Consumer Goods Ad_hoc Insights

Request 1

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

SQL Query :

```
select DISTINCT(market)
from dim_customer
where region = "APAC"
and Customer = "Atliq Exclusive";
```

Output :

market
India
Indonesia
Japan
Philiphines
South Korea
Australia
Newzealand
Bangladesh

Visualization

Request 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

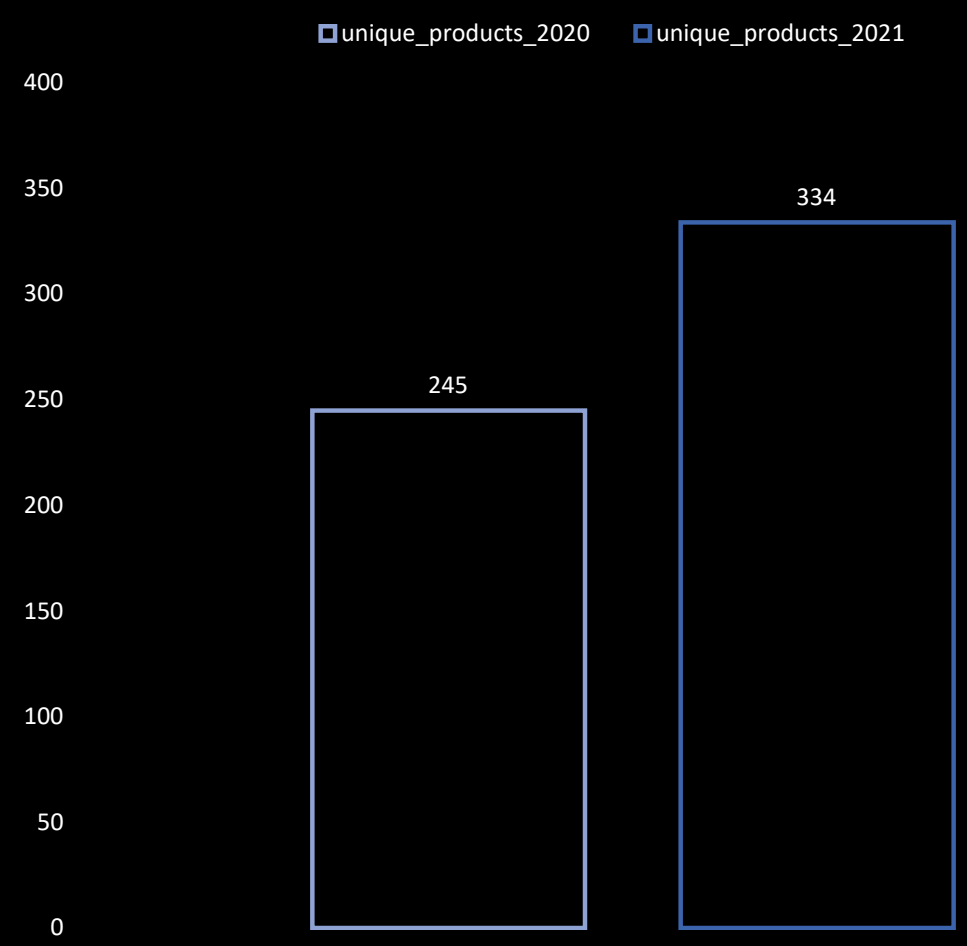
SQL Query :

```
with  cte_20 as (select count(distinct(product_code)) as unique_products_2020
FROM fact_sales_monthly
where fiscal_year = 2020)
,cte_21 as (select count(distinct(product_code)) as unique_products_2021
FROM fact_sales_monthly
where fiscal_year = 2021)

select cte_20. * , cte_21. * ,
ROUND(( cte_21.unique_products_2021- cte_20.unique_products_2020) *100/ cte_20.unique_products_2020,2) as percentage_chg
from cte_20  join cte_21;
```

Output :

unique_products_2020	unique_products_2021	percentage_chg
245	334	36.33

Visualization



Request 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

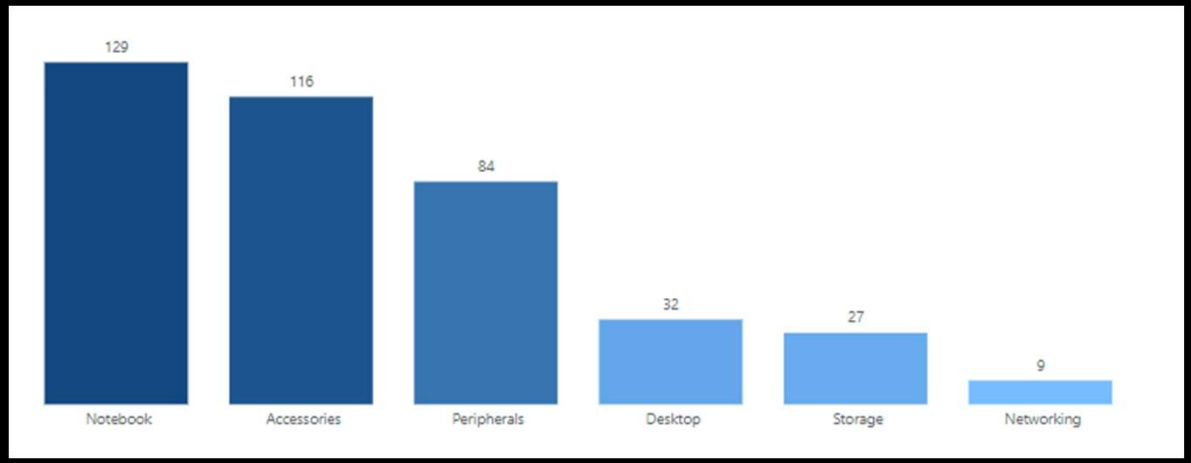
SQL Query :

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

Output :

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

Visualization



Request 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

SQL Query :

```
with cte1 as (select p.segment ,count(distinct(p.product_code)) as product_count_2020
FROM fact_sales_monthly f
join dim_product p
on f.product_code = p.product_code
where fiscal_year = 2020
group by p.segment
)
, cte2 as (select p.segment ,count(distinct(p.product_code)) as product_count_2021
FROM fact_sales_monthly f
join dim_product p
on f.product_code = p.product_code
where fiscal_year = 2021
group by p.segment
)
select cte1.segment, product_count_2020 ,  product_count_2021 ,
(product_count_2021 - product_count_2020) as difference
from cte1 join cte2
on cte1.segment = cte2.segment
order by difference desc;
```

Output :

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

Request 5

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

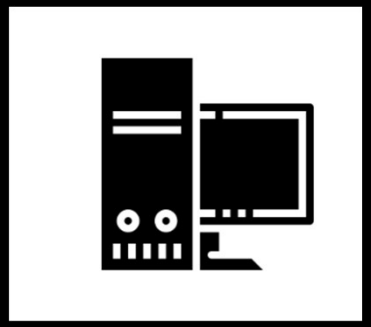
SQL Query :

```
select m.product_code,
p.product,
round(m. manufacturing_cost,2) as manufacturing_cost
from fact_manufacturing_cost m
join dim_product p
on  m.product_code = p.product_code
where m.manufacturing_cost =  (select max(m.manufacturing_cost) FROM fact_manufacturing_cost m)
union all
select m.product_code, p.product,
round(m. manufacturing_cost ,2)
from fact_manufacturing_cost m
join dim_product p
on  m.product_code = p.product_code
where m.manufacturing_cost =  (select min(m.manufacturing_cost) FROM fact_manufacturing_cost m);
```

Output :

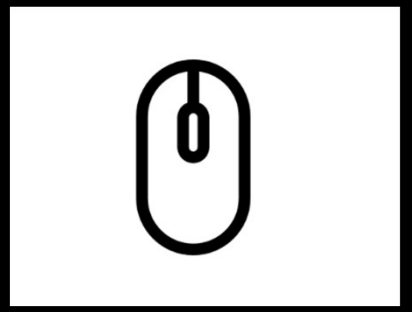
product_code	product	manufacturing_cost
A6120110206	AQ HOME Allin1 Gen 2	240.54
A2118150101	AQ Master wired x1 Ms	0.89

Visualization



AQ HOME Allin1 Gen 2

240.54



AQ Master wired x1 Ms

0.89

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. The final output contains these fields, customer_code customer average_discount_percentage

SQL Query :

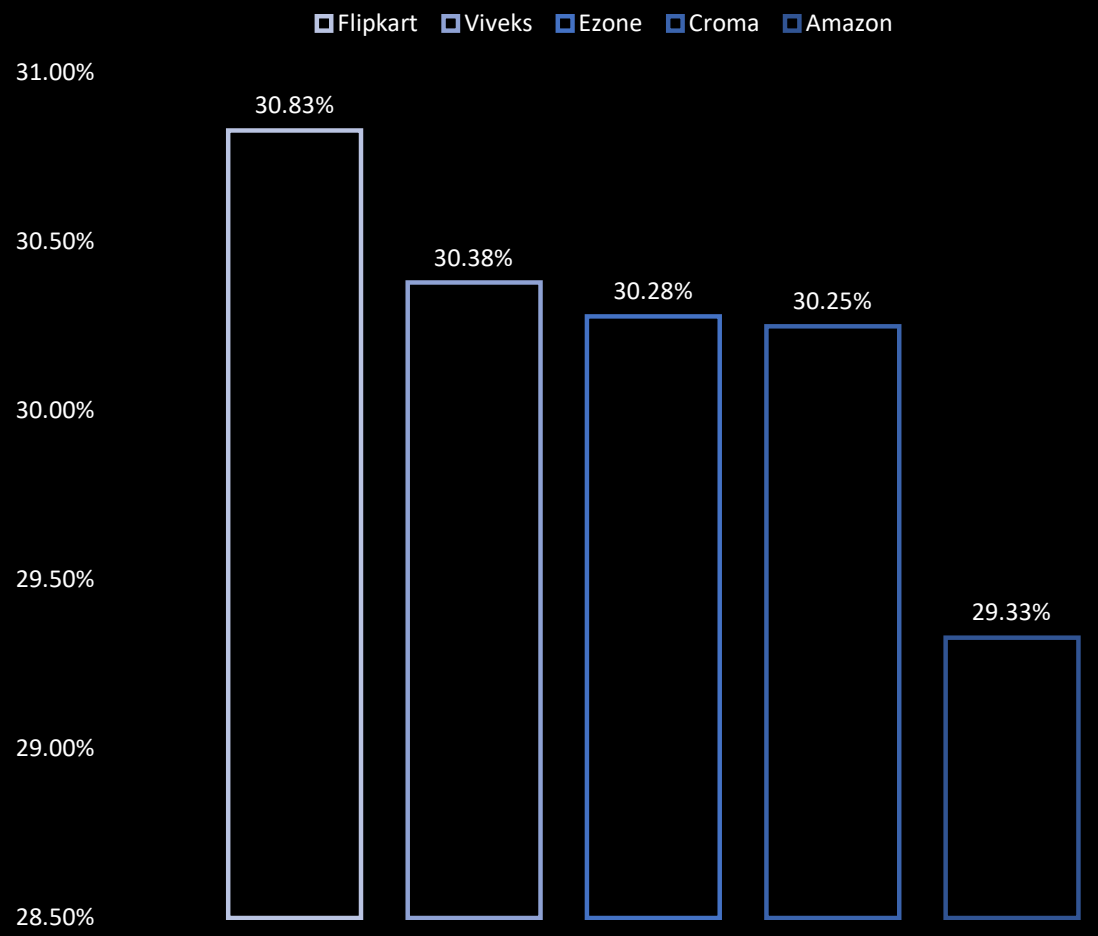
```
select c.customer_code, c.customer, round(p.pre_invoice_discount_pct*100,2) AS average_discount_percentage
from fact_pre_invoice_deductions p
join dim_customer c on
p.customer_code = c.customer_code
where p.pre_invoice_discount_pct > (select avg(pre_invoice_discount_pct) from fact_pre_invoice_deductions)
and c.market = "India" and fiscal_year =2021
order by average_discount_percentage desc
limit 5;
```

Output :

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

Atliq Exclusive operates its Business in 8 Different market in APAC region.

Visualization



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. The final report contains these columns: Month Year Gross sales Amount

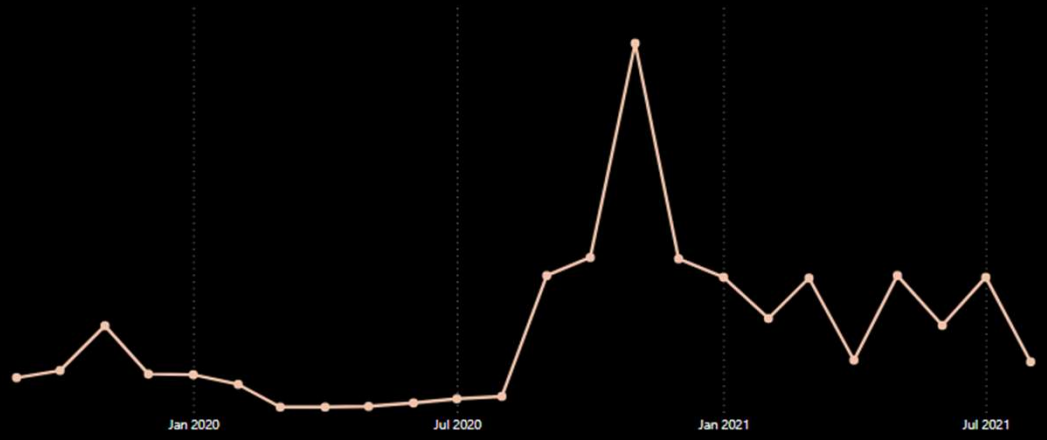
SQL Query :

```
select c.customer, year(date) year , monthname(date) month,
round(sum(sold_quantity * gross_price /1000000),2) as Gross_sales_Amount
from dim_customer c
join fact_sales_monthly s
on c.customer_code = s.customer_code
join fact_gross_price p
on p.product_code = s.product_code
where c.customer = "Atliq Exclusive"
group by month , year
order by year
```

Output :

customer	year	month	Gross_sales_Amount
Atliq Exclusive	2019	September	9.09
Atliq Exclusive	2019	October	10.38
Atliq Exclusive	2019	November	15.23
Atliq Exclusive	2019	December	9.76
Atliq Exclusive	2020	January	9.58
Atliq Exclusive	2020	February	8.08
Atliq Exclusive	2020	March	0.77
Atliq Exclusive	2020	April	0.80
Atliq Exclusive	2020	May	1.59
Atliq Exclusive	2020	June	3.43
Atliq Exclusive	2020	July	5.15
Atliq Exclusive	2020	August	5.64
Atliq Exclusive	2020	September	19.53
Atliq Exclusive	2020	October	21.02
Atliq Exclusive	2020	November	32.25
Atliq Exclusive	2020	December	20.41
Atliq Exclusive	2021	January	19.57
Atliq Exclusive	2021	February	15.99
Atliq Exclusive	2021	March	19.15
Atliq Exclusive	2021	April	11.48
Atliq Exclusive	2021	May	19.20
Atliq Exclusive	2021	June	15.46
Atliq Exclusive	2021	July	19.04
Atliq Exclusive	2021	August	11.32

Visualization



Request 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

SQL Query :

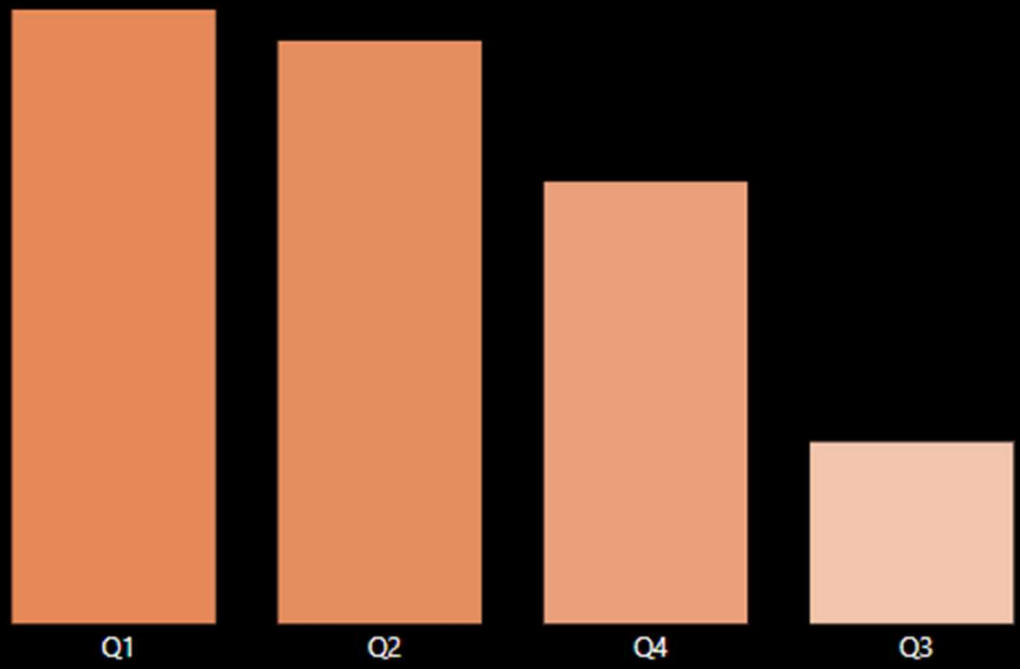
```
select sum(sold_quantity) as Total_sold_quantity,
case when month(date) in (09,10,11) THEN  "Q1"
when month(date) in (12,01,02)  THEN  "Q2"
when month(date) in (03,04,05)  THEN  "Q3"
when month(date) in (06,07,08)  THEN  "Q4"
END as Quarter
from fact_sales_monthly
Where fiscal_year = "2020"
group by Quarter
order by  Total_sold_quantity desc;
```

Output :

Total_sold_quantity	Quarter
7005619	Q1
6649642	Q2
5042541	Q4
2075087	Q3

Atliq Exclusive operates its Business in 8 Different market in APAC region.

Visualization



Request 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

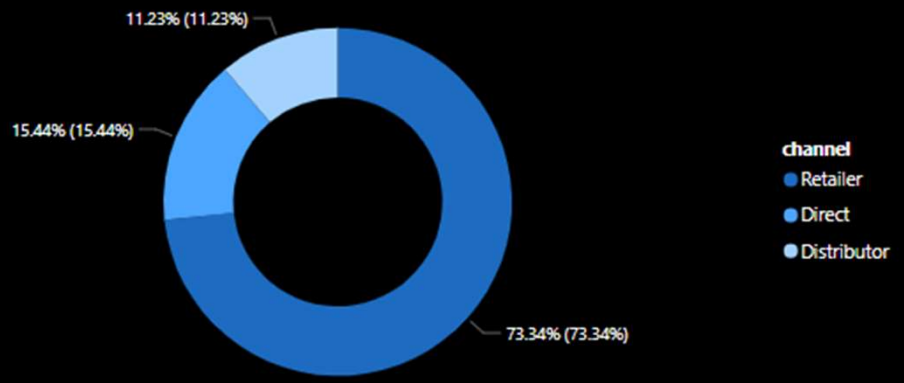
SQL Query :

```
With ct as (select c.channel , round(sum(s.sold_quantity*p.gross_price)/1000000, 3) AS gross_sales_mln
 from dim_customer c
 join fact_sales_monthly s
 on c.customer_code = s.customer_code
 join fact_gross_price p
 on p.product_code = s.product_code
 and p.fiscal_year = s.fiscal_year
where s.fiscal_year = "2021"
group  by c.channel
ORDER BY gross_sales_mln DESC)

,ct1 as(select sum(gross_sales_mln) as total_gross_sales_mln from ct)

select ct.*,
round((gross_sales_mln*100/total_gross_sales_mln),2) as percentage
from ct join
ct1;
```

Output :

channel	gross_sales_mln	percentage
Retailer	1219.082	73.23
Direct	257.532	15.47
Distributor	188.026	11.30

Visualization



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, division product_code

SQL Query :

```
with cte as (select p.division ,p.product,p.product_code,sum(s.sold_quantity) total_sold_qty
from dim_product p
join fact_sales_monthly s
on p.product_code = s.product_code
where fiscal_year = "2021"
group by p.product_code)

select * from(
select cte.*,
dense_rank() over(partition by division order by total_sold_qty desc) as drnk
from cte) x
where  x.drnk <= 3 ;
```

Output :

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

Visualization