AtliQ Technologies

Ad-Hoc Insights

Consumer Goods

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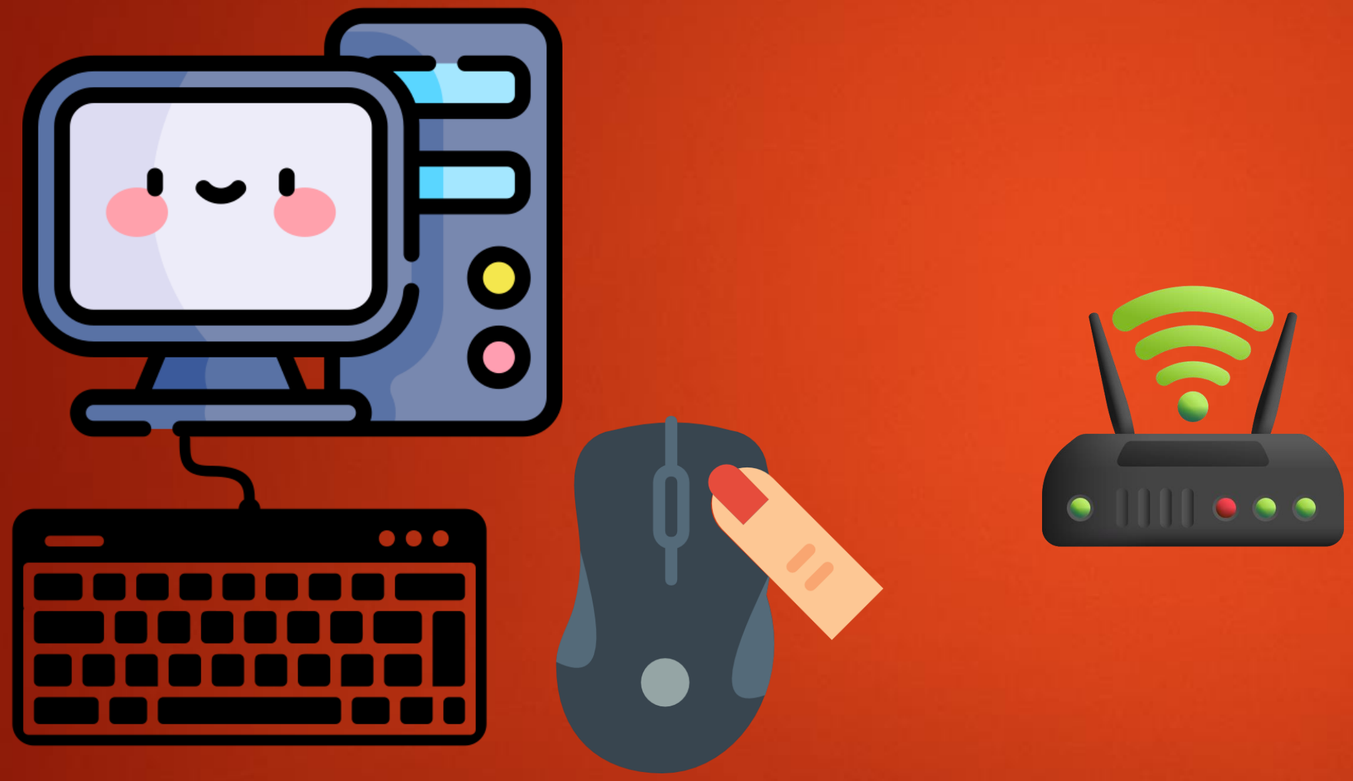
AtliQ Technologies

Company Overview

AtliQ Hardware is a leading provider of high-quality computer peripherals, including PCs, mouse, keyboards etc.

AtliQ Hardware is one of the leading computer hardware producers in India and across the globe.

Products



Personal Computers

Peripherals & Accessories

Networking & Storage Devices

Problem Statement

AtliQ Hardware management identified a gap in insights for making quick, data-driven decisions.

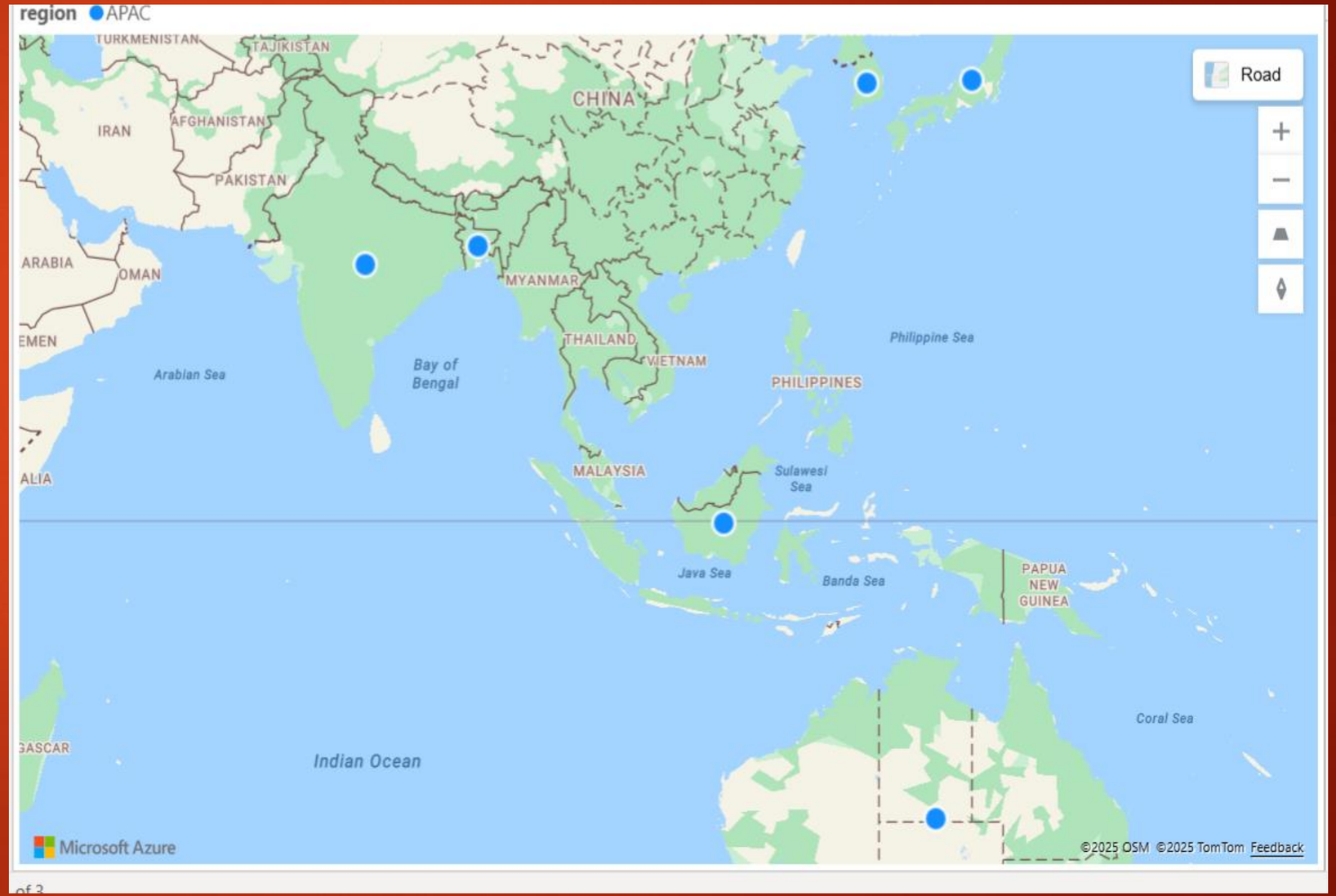
Decisions are made to expand the **Data Analytics Team** with several junior Data Analysts.

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

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

Result Grid | Filter Rows:

market
India
Indonesia
Japan
Philiphines
South Korea
Australia
Newzealand
Bangladesh

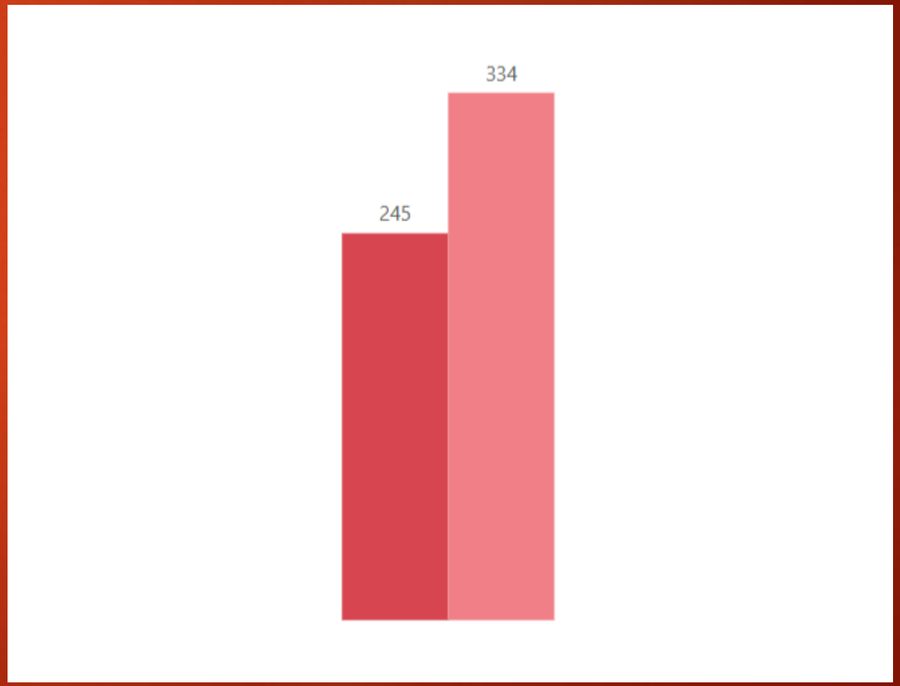


2. What is the percentage of unique product increase in 2021 vs. 2020?

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

	unique_product_2020	unique_product_2021	percentage_chg
▶	245	334	36.33%

```sql
with Product_count_2020  as
(
select count( distinct product_code) unique_product_2020
 from dim_product
join dim_date
using (product_code)
where fiscal_year = '2020'
),
product_count_2021 as
(
select count( distinct product_code) unique_product_2021
 from dim_product
join dim_date
using(product_code)
where fiscal_year = '2021'
)
select unique_product_2020,
      unique_product_2021,
concat(round((unique_product_2021 - unique_product_2020)/unique_product_2020 * 100 ,2), "%"  )  percentage_chg
from Product_count_2020, Product_count_2021
```



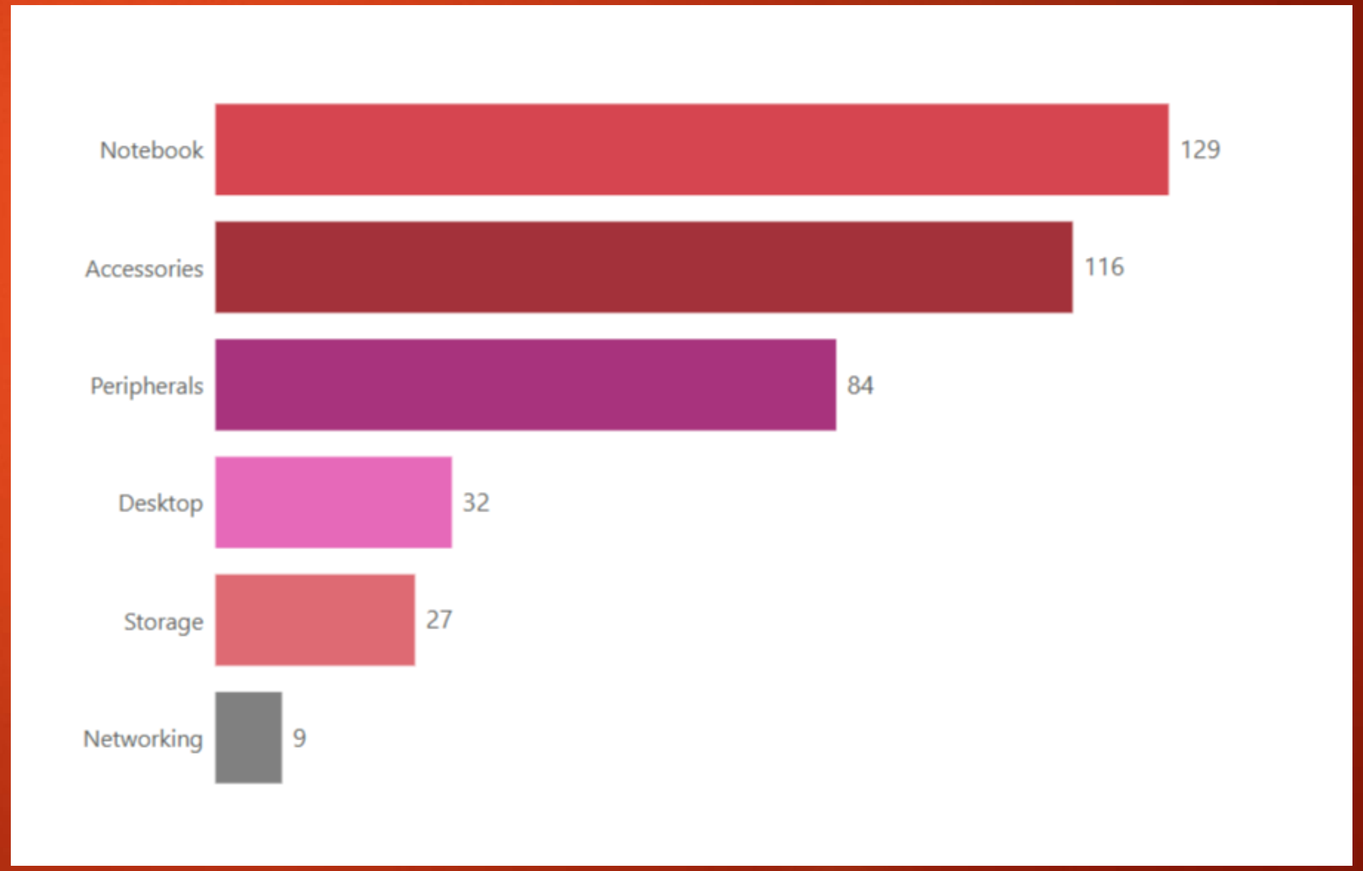
3. Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

Result Grid | Filter Rows:

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

Limit to 1000 rows

```
1  select segment, count(distinct product_code) product_count
2  from dim_product
3  group by segment
4  order by product_count desc;
```

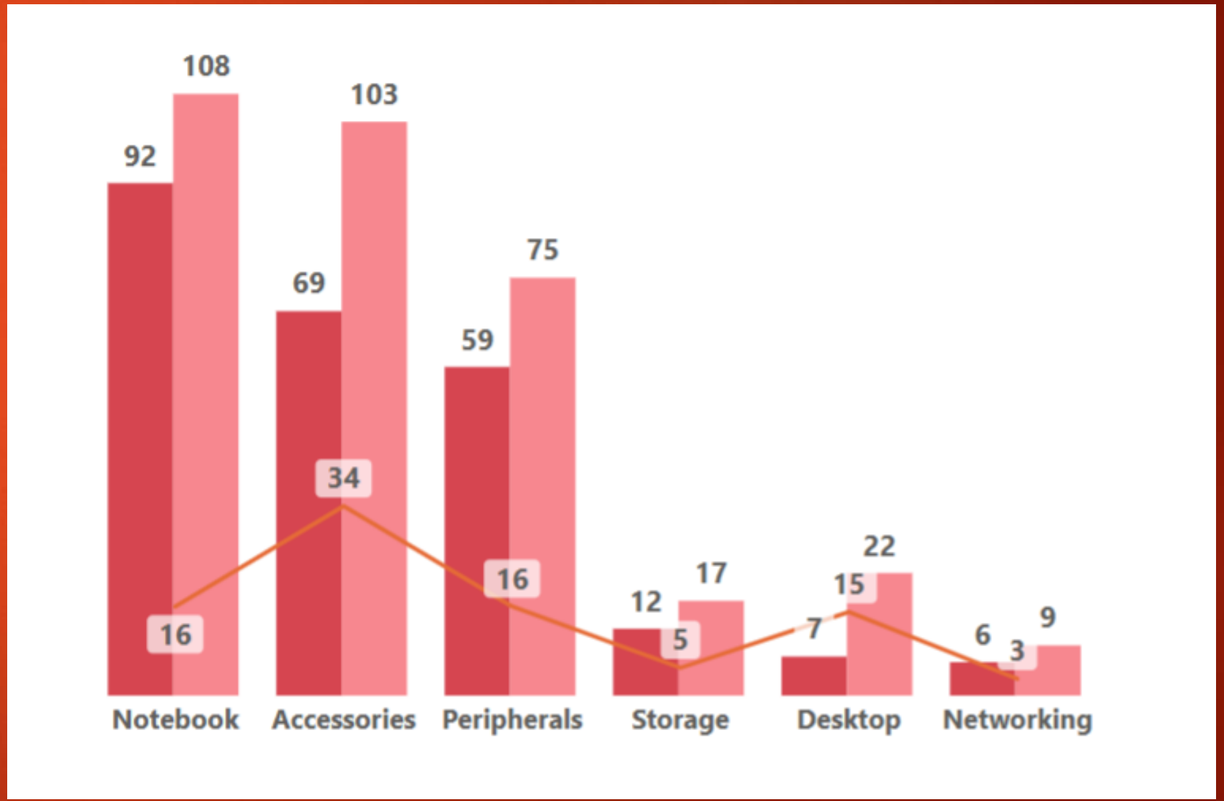


4. Which segment had the most increase in unique products in 2021 vs 2020?

segment	product_count_2020	product_count_2021	Difference	Difference
Notebook	92	108	16	17.39%
Accessories	69	103	34	49.28%
Peripherals	59	75	16	27.12%
Storage	12	17	5	41.67%
Desktop	7	22	15	214.29%
Networking	6	9	3	50.00%

Limit to 1000 rows

```sql
with product_count_2020 as
(
select segment, count(distinct product_code)  product_count_2020
from dim_product
join dim_date
using(product_code)
where fiscal_year = 2020
group by segment
order by product_count_2020 desc
),
product_count_2021 as
(
select segment, count(distinct product_code)  product_count_2021
from dim_product
join dim_date
using(product_code)
where fiscal_year = 2021
group by segment
order by product_count_2021 desc
)
select segment,product_count_2020,product_count_2021,
product_count_2021-product_count_2020 as Difference,
concat(round((product_count_2021-product_count_2020)/product_count_2020*100,2),"%") as "Difference"
from product_count_2020
join product_count_2021
using (segment)
```

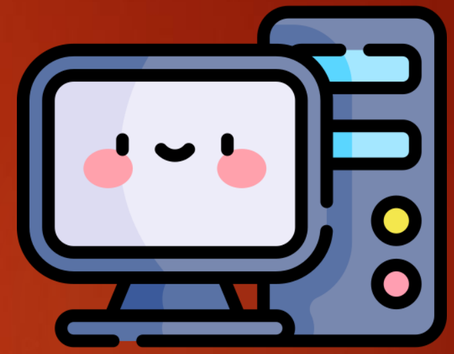


5. Get the products that have the highest and lowest manufacturing costs

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

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

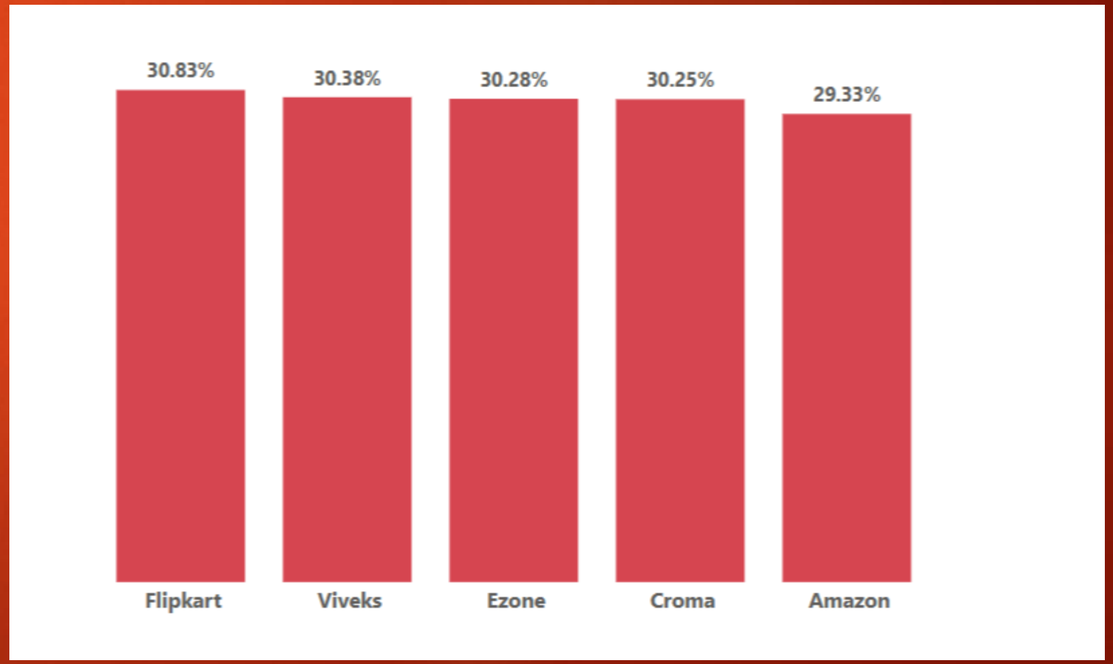
```sql
Select product_code, product,manufacturing_cost
from dim_product
join fact_manufacturing_cost
using (product_code)
where manufacturing_cost in
((select max(manufacturing_cost) from fact_manufacturing_cost),
(select min(manufacturing_cost) from fact_manufacturing_cost ))

```



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
70002017	Atliq Exclusive	7.03
70002018	Atliq e Store	20.61
90002001	Reliance Digital	21.19
90002002	Croma	30.25
90002003	Ezone	30.28
90002005	Lotus	27.02
90002006	Viveks	30.38
90002007	Girias	25.08
90002009	Flipkart	30.83
90002010	Ebay	22.59
90002011	Atliq Exclusive	27.93
90002013	Electricalslytical	22.53
90002014	Expression	20.57
90002015	Propel	20.04
90002004	Vijay Sales	27.53
90002008	Amazon	22.07
90002012	Electricalsocity	19.57
90002016	Amazon	29.33

```sql
select distinct c.customer_code, customer, concat(round (avg(pre_invoice_discount_pct)*100,2), '%') average_discount_percentage
from dim_customer c
join dim_date d
using(customer_code)
join fact_pre_invoice_deductions p
on p.customer_code = c.customer_code
and d.fiscal_year = p.fiscal_year
where market = "India"
and d.fiscal_year = 2021
group by c.customer_code, customer
```

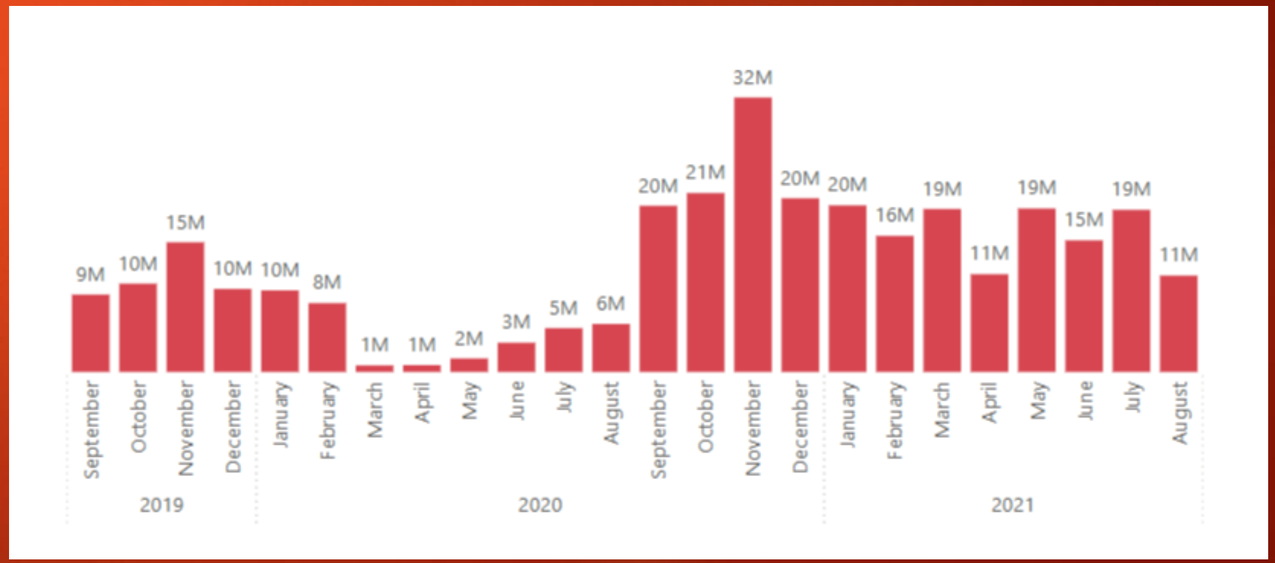


7. Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month. This analysis helps to get an idea of low and high-performing months and take strategic decisions.

Month	Year	Gross Sales Amount
9	2020	45145284.69
10	2020	56725493.59
11	2020	78672039.26
12	2020	83494456.15
1	2020	45415789.27
2	2020	43971472.84
3	2020	5577084.51
4	2020	20610700.47
5	2020	26235106.59
6	2020	40089770.28
7	2020	44100528.66
8	2020	45908045.61
9	2021	121243080.27
10	2021	153024860.65
11	2021	207219684.33
12	2021	219622274.92
1	2021	120950476.59
2	2021	117169419.82
3	2021	122178892.44
4	2021	122379611.85
5	2021	120336816.45
6	2021	116555261.50
7	2021	122485921.86

Limit to 1000 rows

```sql
SELECT
    MONTH(date) AS "Month",
    fiscal_year AS "Year",
    ROUND(SUM(gross_price * sold_quantity), 2) AS "Gross Sales Amount"
FROM fact_gross_price gp
JOIN fact_sales_monthly fsm
    USING (product_code, fiscal_year)
JOIN dim_customer
    USING (customer_code)
GROUP BY MONTH(date), fiscal_year;
```

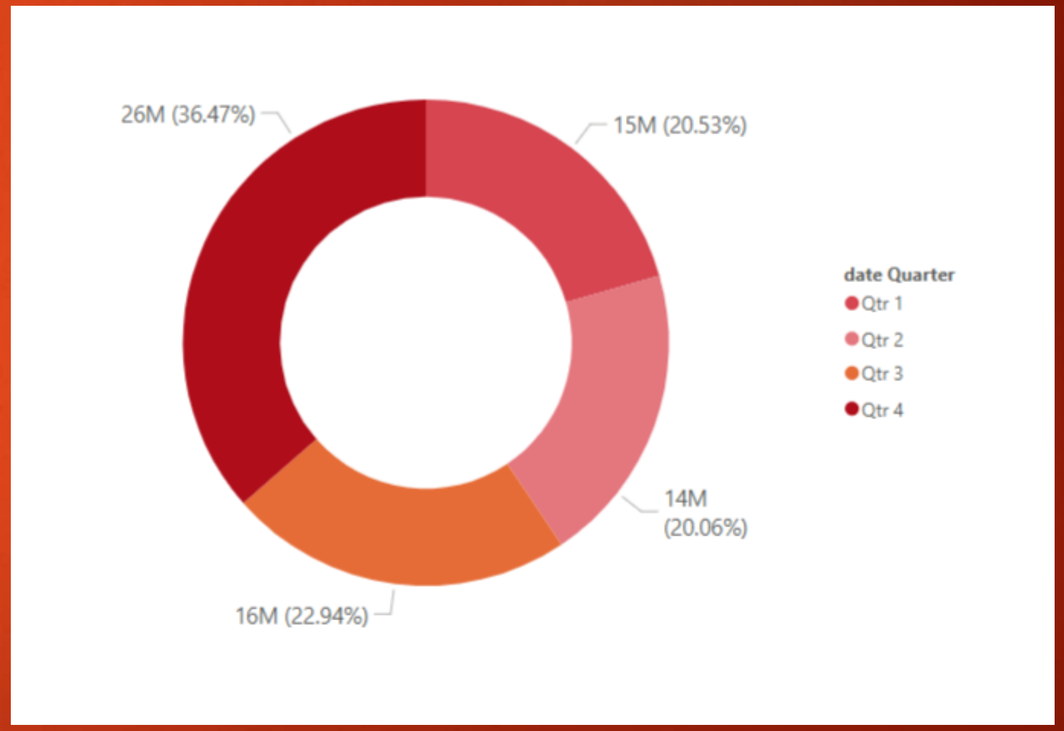


8. In which quarter of 2020, got the maximum total_sold_quantity?

```sql
SELECT
    QUARTER(date) AS "Quarter",
    SUM(sold_quantity) AS total_sold_quantity
FROM fact_sales_monthly
GROUP BY QUARTER(date)
ORDER BY total_sold_quantity DESC;
```

Result Grid | Filter Rows:

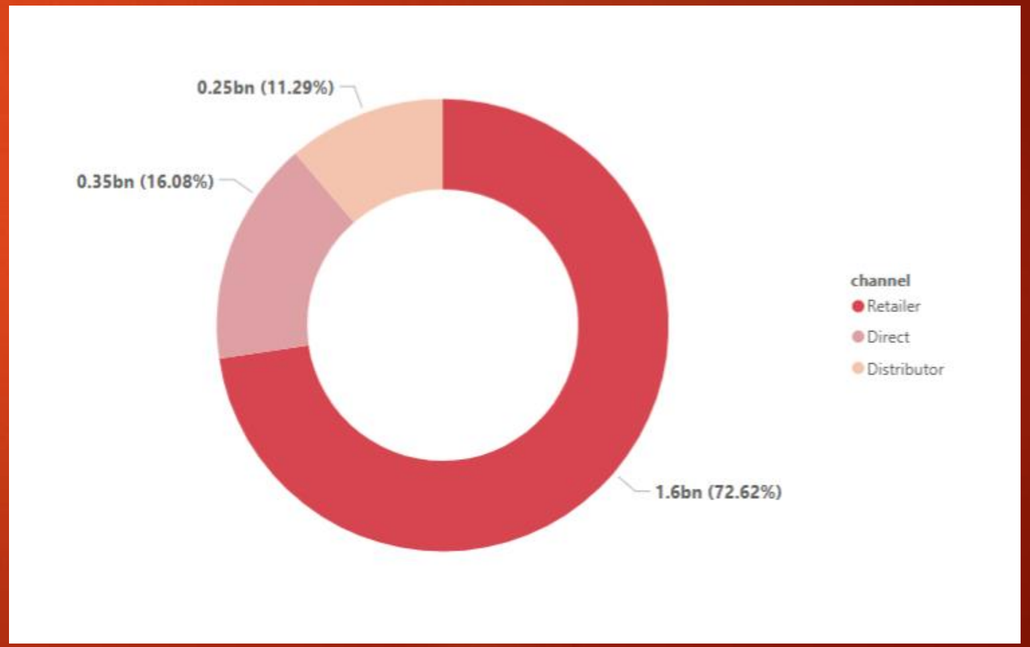
Quarter	total_sold_quantity
4	25872947
3	16271564
1	14565784
2	14227176



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

channel	gross_sales_mln	percentage
Retailer	763.45	70.17%
Distributor	184.49	16.96%
Direct	140.09	12.88%

```sql
WITH cte AS (
    SELECT
        channel,
        SUM(ROUND((sold_quantity * gross_price) / 1000000, 2)) AS gross_sales_mln
    FROM dim_customer c
    JOIN fact_sales_monthly fsm USING (customer_code)
    JOIN fact_gross_price p
        ON fsm.product_code = p.product_code
        AND fsm.fiscal_year = p.fiscal_year
    WHERE p.fiscal_year = 2021
    GROUP BY channel
)
SELECT
    channel,
    gross_sales_mln,
    CONCAT(ROUND(100 * gross_sales_mln / SUM(gross_sales_mln) OVER(), 2), '%') AS percentage
FROM cte
ORDER BY gross_sales_mln DESC;
```



10. Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021?

```sql
WITH cte1 AS (
SELECT
c.product_code, division, product,
sum(sold_quantity) AS total_sold_quantity,
DENSE_RANK() OVER (PARTITION BY division ORDER
BY sum(sold_quantity) DESC) AS rank_order
FROM dim_product c
JOIN fact_sales_monthly s
ON c.product_code = s.product_code
WHERE fiscal_year = 2021
GROUP BY division,c.product_code,product)
SELECT * FROM cte1
WHERE rank_order <4;
```

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

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