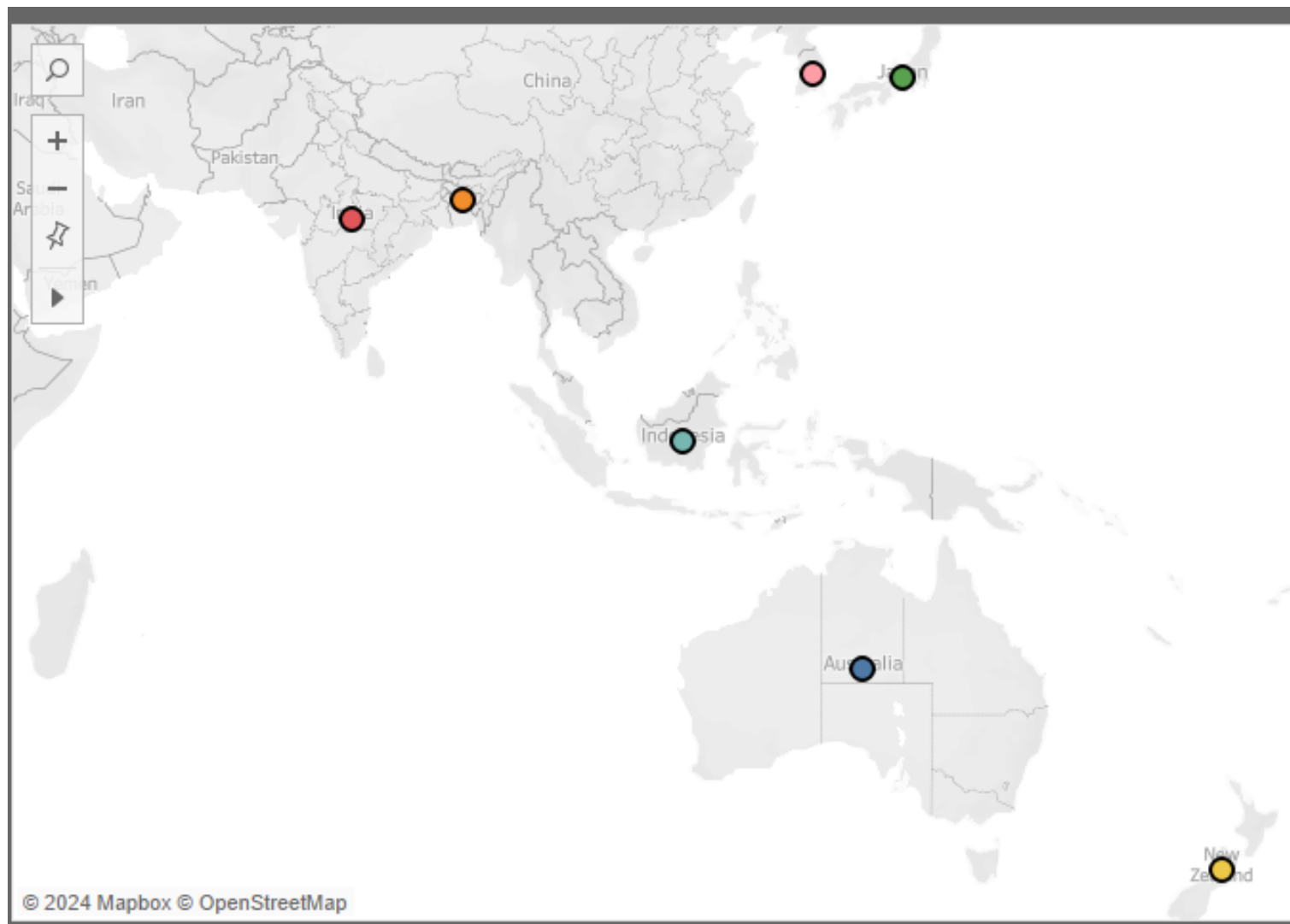| market |
| --- |
| India |
| Indonesia |
| Japan |
| Philiphines |
| South Korea |
| Australia |
| Newzealand |
| Bangladesh |

Atliq Exclusive operates business in 8 major markets in the APAC region. Two other major markets remaining are Pakistan and China.

# Request 2:What is the percentage of unique product increase in 2021 vs. 2020?

Output:

```sql
11  ●  ⊖  with up1 as (
12            select count(distinct(product_code)) UniqueProducts_2020,fiscal_year from fact_sales_monthly
13          ⌐ where fiscal_year = '2020'),
14      ⊖  up2 as(
15            select count(distinct(product_code)) UniqueProducts_2021,fiscal_year from fact_sales_monthly
16          ⌐ where fiscal_year = '2021')
17            select up1.UniqueProducts_2020,up2.UniqueProducts_2021,
18            round(((up2.UniqueProducts_2021 - up1.UniqueProducts_2020)/(up1.UniqueProducts_2020))*100,2) as Pct_change
19            from up1 cross join up2;
```

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UniqueProducts_2020	UniqueProducts_2021	Pct_change
245	334	36.33

A noteworthy surge of 36.33% in product numbers signifies the company's dedicated efforts in introducing a substantial array of new products to the market.
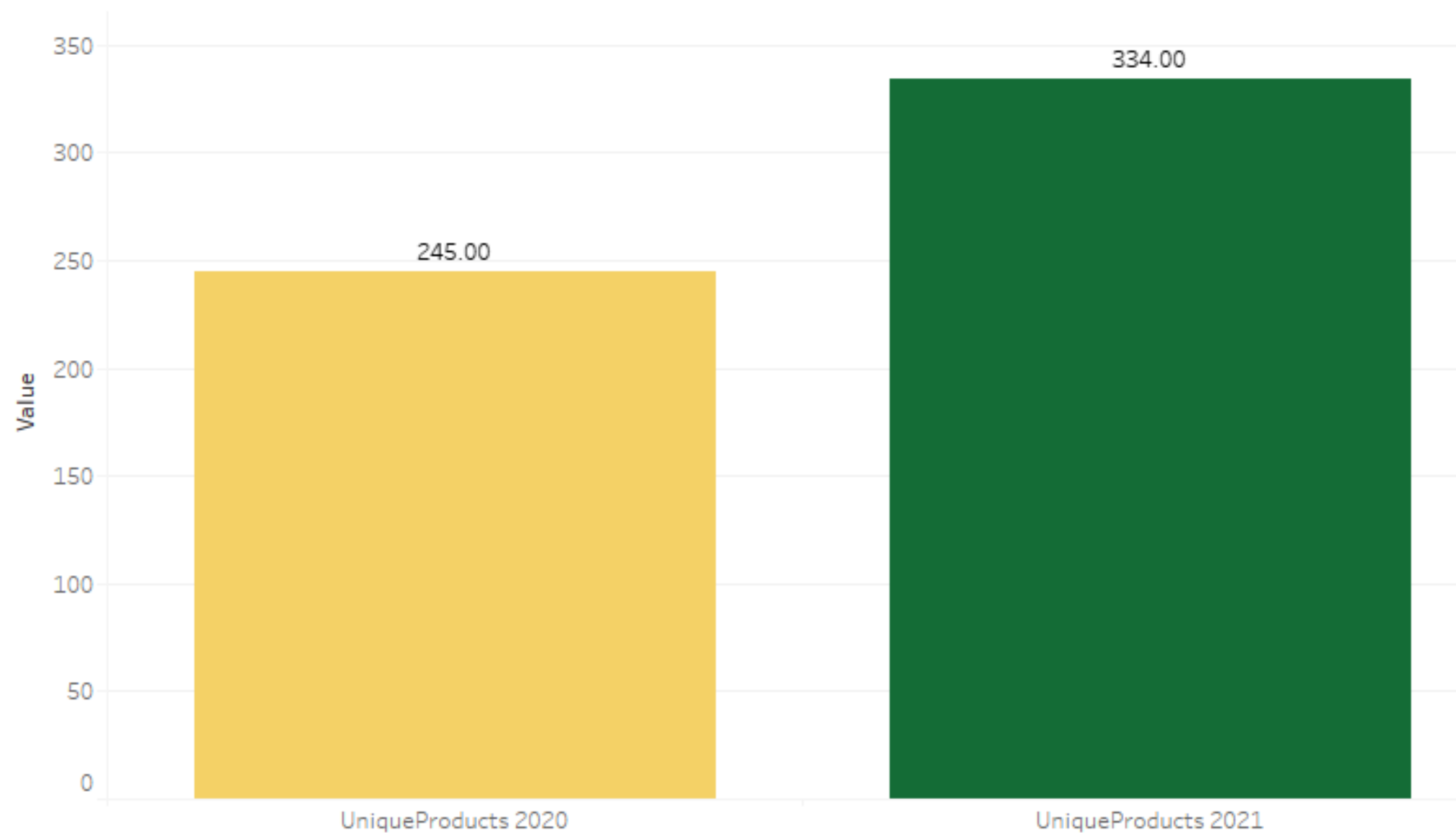
Request 3:Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

Output:

```sql
23 •    select segment,count(distinct(product_code)) UniqueProd_count from dim_product
24      group by 1
25      order by 2 desc;
26
```
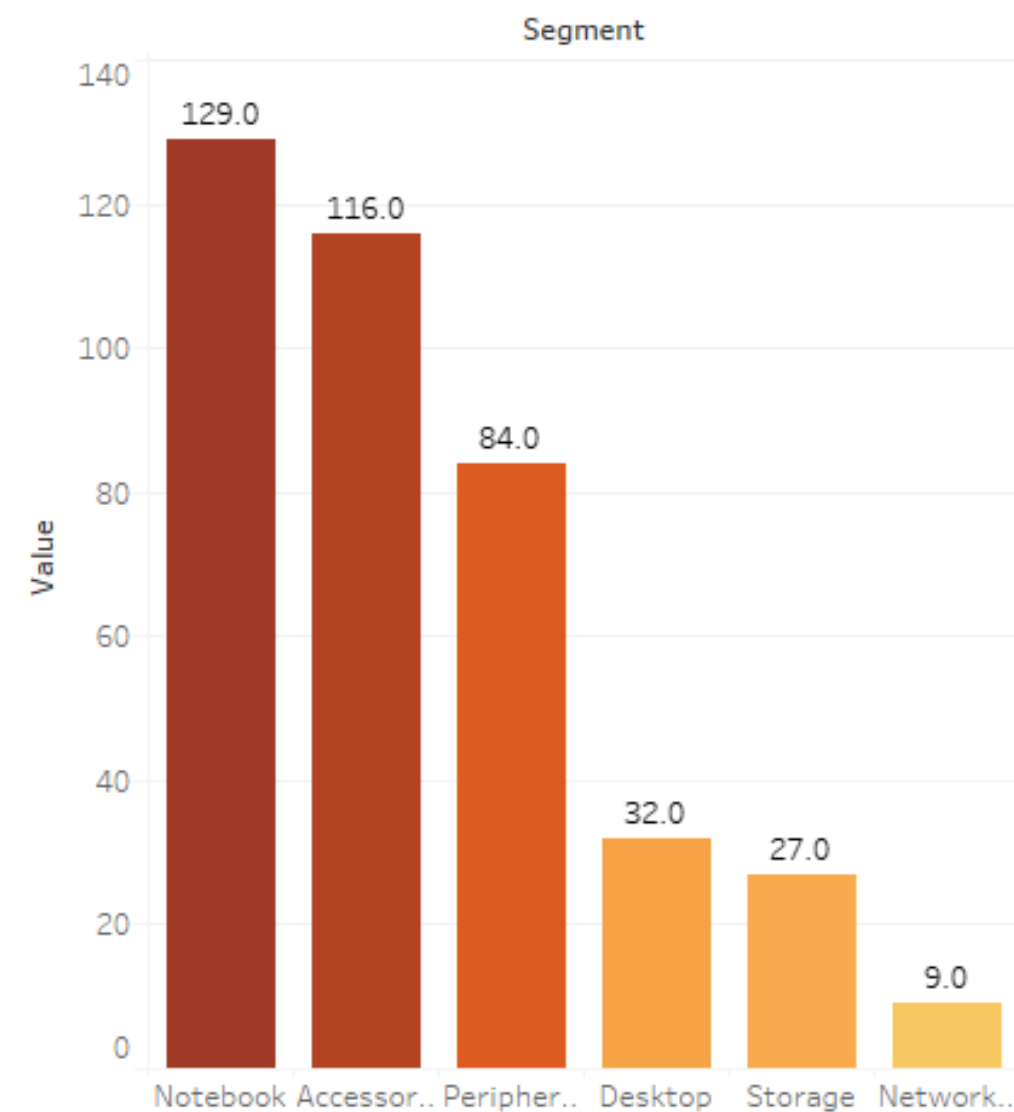
segment	UniqueProd_count
Notebook	129
Accessories	116
Peripherals	84
Desktop	32
Storage	27
Networking	9

The Networking segment exhibits the lowest product count, while the Notebook segment boasts the highest. This suggests a strategic focus on sales and marketing for the Networking segment, likely in response to its high demand..


Segment

| Value |
129.0
116.0
84.0
32.0
27.0
9.0

Notebook Accessor.. Peripher.. Desktop Storage Network..

Request 4:Follow-up: Which segment had the most increase in unique products in 2021 vs 2020?

Output:

```
28 ● ⊖   with up1 as (select p.segment ,  s.fiscal_year ,count(distinct(s.product_code)) UniqueProduct_cout2020
29    │     from fact_sales_monthly s join dim_product p using(product_code)
30    └     group by 1,2 having s.fiscal_year = 2020 order by 3 desc),
31   ⊖     up2 as (
32    │     select p.segment ,  s.fiscal_year ,count(distinct(s.product_code)) UniqueProduct_cout2021
33    │     from fact_sales_monthly s
34    │     join dim_product p using(product_code)
35    │     group by 1,2
36    │     having s.fiscal_year = 2021
37    └     order by 3 desc)
38          select up2.segment as Segment,up1.UniqueProduct_cout2020 ,up2.UniqueProduct_cout2021,
39          (up2.UniqueProduct_cout2021 - up1.UniqueProduct_cout2020) as difference
40          from up2
41          join up1 on up1.segment = up2.segment
42          order by difference desc;
```

Segment	UniqueProduct_cout2020	UniqueProduct_cout2021	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

The Accessories segment stands out with the most significant increase in unique products. Not only did it experience the highest growth, but the difference is double compared to the second-highest segment in terms of unique product increase
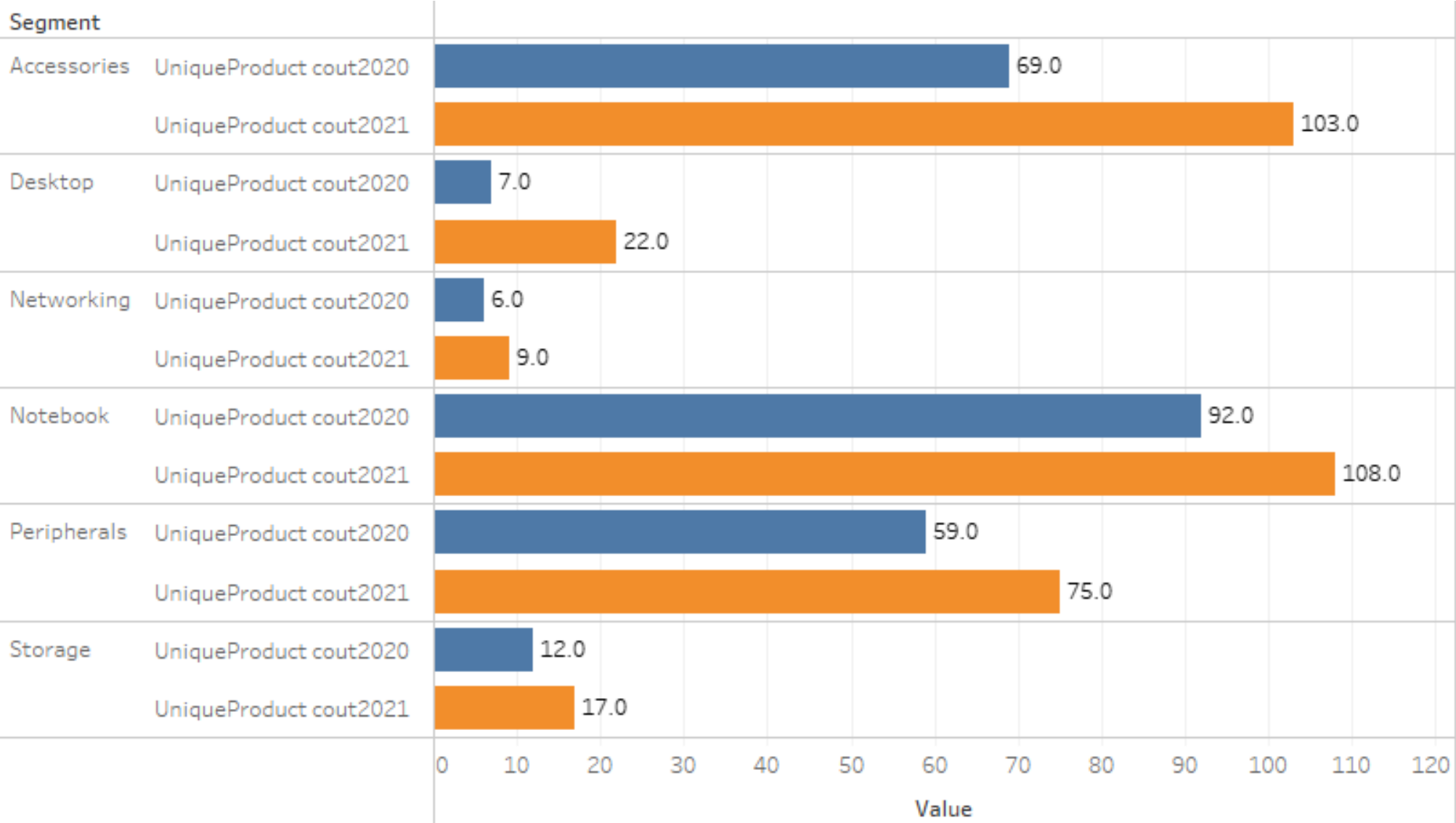
Request 5:Follow-up: Get the products that have the highest and lowest manufacturing costs?

Output:

```sql
46    (select p.product_code,p.product,m.manufacturing_cost  from dim_product p
47        join fact_manufacturing_cost m using(product_code)
48        order by 3 desc limit 1)
49        union
50    (select p.product_code,p.product,m.manufacturing_cost  from dim_product p
51        join fact_manufacturing_cost m using(product_code)
52        order by 3  limit 1);
```

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

product_code	product	manufacturing_cost
A6121110208	AQ HOME Allin1 Gen 2	263.4207
A2118150101	AQ Master wired x1 Ms	0.8654

The manufacturing cost is maximum for AQ Home Allin1 Gen 2, while AQ Master wired x1 Ms incurs the lowest manufacturing cost.
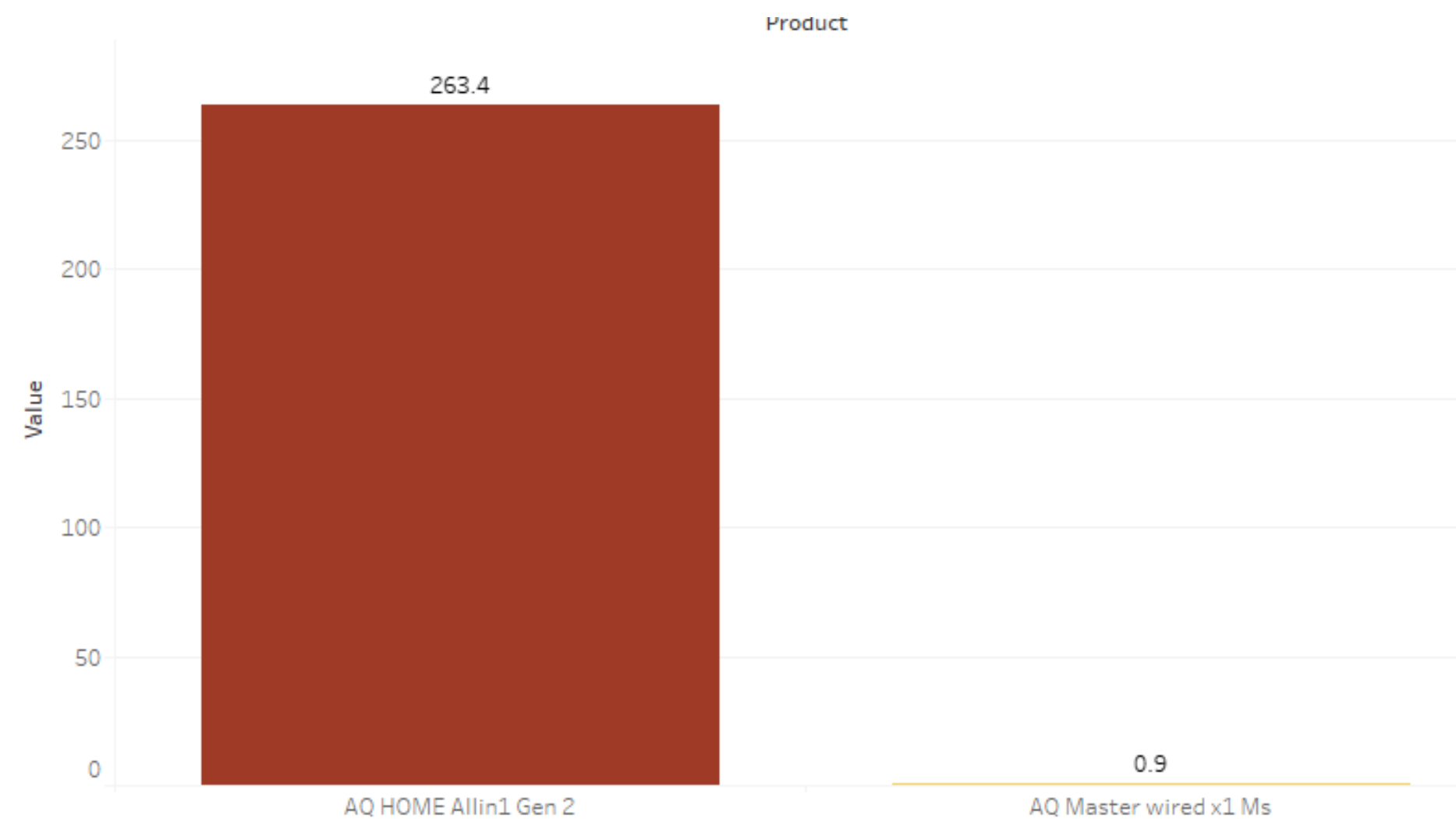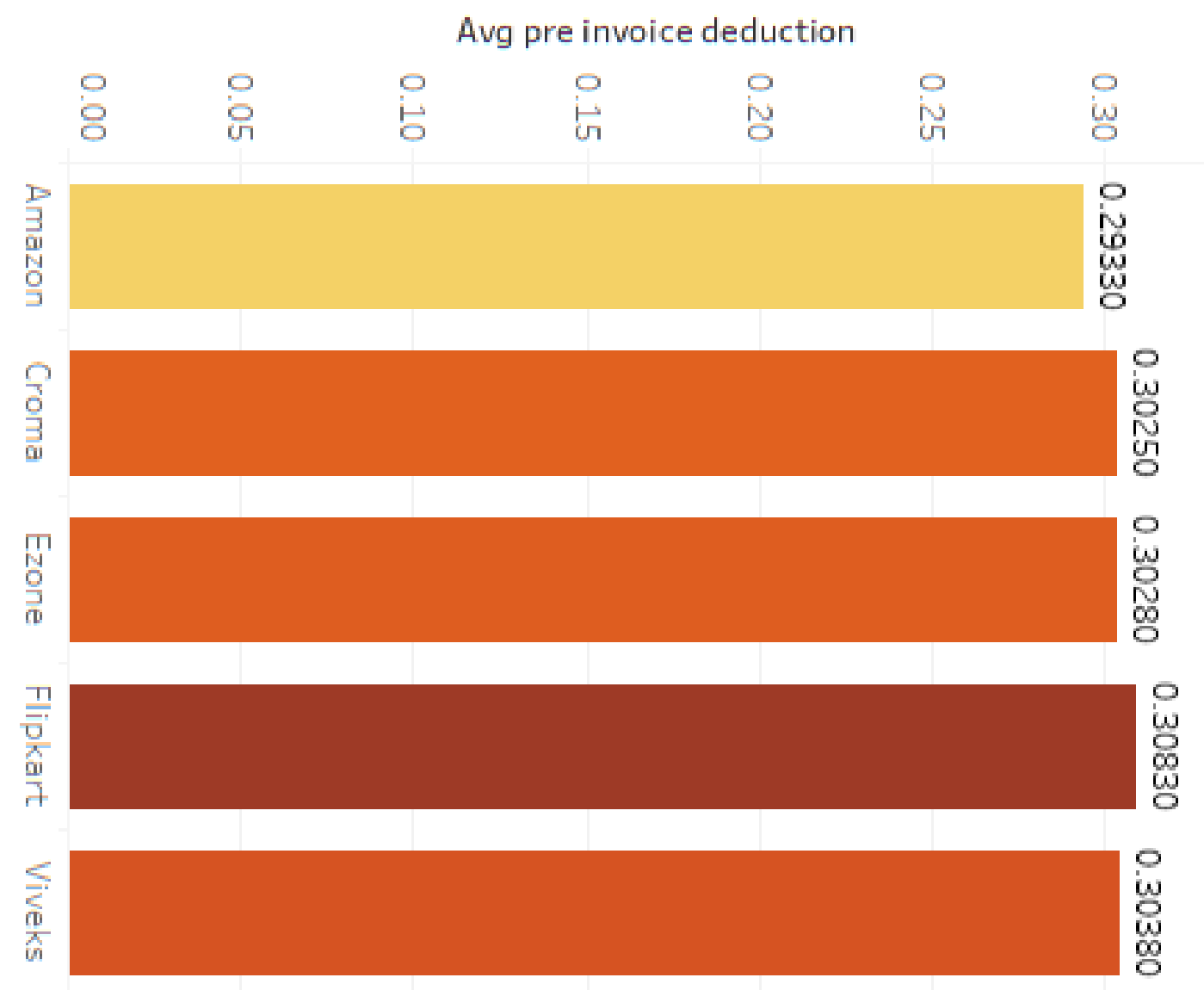
Request 6:Generate a report which contains the top 5 customers who received an average high pre_invoice_discount_pct for the fiscal year 2021 and in the Indian market?

Output:

```sql
61    select c.customer_code,c.customer,avg(p.pre_invoice_discount_pct) as Avg_pre_invoice_deduction from dim_customer c
62    join fact_pre_invoice_deductions p using(customer_code)
63    where p.fiscal_year = '2021' and c.market like '%India%'
64    group by 1,2
65    having Avg_pre_invoice_deduction > (select avg(pre_invoice_discount_pct) from fact_pre_invoice_deductions)
66    order by 3 desc
67    limit 5;
68
```

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

customer_code	customer	Avg_pre_invoice_deduction
90002009	Flipkart	0.30830000
90002006	Viveks	0.30380000
90002003	Ezone	0.30280000
90002002	Croma	0.30250000
90002016	Amazon	0.29330000

The average pre invoice discount percentage for the fiscal year 2021 and in the Indian market for the top 5 customers varies from 27.5% to 30.8%.

Avg pre invoice deduction

Customer	Value
Amazon	0.29330
Croma	0.30250
Ezone	0.30280
Flipkart	0.30830
Viveks	0.30380

Request 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?
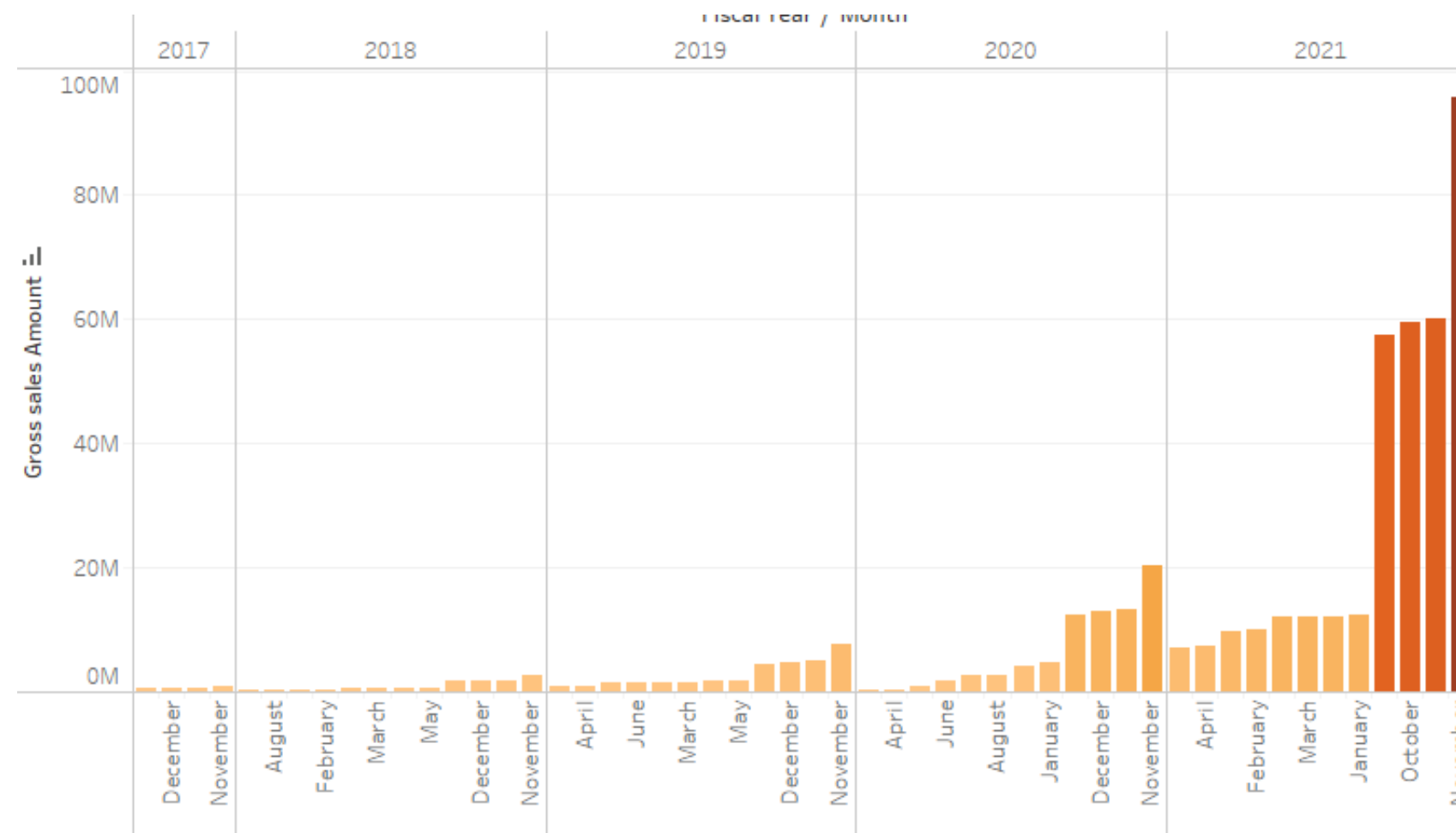
Output:

```sql
76  ● select year(s.`date`) fiscal_year,monthname(s.`date`) Month_,round(sum(s.sold_quantity*g.gross_price),2) Gross_sales_Amount
77     from fact_sales_monthly s
78     join fact_gross_price g on g.product_code = s.product_code and g.fiscal_year = s.fiscal_year
79     join dim_customer c on c.customer_code = s.customer_code
80     where c.customer like '%Atliq Exclusive%'
81     group by 1,2
82     order by month(Month_);
```

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

fiscal_year	Month_	Gross_sales_Amount
2017	September	490265.57
2017	October	510225.91
2017	November	780459.92
2017	December	496077.07
2018	January	470449.81
2018	February	416154.77
2018	March	464649.67
2018	April	287798.91
2018	May	477846.12
2018	June	414128.99
2018	July	459275.75
2018	August	309038.64
2018	September	1691699.63
2018	October	1825301.32
2018	November	2660157.28

Result 8 ✕

November 2020 marked the pinnacle of monthly sales for the company, while March 2020 recorded the lowest gross sales, possibly due to the initial impact of the first wave of COVID-19. However, the company swiftly rebounded and, within six months, achieved its highest□ever gross sales in this 2 years.

Request 8:In which quarter of 2020, got the maximum total_sold_quantity?
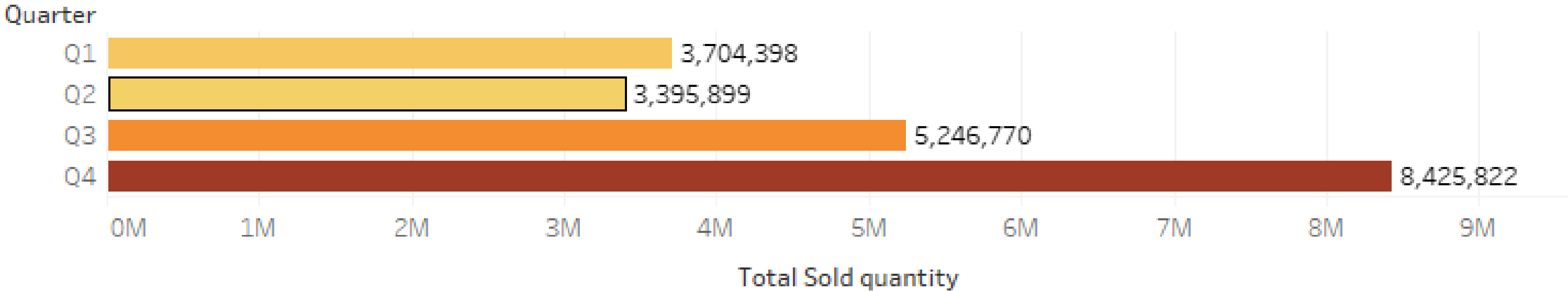
Output:

```
87 ●    select concat('Q',quarter(`date`)) as Quarter_,sum(sold_quantity) as Total_Sold_quantity from fact_sales_monthly
88       where fiscal_year = '2020'
89       group by 1
90       order by 2 desc;
91
```

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

Quarter_	Total_Sold_quantity
Q4	8425822
Q3	5246770
Q1	3704398
Q2	3395899

For the fiscal year 2020 Company sold maximum quantities of product in Fourth Quarter.

Request 9:Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?

Output:

```sql
94  •    select c.channel,
95       round(sum(s.sold_quantity*g.gross_price),2) Gross_sales_Amount,
96  ⊖    (round(sum(s.sold_quantity*g.gross_price),2) / (select round(sum(s.sold_quantity*g.gross_price),2) Gross_sales_Amount
97        from fact_sales_monthly s
98        join fact_gross_price g on g.product_code = s.product_code and g.fiscal_year = s.fiscal_year
99        join dim_customer c on c.customer_code = s.customer_code
100       where s.fiscal_year = 2021))*100 as Perc_change
101       from fact_sales_monthly s
102       join dim_customer c on c.customer_code = s.customer_code
103       join fact_gross_price g on g.product_code = s.product_code and g.fiscal_year = s.fiscal_year
104       where s.fiscal_year = 2021
105       group by 1
106       order by 3 desc;
```

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

channel	Gross_sales_Amount	Perc_change
Retailer	1219081639.95	73.233983
Direct	257532002.65	15.470739
Distributor	188025630.93	11.295278

In 2021, the Retailer channel played a substantial role in the gross sales, contributing 73.23%. On the other hand, Distributors contributed the least at 11.30%, but it's noteworthy that the difference between the Distributor and Direct channels is minimal and shouldn't be overlooked.
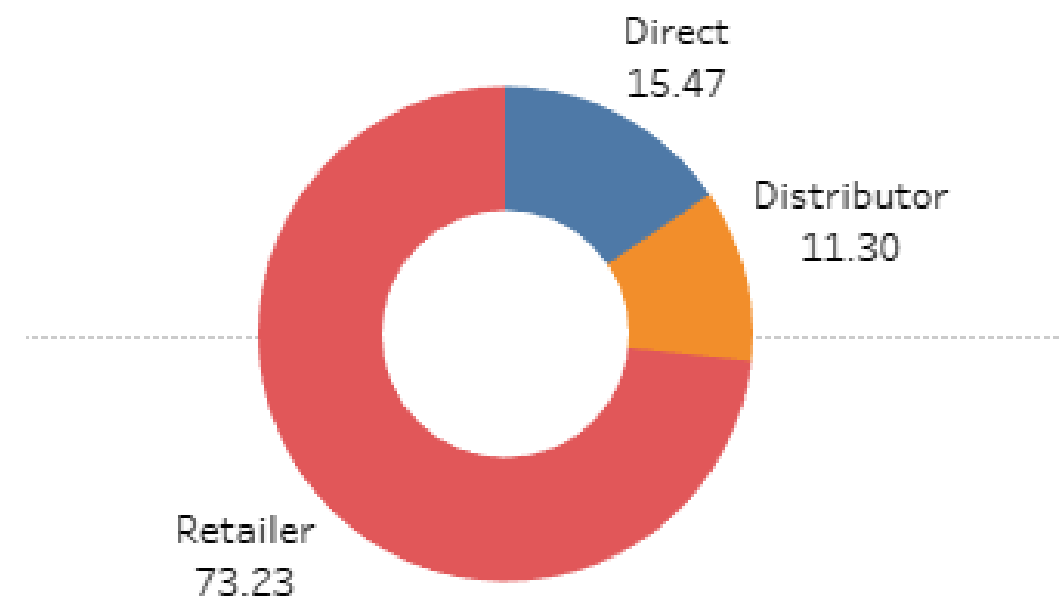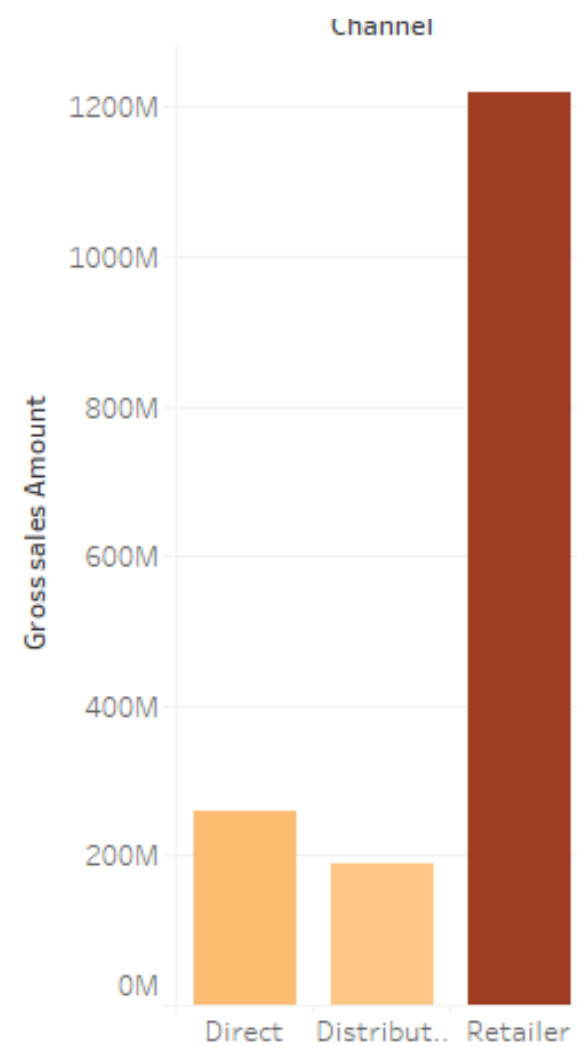
Request 10:Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021?

Output:

```sql
109  ●  ⊖  with t1 as (
110          select p.division,
111          p.product_code,p.product,sum(s.sold_quantity) Total_sold_quantity,
112          dense_rank() over(partition by division order by sum(s.sold_quantity) desc) Rank_
113          from fact_sales_monthly s
114          join  dim_product p on p.product_code = s.product_code
115          where s.fiscal_year = '2021'
116          group by 1,2,3)
117          select * from t1 where Rank_ <=3 ;
```

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

division	product_code	product	Total_sold_quantity	Rank_
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 bestselling products for PC, P & A and N & S are laptops, mouse and pen drives respectively

AQ Pen Drive DRC
676,245

AQ Pen Drive 2 IN 1
701,373

AQ Pen Drive DRC
688,003

AQ Gamers Ms
428,498

AQ Maxima Ms
419,865

AQ Digit
17,434

AQ Digit
17,275