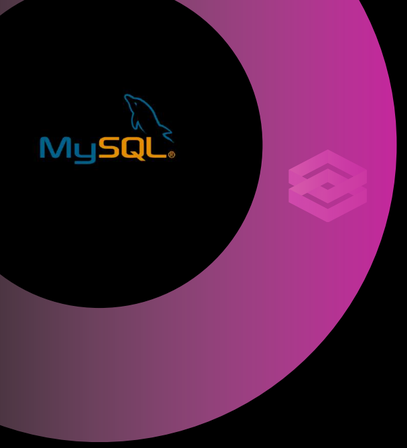

AtliQ Hardwares

CONSUMER GOODS AD-HOC INSIGHTS

AtliQ Hardwares

Presented by
SANJAY POLAMARASETTI

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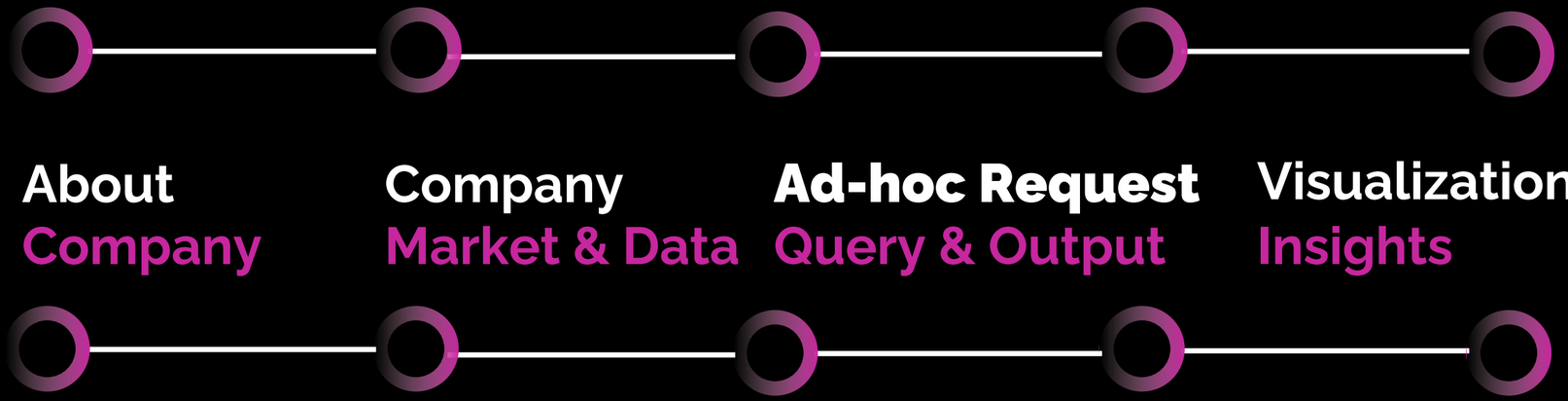
AtliQ Hardwares

Content Agenda



About
Company

Company
Market & Data

Ad-hoc Request
Query & Output

Visualizations &
Insights

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AtliQ Hardwares

Company Overview

- Atliq Hardware, a leading computer hardware producer in India.
- Global presence with expansions in multiple countries.

Company Problem

- The management noticed that they do not get enough Insights.
- To make quick and smart data - informed decisions.

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AtliQ Hardwares

Company Decision/Challenge

- Tony Sharma, their data analytics director wanted to hire someone.
- The person should be good at both tech and soft skills.
- Decision to conduct an SQL challenge for holistic skill assesment

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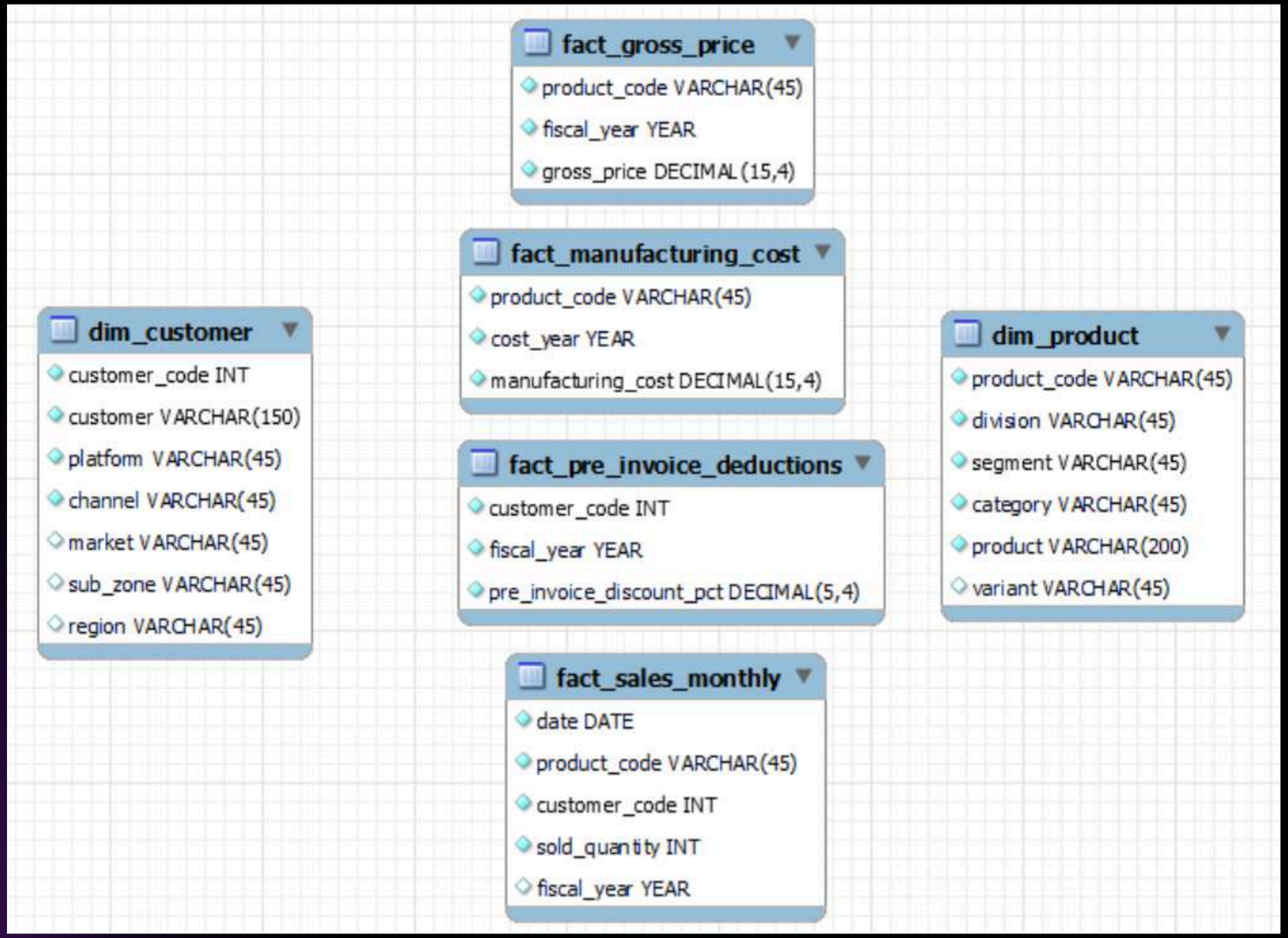
Input Data



Tools Used

Power BI

MySQL

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10 - Ad-Hoc-Requests

SQL CONSUMER GOODS

10- Ad-hoc-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_mln
- 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

Tools Used

Power BI

MySQL

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

```
select
        market from dim_customer
where customer = "Atliq Exclusive" and region = "APAC";
```

Output

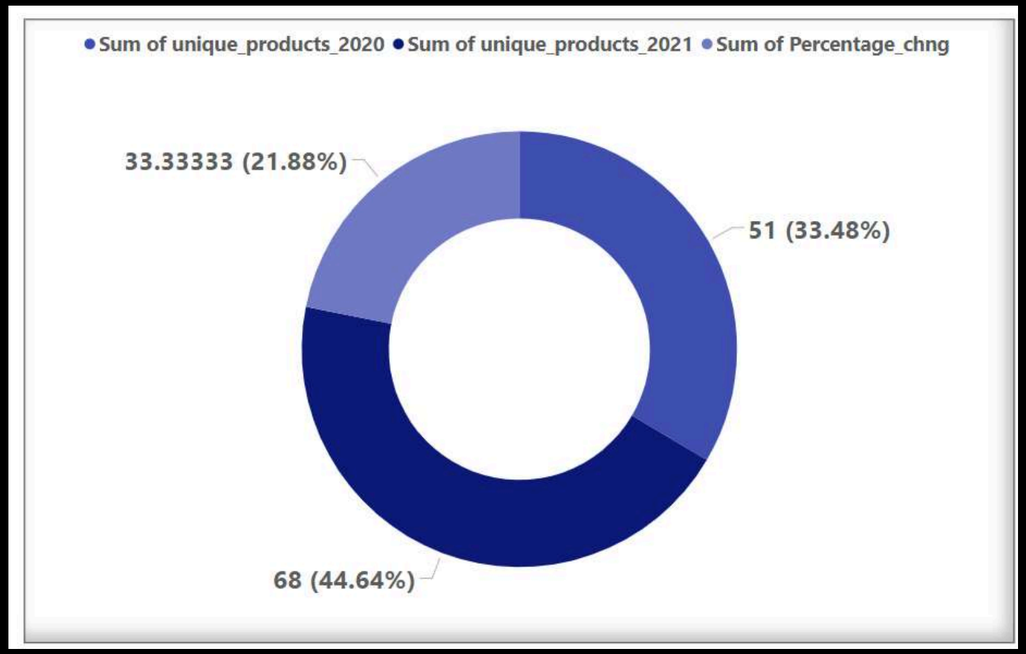
Result Grid | Filter Rows:

market
India
Indonesia
Japan
Philiphines
South Korea
Australia
Newzealand
Bangladesh
India

Next Slide

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

```
WITH CTE as(
    Select
        count(distinct dp.product) as unique_products,
        get_fiscal_year(fsm.date) as fiscal_year
    from dim_product dp
        JOIN fact_sales_monthly fsm
            ON dp.product_code = fsm.product_code
    where get_fiscal_year(fsm.date) IN(2020,2021)
    group by get_fiscal_year(fsm.date)),
CTE1 as(
select
        MAX(CASE WHEN fiscal_year = 2020 THEN unique_products END) AS unique_products_2020,
        MAX(CASE WHEN fiscal_year = 2021 THEN unique_products END) AS unique_products_2021,
        (MAX(CASE WHEN fiscal_year = 2021 THEN unique_products END) -
        MAX(CASE WHEN fiscal_year = 2020 THEN unique_products END))*100.0/
        MAX(CASE WHEN fiscal_year = 2020 THEN unique_products END) AS Percentage_chng from cte)
select * from CTE1;
```



Output

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

	unique_products_2020	unique_products_2021	Percentage_chng
▶	51	68	33.33333

Next Slide

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

```
select
      segment, count(distinct product) as product_count
 from dim_product
 group by segment
 order by product_count desc;
```

Output

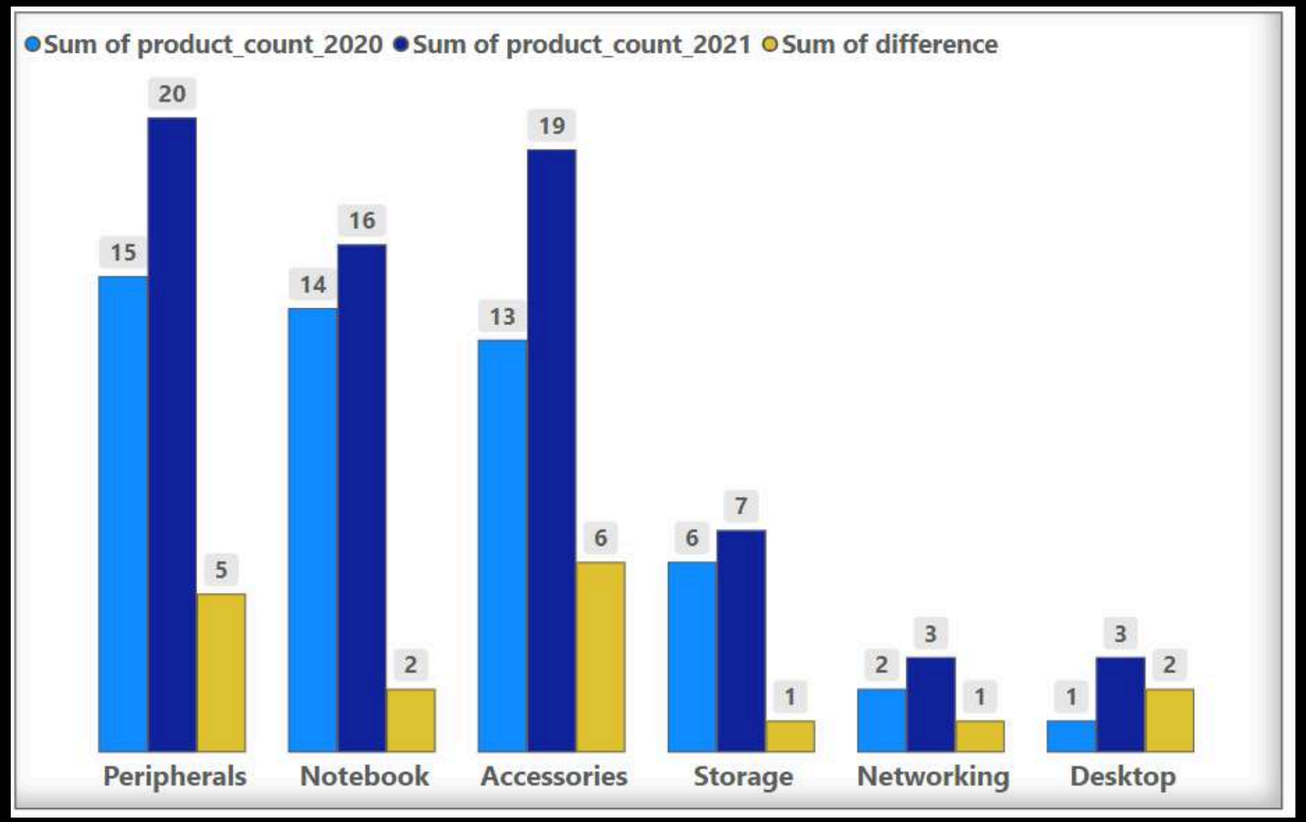
Result Grid | Filter Rows:

segment	product_count
Accessories	20
Peripherals	20
Notebook	17
Storage	9
Desktop	4
Networking	3

Next Slide

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
with CTE AS(
    select
          segment,
          count(distinct product) as product_count,
          get_fiscal_year(fsm.date) as fiscal_year
    from dim_product dp
         join fact_sales_monthly fsm
              ON dp.product_code = fsm.product_code
    where get_fiscal_year(fsm.date) IN (2020,2021)
    group by segment,get_fiscal_year(fsm.date)),
CTE1 AS(
     select segment,
          MAX(CASE WHEN fiscal_year = 2020 THEN product_count END) AS product_count_2020,
          MAX(CASE WHEN fiscal_year = 2021 THEN product_count END) AS product_count_2021,
          (MAX(CASE WHEN fiscal_year = 2021 THEN product_count END) -
          MAX(CASE WHEN fiscal_year = 2020 THEN product_count END)) AS difference
     from CTE group by segment)
select * from CTE1;
```



Output

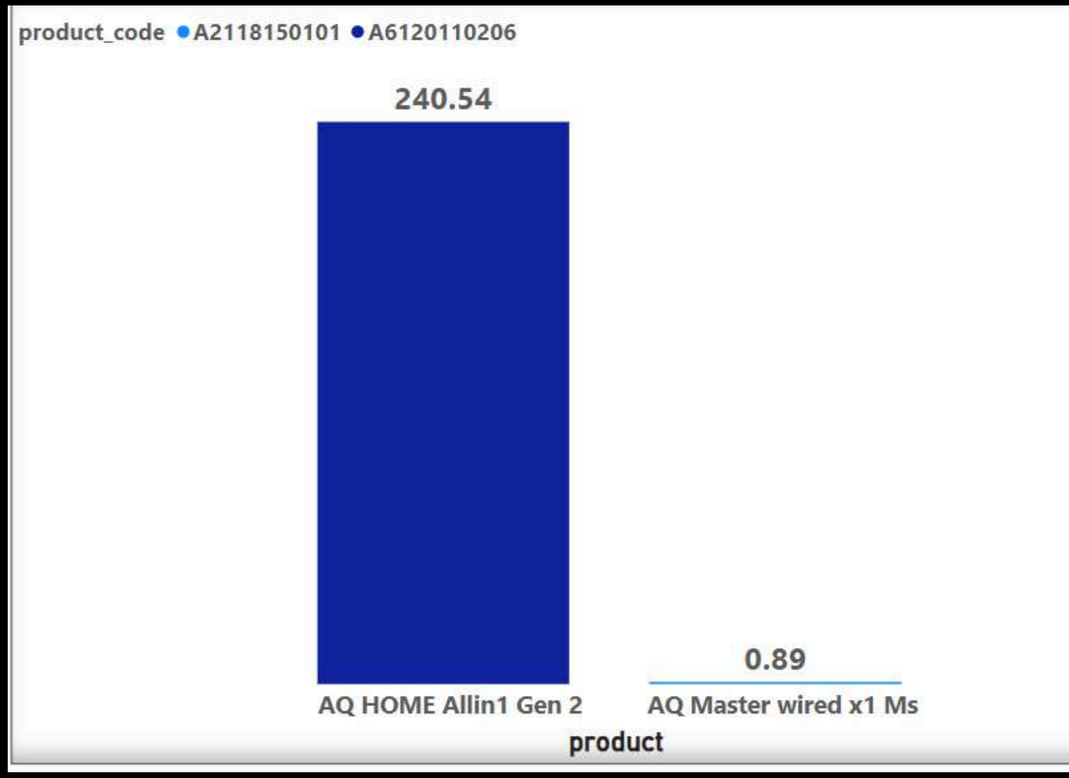
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

segment	product_count_2020	product_count_2021	difference
Accessories	13	19	6
Desktop	1	3	2
Networking	2	3	1
Notebook	14	16	2
Peripherals	15	20	5
Storage	6	7	1

Next Slide

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
select
      dp.product_code,
      dp.product,
      fmc.manufacturing_cost
from dim_product dp
     JOIN fact_manufacturing_cost fmc
         ON dp.product_code = fmc.product_code
where fmc.manufacturing_cost in(240.5364, 0.8920)
order by fmc.manufacturing_cost desc;
```



Output

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

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

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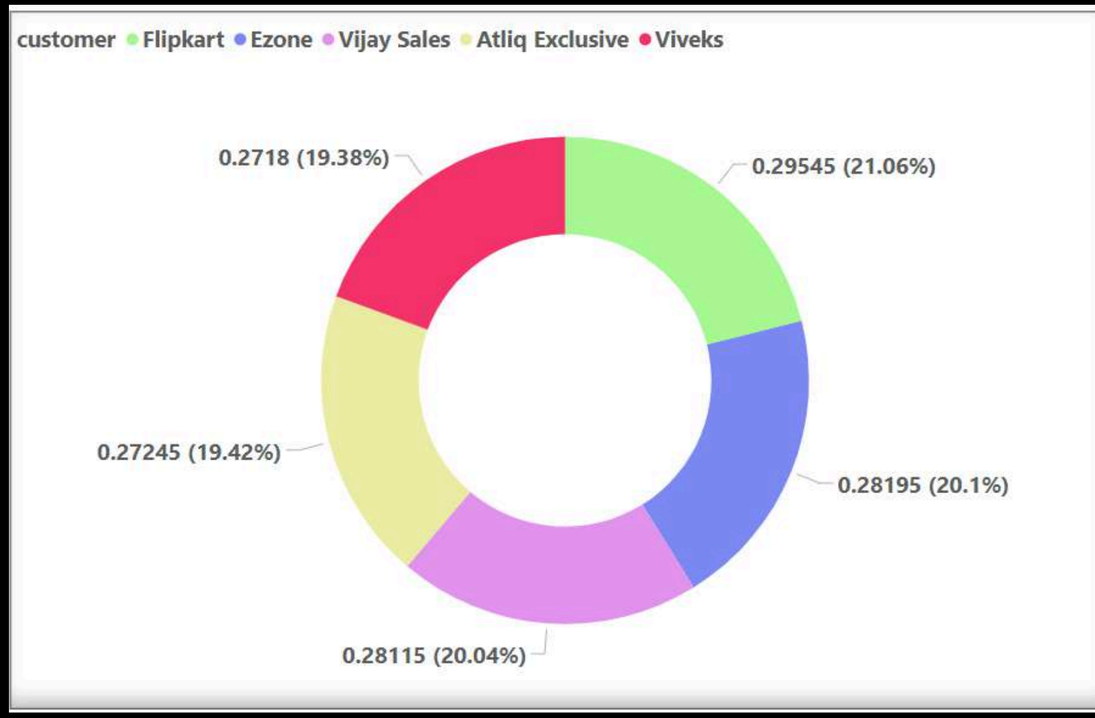
6. Generate a report which contains the top 5 customers who received an average high pre_invoice_discount_pct for the fiscal year 2021 and in the Indian market. The final output contains these fields, customer_code, customer, average_discount_percentage

```sql
select
      dc.customer_code,
      dc.customer,
      AVG(fpc.pre_invoice_discount_pct) as average_discount_percentage
from dim_customer dc
    JOIN fact_pre_invoice_deductions fpc
        ON dc.customer_code = fpc.customer_code
    JOIN fact_sales_monthly fsm
        ON fpc.customer_code = fsm.customer_code
where get_fiscal_year(fsm.date) = 2021 and dc.market ='India'
group by dc.customer_code, dc.customer
order by average_discount_percentage
desc limit 5;
```



Output

Result Grid | Filter Rows: | Export:

customer_code	customer	average_discount_percentage
90002009	Flipkart	0.29545000
90002003	Ezone	0.28195000
90002004	Vijay Sales	0.28115000
90002011	Atliq Exclusive	0.27245000
90002006	Viveks	0.27180000

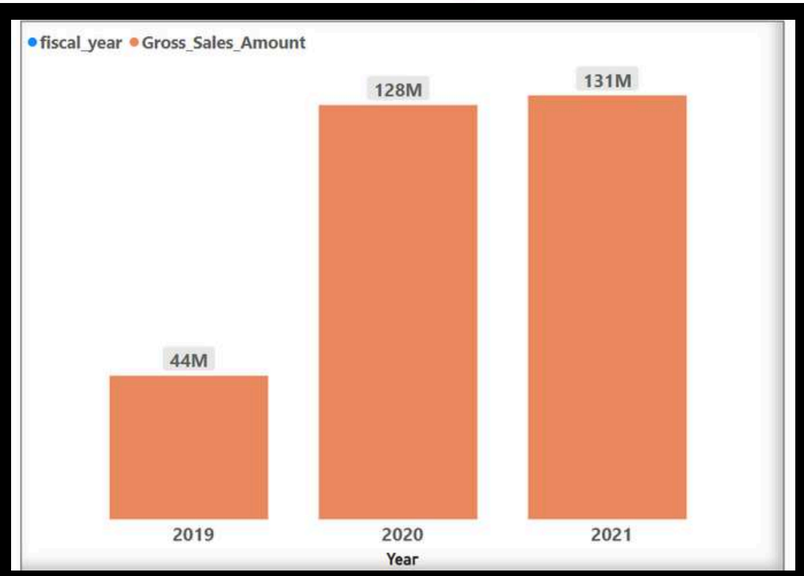
Next Slide

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
select
      date(fsm.date) as month,
      get_fiscal_year(fsm.date) as year,
      sum(sold_quantity * gross_price) as Gross_Sales_Amount
from fact_gross_price fgp
     JOIN fact_sales_monthly fsm
          ON fgp.product_code = fsm.product_code
     JOIN dim_customer dc
          ON fsm.customer_code = dc.customer_code
where customer = "Atliq Exclusive"
group by year, fsm.date
order by Gross_Sales_Amount desc;
```

Output

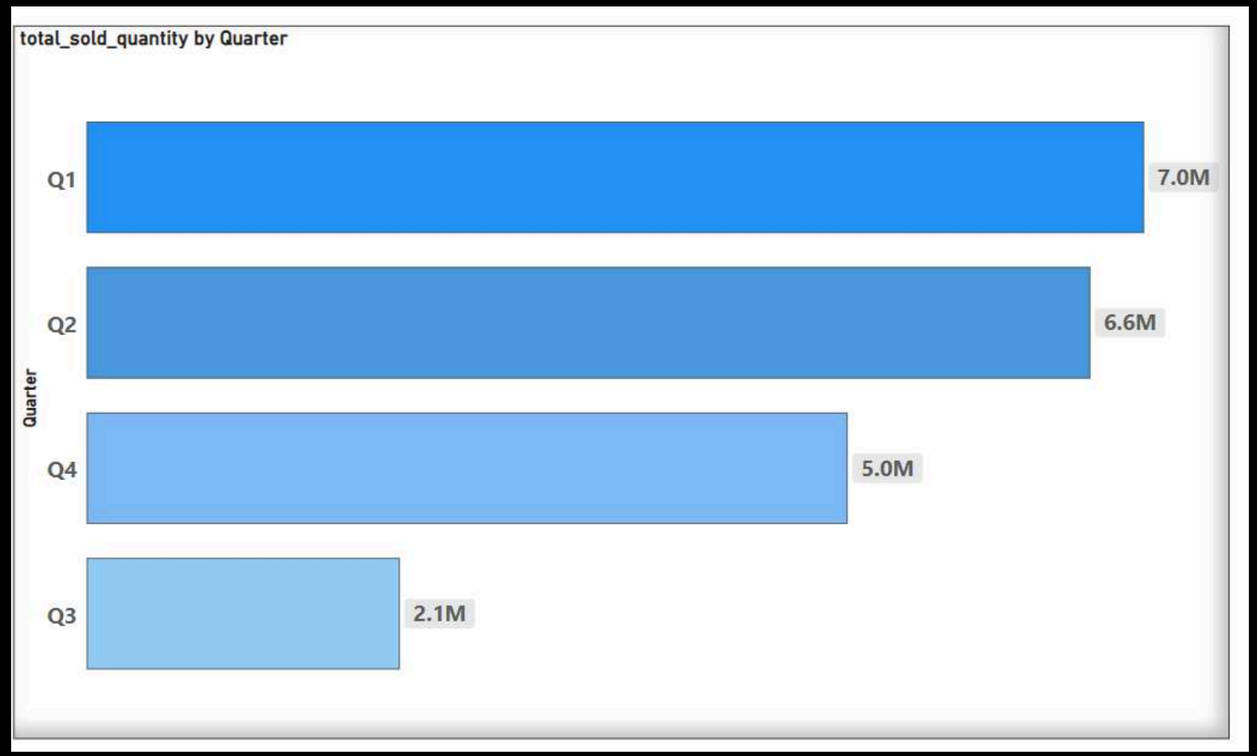
Year	Month	fiscal_year	Gross_Sales_Amount
2019	September	2020	90,92,670.34
2019	October	2020	1,03,78,637.60
2019	November	2020	1,52,31,894.97
2019	December	2020	97,55,795.06
2020	January	2020	95,84,951.94
2020	February	2020	80,83,995.55
2020	March	2020	7,66,976.45
2020	April	2020	8,00,071.95
2020	May	2020	15,86,964.48
2020	June	2020	34,29,736.57
2020	July	2020	51,51,815.40
2020	August	2020	56,38,281.83
2020	September	2021	1,95,30,271.30
2020	October	2021	2,10,16,218.21
2020	November	2021	3,22,47,289.79
2020	December	2021	2,04,09,063.18
2021	January	2021	1,95,70,701.71
2021	February	2021	1,59,86,603.89
2021	March	2021	1,91,49,624.92
2021	April	2021	1,14,83,530.30
2021	May	2021	1,92,04,309.41
2021	June	2021	1,54,57,579.66
2021	July	2021	1,90,44,968.82
2021	August	2021	1,13,24,548.34
Total		**48492**	**30,39,26,501.67**



Next Slide

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
with CTE AS(
		select
			get_fiscal_quarter(date) as Quarter,
			sum(sold_quantity) as total_sold_quantity
		from fact_sales_monthly
		where get_fiscal_year(date) = 2020
		group by get_fiscal_quarter(date)
)
select
	Quarter,
	total_sold_quantity
from CTE
order by total_sold_quantity desc;
```



Output

Result Grid | Filter Rows:

Quarter	total_sold_quantity
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087

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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
with CTE AS(
		select
			get_fiscal_quarter(date) as Quarter,
			sum(sold_quantity) as total_sold_quantity
		from fact_sales_monthly
		where get_fiscal_year(date) = 2020
		group by get_fiscal_quarter(date)
)
select
	Quarter,
	total_sold_quantity
from CTE
order by total_sold_quantity desc;
```

Output

Result Grid | Filter Rows:

channel	gross_sales_mln	percentage
Retailer	1924.170	73.217
Direct	406.687	15.475
Distributor	297.176	11.308

Next Slide

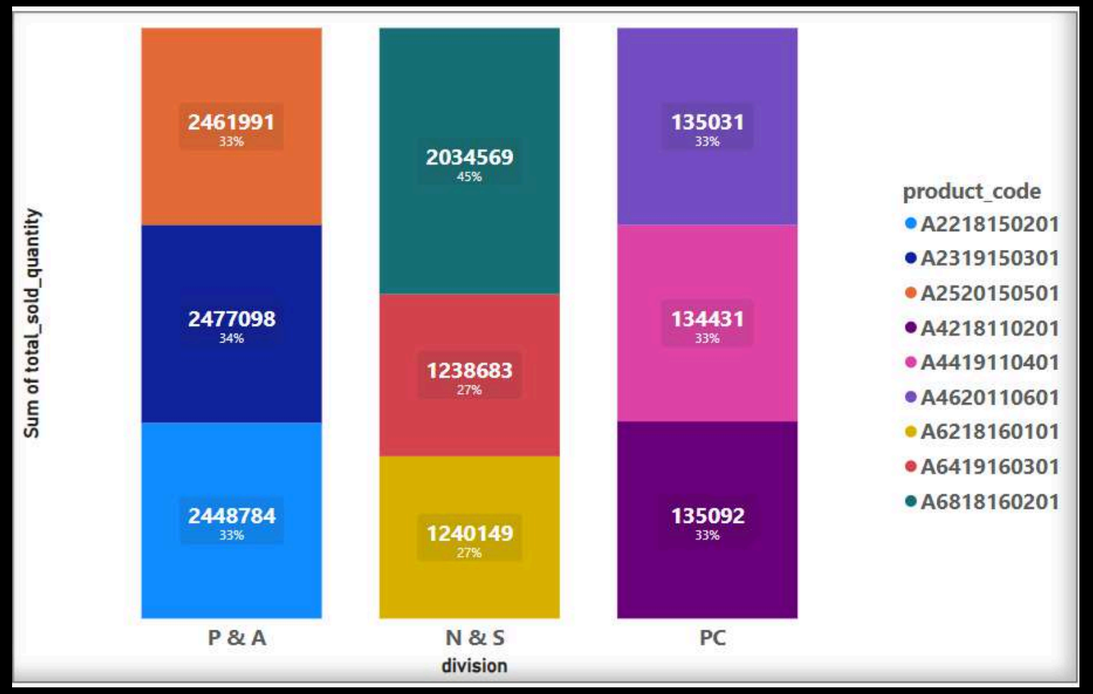
10. Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021? The final output contains these fields, division, product_code, product, total_sold_quantity, rank_order

```sql
with cte as(
            select
                   dp.division,
                   dp.product_code,
                   dp.product,
                   sum(sold_quantity) as total_sold_quantity
            from dim_product dp
                   JOIN fact_sales_monthly fsm
                        ON dp.product_code = fsm.product_code
            where get_fiscal_year(fsm.date) = 2021
            group by dp.product
            order by total_sold_quantity desc),
cte1 as(
        select *,
        dense_rank()  OVER(PARTITION BY division order by total_sold_quantity desc)as rank_order
        from cte)
select * from cte1 where rank_order <= 3;
```

Output

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

division	product_code	product	total_sold_quantity	rank_order
N & S	A6818160201	AQ Pen Drive DRC	2034569	1
N & S	A6218160101	AQ Digit SSD	1240149	2
N & S	A6419160301	AQ Clx1	1238683	3
P & A	A2319150301	AQ Gamers Ms	2477098	1
P & A	A2520150501	AQ Maxima Ms	2461991	2
P & A	A2218150201	AQ Master wireless x1 Ms	2448784	3
PC	A4218110201	AQ Digit	135092	1
PC	A4620110601	AQ Gen Y	135031	2
PC	A4419110401	AQ Elite	134431	3



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AtliQ Hardwares

Thank You!

SANJAY POLAMARASETTI