



CONSUMER GOODS AD-HOC INSIGHTS

PRESENTED BY: HARSHITHA PANUGANTI





OVERVIEW

Overview
of
Company

01

Dataset

02

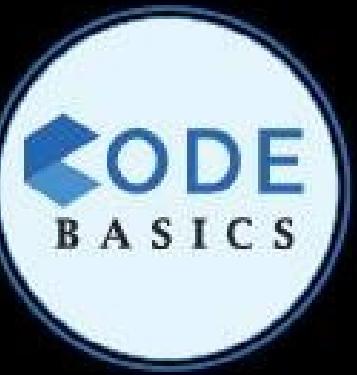
Problem
Statement

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Insights

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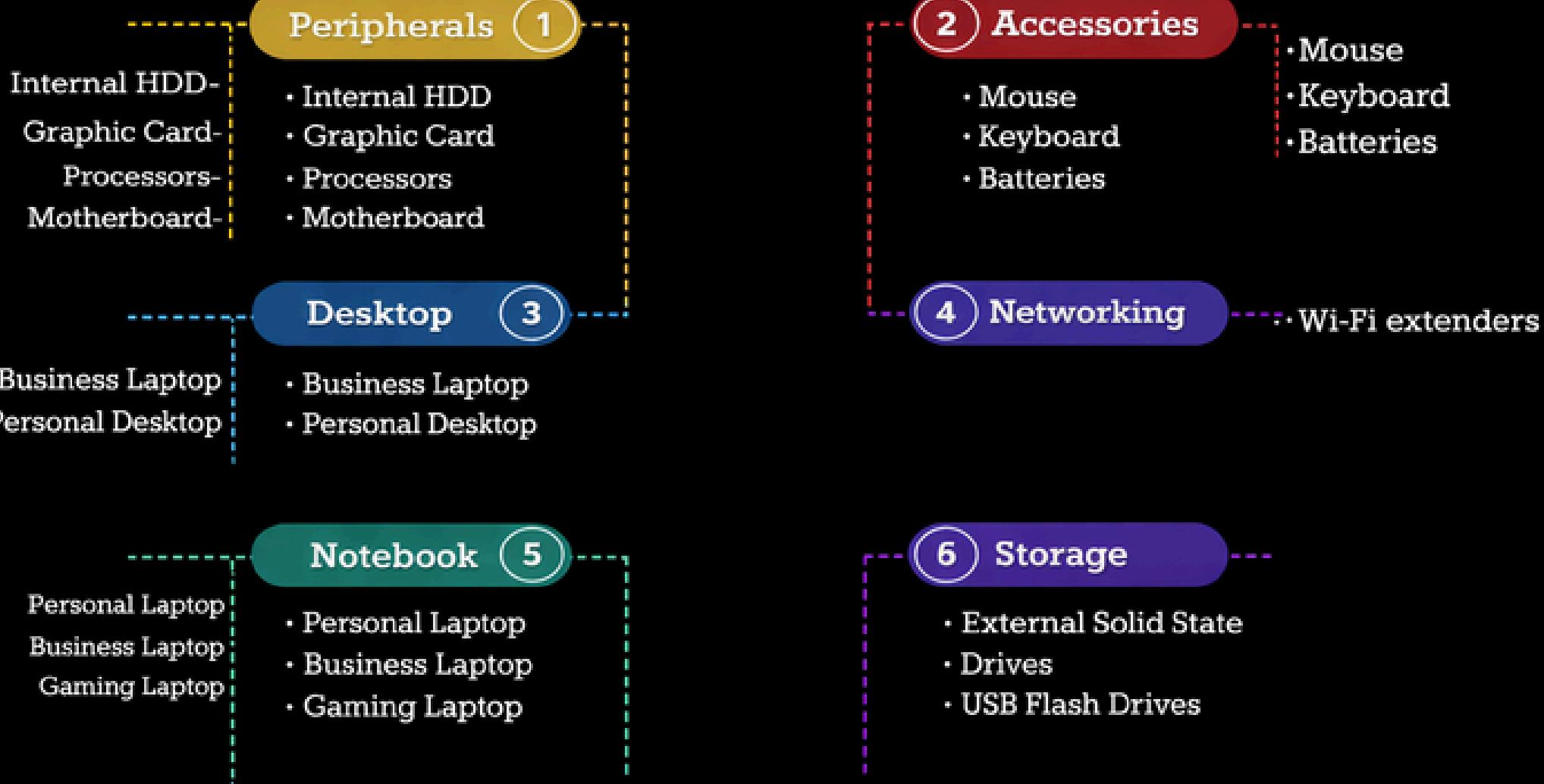
COMPANY DETAILS

- Atliq Hardware is one of the leading computer hardware producers in India and expanded in other countries too.
- Manufactures products under 3 major divisions, i.e., Peripherals & Accessories, PC, Networking & Storage
- The management team noticed that they do not get enough insights to make quick decisions.

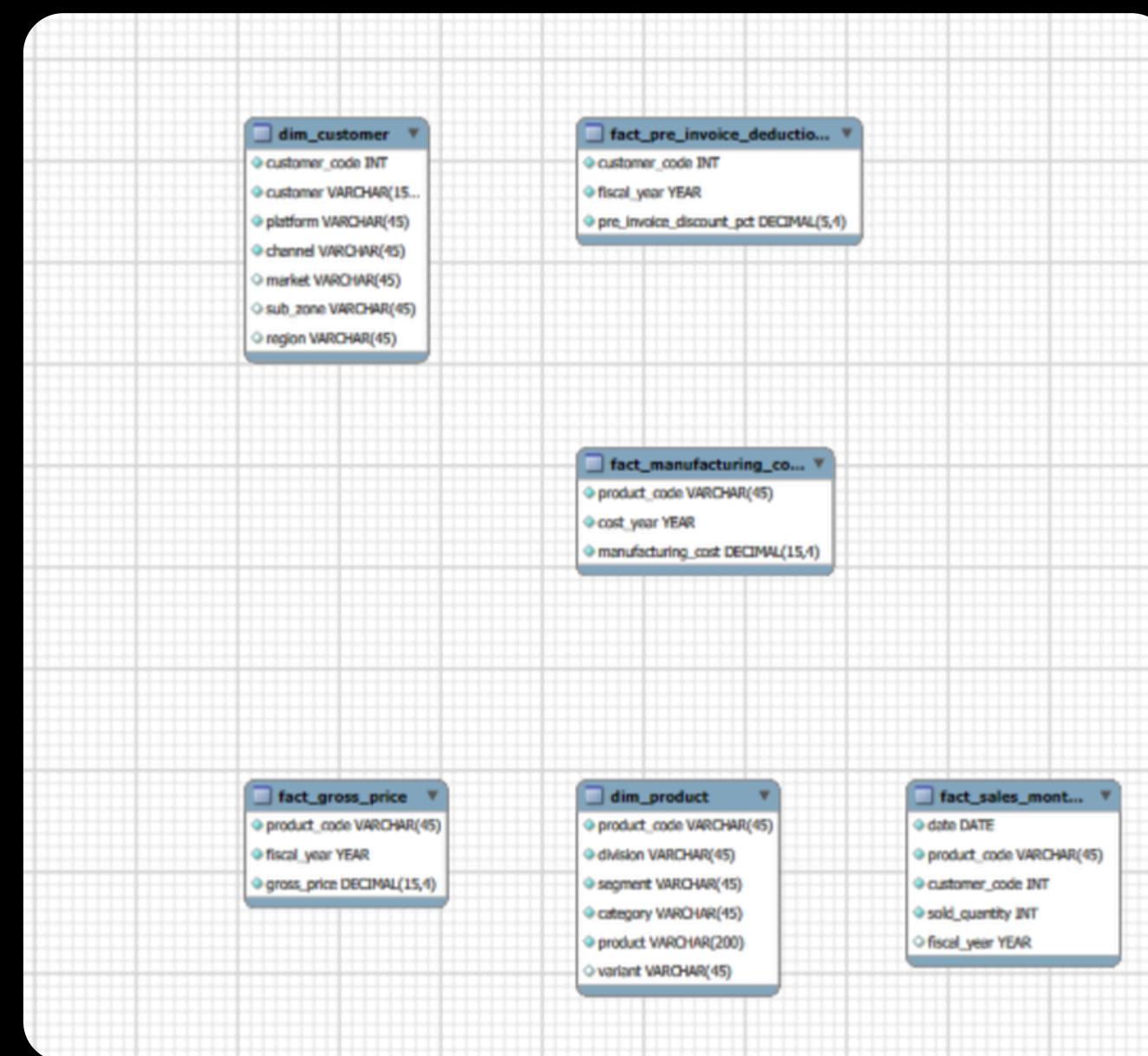
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PRODUCTS



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Codebasics SQL Challenge

Requests:

- Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.
- 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
- 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
- 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
- Get the products that have the highest and lowest manufacturing cost. The final output should contain these fields,
product_code
product
manufacturing_cost
- 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
- 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
- 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
- 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
- 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





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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'  
GROUP BY market  
order by market;
```

market
Australia
Bangladesh
India
Indonesia
Japan
Newzealand
Philiphines
South Korea



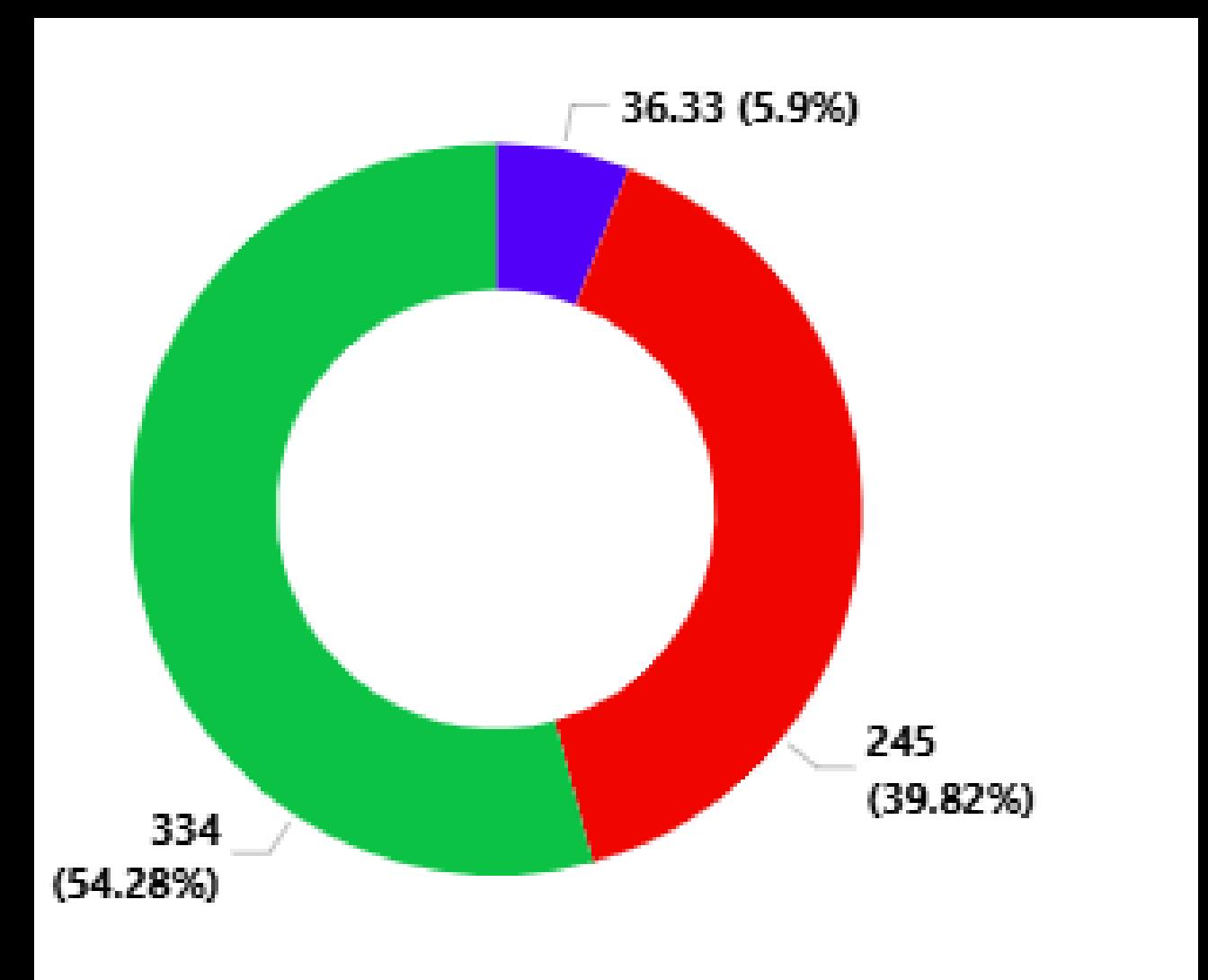
INSIGHTS

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

```
select p_20.a as unique_product_2020,  
p_21.b as unique_products_2021, round((b-a)*100/a,2) as percentage_chg from(  
select count(distinct(product_code)) as a  
from fact_sales_monthly where fiscal_year = 2020) p_20,(select count(distinct(product_code)) as b  
from fact_sales_monthly where fiscal_year = 2021) p_21;
```

Result Grid | Filter Rows: Export:

unique_product_2020	unique_products_2021	percentage_chg
245	334	36.33



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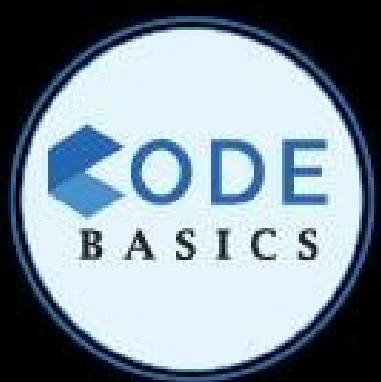
3. Provide a report with all the unique product counts for each segment and sort them in descending order of product counts. The final output contains 2 fields.

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

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



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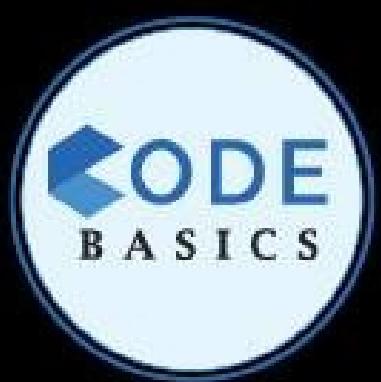
4. Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields.

```
with cte1 as
(select p.segment as a, count(distinct(fs.product_code))as b
from dim_product p, fact_sales_monthly fs where p.product_code = fs.product_code
group by fs.fiscal_year,p.segment
having fs.fiscal_year="2020"),
cte2 as (select p.segment as c,count(distinct(fs.product_code)) as d
from dim_product p, fact_sales_monthly fs where p.product_code = fs.product_code
group by fs.fiscal_year,p.segment
having fs.fiscal_year="2021")
select cte1.a as segment ,cte1.b as product_count_2020,cte2.d as product_count_2021,(cte2.d-cte1.b) as difference from cte1,cte2 where cte1.a = cte2.c
```

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



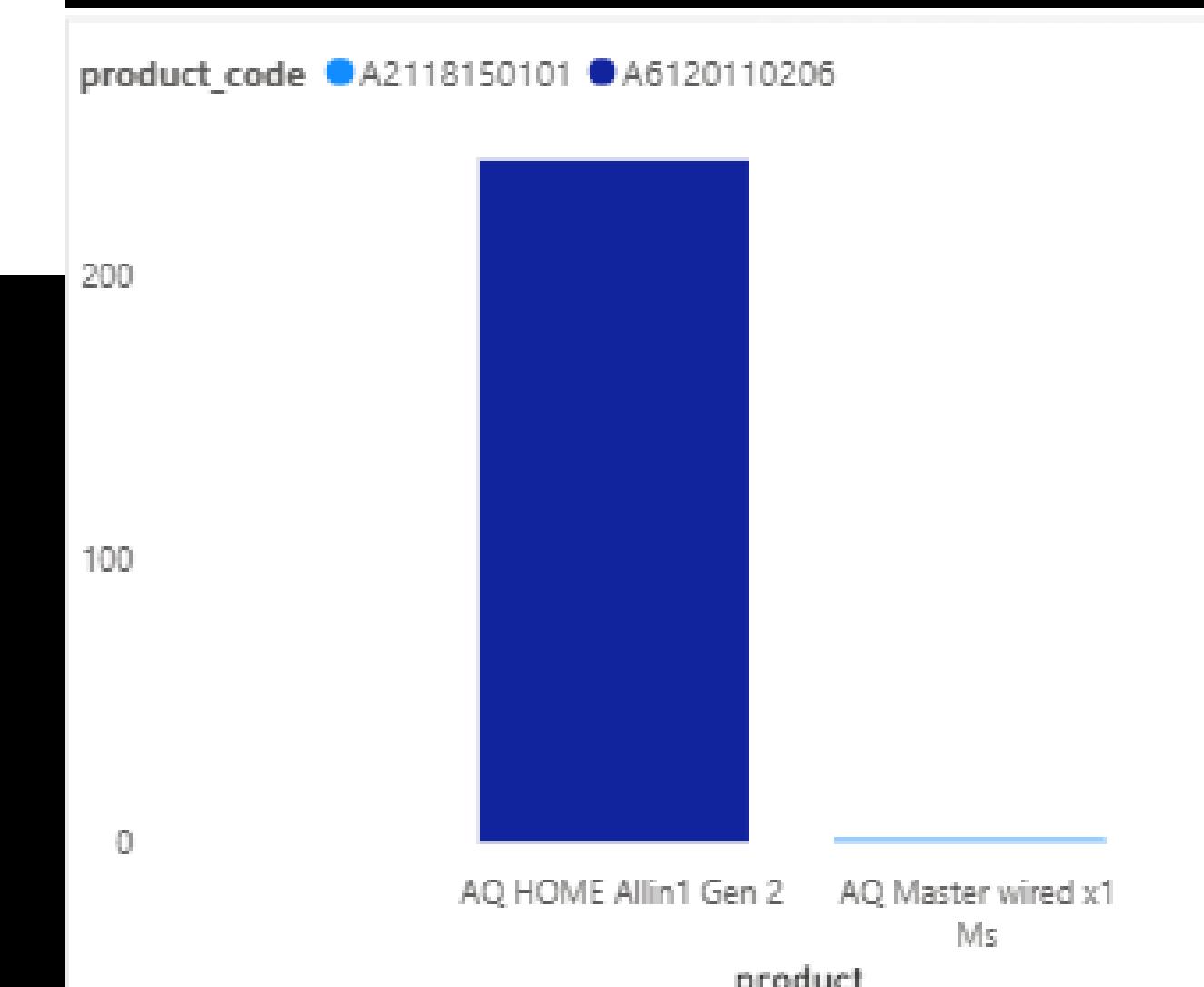
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5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields.

```
select f.product_code,p.product,f.manufacturing_cost from fact_manufacturing_cost f join
dim_product p on f.product_code = p.product_code where manufacturing_cost in(
select max(manufacturing_cost) from fact_manufacturing_cost union
select min(manufacturing_cost) from fact_manufacturing_cost)
order by manufacturing cost desc;
```

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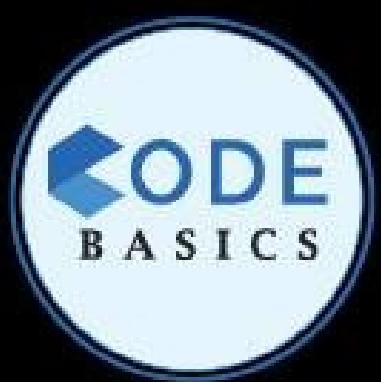
6. Generate a report which contains the top 5 customers who received an average high pre_invoice_discount_pct for the fiscal year 2021 and in the Indian market. The final output contains these fields.

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

customer_code	customer	average_discount_perce
90002009	Flipkart	31.00
90002006	Viveks	30.00
90002002	Croma	30.00
90002003	Ezone	30.00
90002016	Amazon	29.00

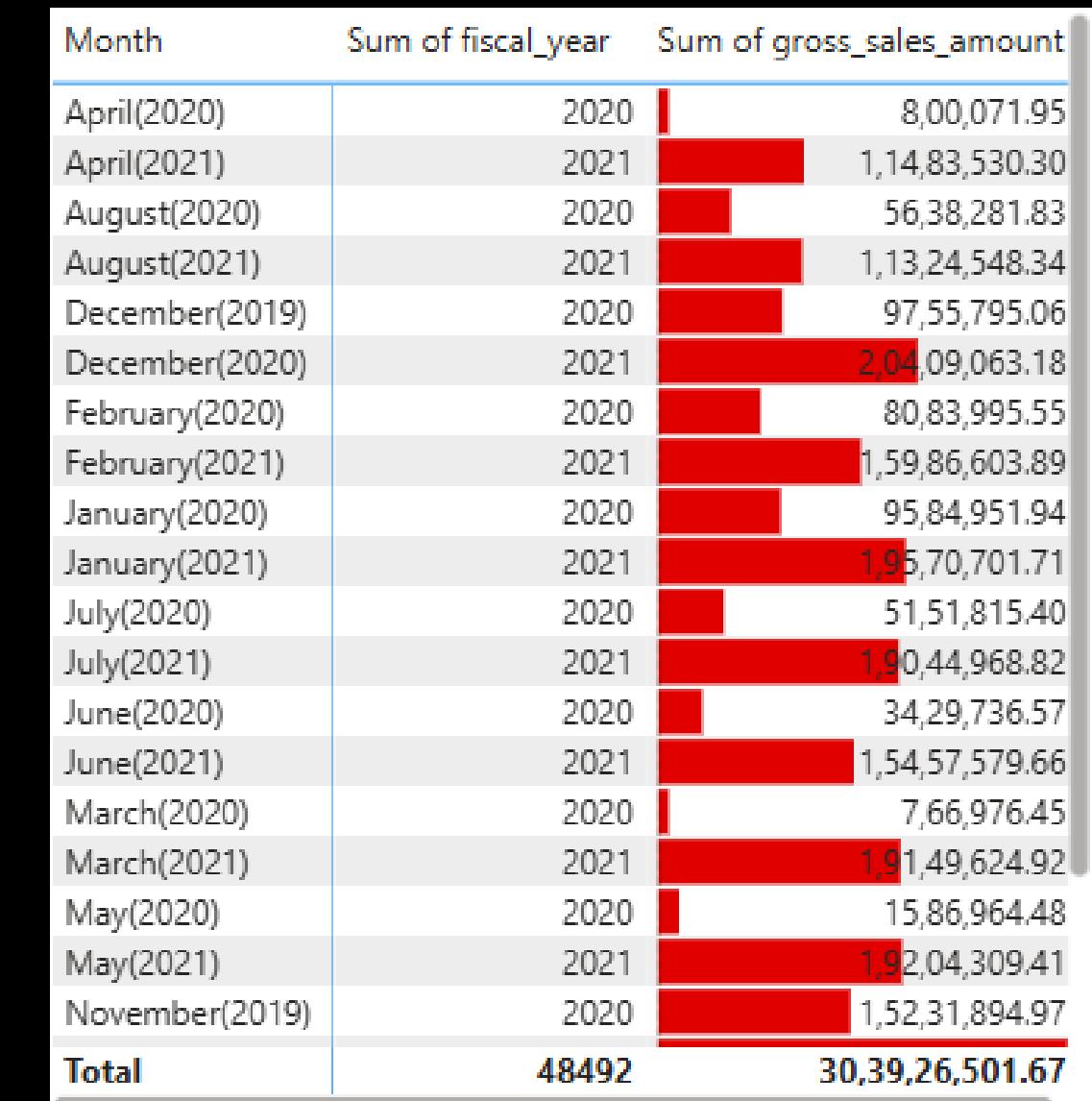


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7. Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month. This analysis helps to get an idea of low and high-performing months and take strategic decisions.

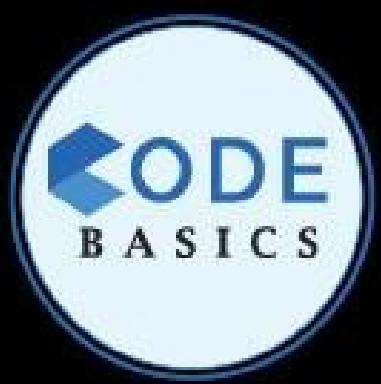
```
select concat(monthname(fs.date), '(', year(fs.date), ')') as 'Month',
fs.fiscal_year, round(sum(g.gross_price*fs.sold_quantity),2) as gross_sales_amount
from fact_sales_monthly fs join dim_customer c
on fs.customer_code = c.customer_code join fact_gross_price g
on fs.product_code = g.product_code
where c.customer = 'Atliq Exclusive' group by month,fs.fiscal_year
order by fs.fiscal_year;
```



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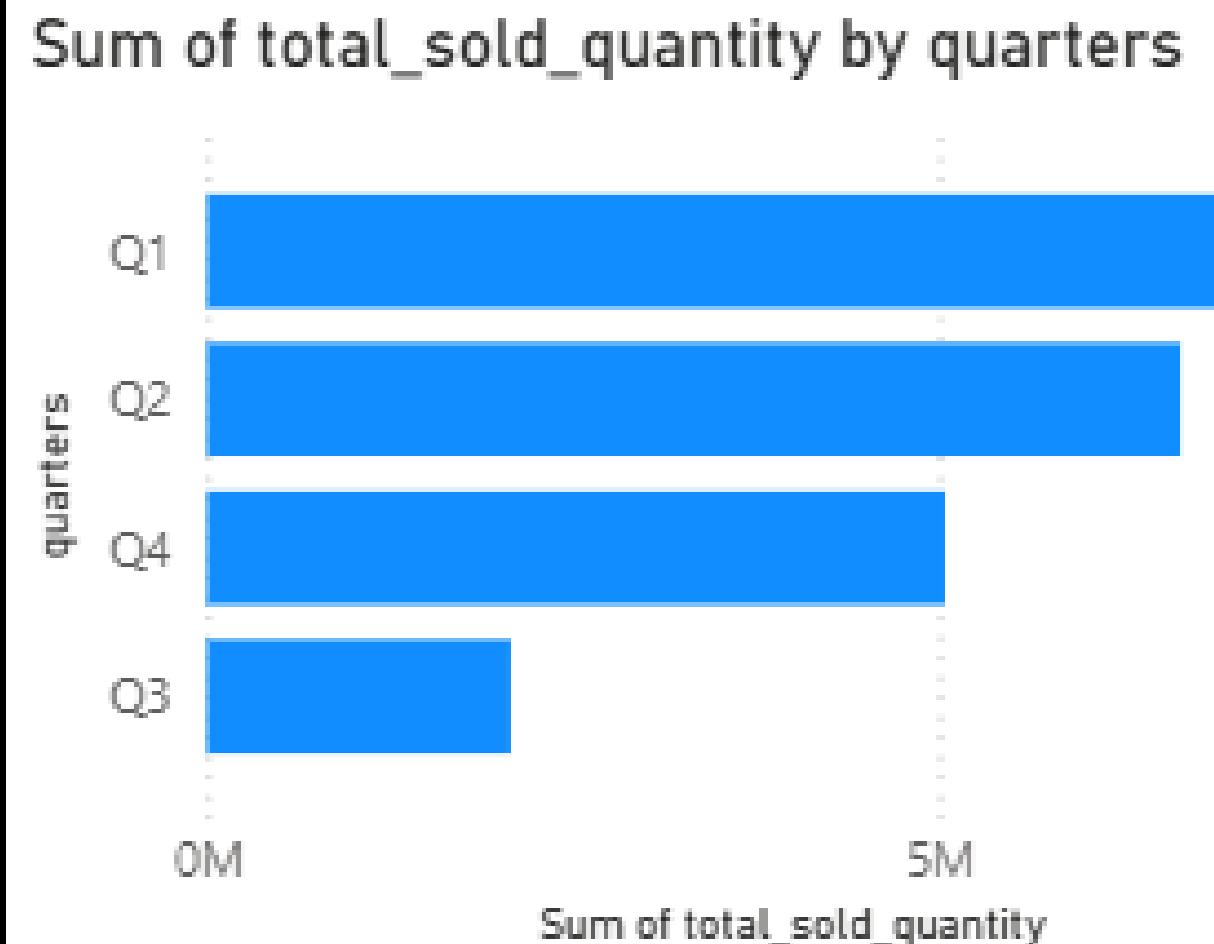


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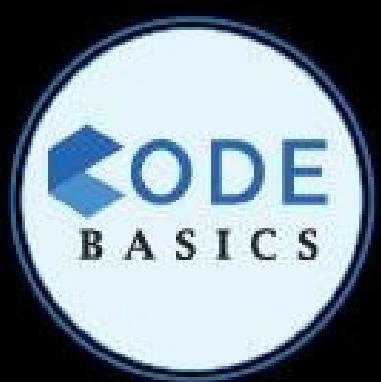
8. In which quarter of 2020, got the maximum total_sold_quantity? The final output contains these fields sorted by the total_sold_quantity

```
select case
when month(date) in (9,10,11) then 'Q1'
when month(date) in (12,1,2) then 'Q2'
when month(date) in (3,4,5) then 'Q3'
else 'Q4' end as quarters,sum(sold_quantity) as total_sold_quantity
from fact_sales_monthly where fiscal_year = 2020
group by Quarters order by total_sold_quantity desc;
```





INSIGHTS



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

```
with temp_table as (
  select c.channel,sum(s.sold_quantity*g.gross_price) as total_sales
  from fact_sales_monthly s join fact_gross_price g
  on s.product_code = g.product_code
  join dim_customer c on s.customer_code = c.customer_code where
  s.fiscal_year = 2021 group by c.channel
  order by total_sales desc)
  select channel,round(total_sales/1000000,2) as gross_sales_in_millions,
  round(total_sales/(sum(total_sales) over())*100,2) as percentage
```

channel	gross_sales_in_millions	percentage
Retailer	1924.17	73.22
Direct	406.69	15.47
Distribu...	297.18	11.31



INSIGHTS



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

```
with temp_table as(
    select division, s.product_code,concat(p.product," ", "(" ,p.variant,")") as product,
    sum(sold_quantity) as total_sold_quantity,
    rank() over(partition by division order by sum(sold_quantity) desc) as rank_order
    from fact_sales_monthly s join dim_product p on s.product_code = p.product_code
    where fiscal_year = 2021
    group by division,s.product_code, p.product,p.variant)
    select * from temp_table where rank_order in (1,2,3);
```

division	product_code	product	total_sold_q	rank_o
N & S	A6720160103	AQ Pen Drive 2 IN 1 (Pre...)	701373	1
N & S	A6818160202	AQ Pen Drive DRC (Plus)	688003	2
N & S	A6819160203	AQ Pen Drive DRC (Prem...)	676245	3
P & A	A2319150302	AQ Gamers Ms (Standar...	428498	1
P & A	A2520150501	AQ Maxima Ms (Standar...	419865	2



Recommendations

- Focusing on Improvement in Desktop, Storage, Networking segment for business improvement.
- Emphasizes Multi-Channel Marketing.
- To attractive promotions & discounts Establish pricing strategies.
- Focus on customer feedback for continuous improvement
- Invest in sales team training for better performance & achieve business goals.



THANK YOU

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