

Every click counts🤔



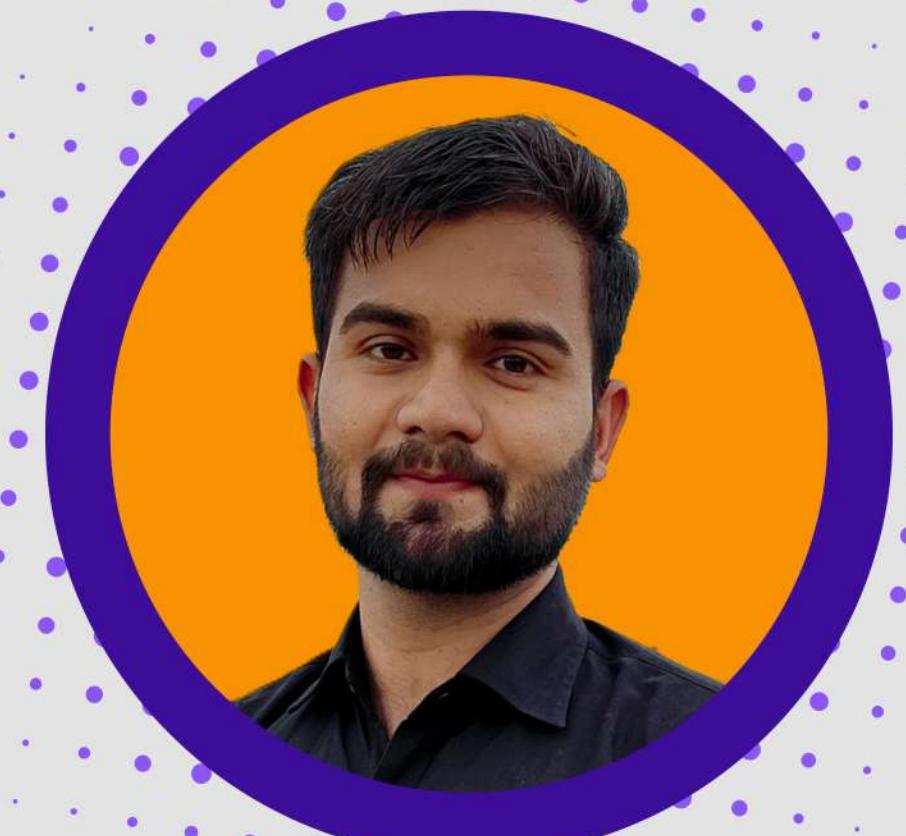
**there shines a beacon
of innovation** 



that's Atliq Hardwares



About Me



Krishan kumar

I'm Krishna a Passionate data analyst, in this video i'll will be sharing the presentation of my codebasics resume project challenge no.04..
This project gonna be SQL based project, So before jumping into the queries. I would like to explain you the agenda of this video.

AGENDA



01 Overview of the company

02 Objective

03 About Data

04 Ad hoc queries & insights



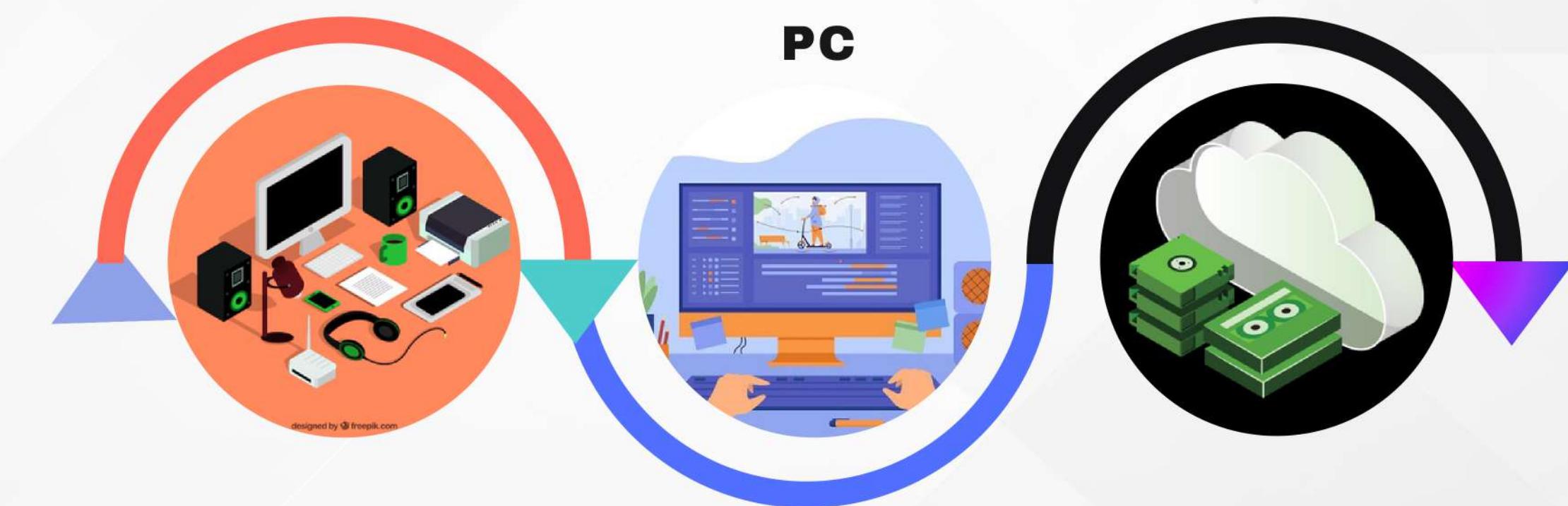


Background of **AtliQ Hardwares**

Atliq hardware is one the leading computer hardware and accessory manufacturer company in India. as well as 26 other countries across the globe



PRODUCT MANUFACTURES Division



Paripheral & Accessories

Networking & Storage

THEY HAVE TOTAL 74 CUSTOMERS



Neptune Line

For more than four decades, we serve our customers with commitment and personal attention, while supporting communities and the environment.

Sage

Sage software sales escalated in that year from 30 copies a month to over 300. The company was first listed on the London Stock Exchange in 1989.

Flipcart

Today, Flipkart is the biggest online Indian marketplace competing with the world leader Amazon. Since 2010, the company has made a number of acquisitions including myntra etc.

Vijay sales

A marvellous journey that began with a small Electronics Showroom at Mahim in 1967, VIJAY SALES has since evolved and has become one of India's biggest retail chains.



WHY DATA ANALYST ?

The objective of this project is that they are lacking the insights that are necessary to make a quick data driven decision.



WHO'S LEADING HERE

they want to expand their data analytics team for this they have appointed data analytics director,

AKY
Tony Sharma



About Data



Dataset

we have provided with sql file which have 4 fact tables & 2 demintion tables



Ad Hoc query

we will also provided with 10 Ad hoc request to which we have to run query using MySQL.



Visualization

showcase the visualization to the top level management, so that they can gain insights and then strategize their goals.

AtliQ Hardwares

- ❖ The fiscal yr for the atliq hardware starts from 1st Sept and ends on 31st Aug each year.
- ❖ The sales data is available for fiscal year 2020 to 2021.



PROBLEM STATEMENT

As we have told that we are going to solve 10 Ad hoc queries, so these are the exactly 10 ad hoc queries that are the part of this challenge.



Codebasics SQL Challenge

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 and the percentage of contribution? The final output contains these fields,
channel
gross_sales_min
percentage

10. Get the Top 3 products in each division with their total_sold_quantity in the fiscal year 2021.
division
product_code

product
total_sold_quantity
rank_order

Note:

1. The submissions are evaluated based on the query readability, logic, and also presentation of the results.
2. We recommend you create a presentation video assuming presenting to the business stakeholders and create a LinkedIn post that contains the link to GitHub files (SQL codes, Presentation document), video presentation, and also your experience while working on this challenge.
3. Submit your post link on the resume project challenge page of codebasics. (<https://codebasics.io/event/codebasics-resume-project-challenge>)

codebasics.io

Request: 1

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

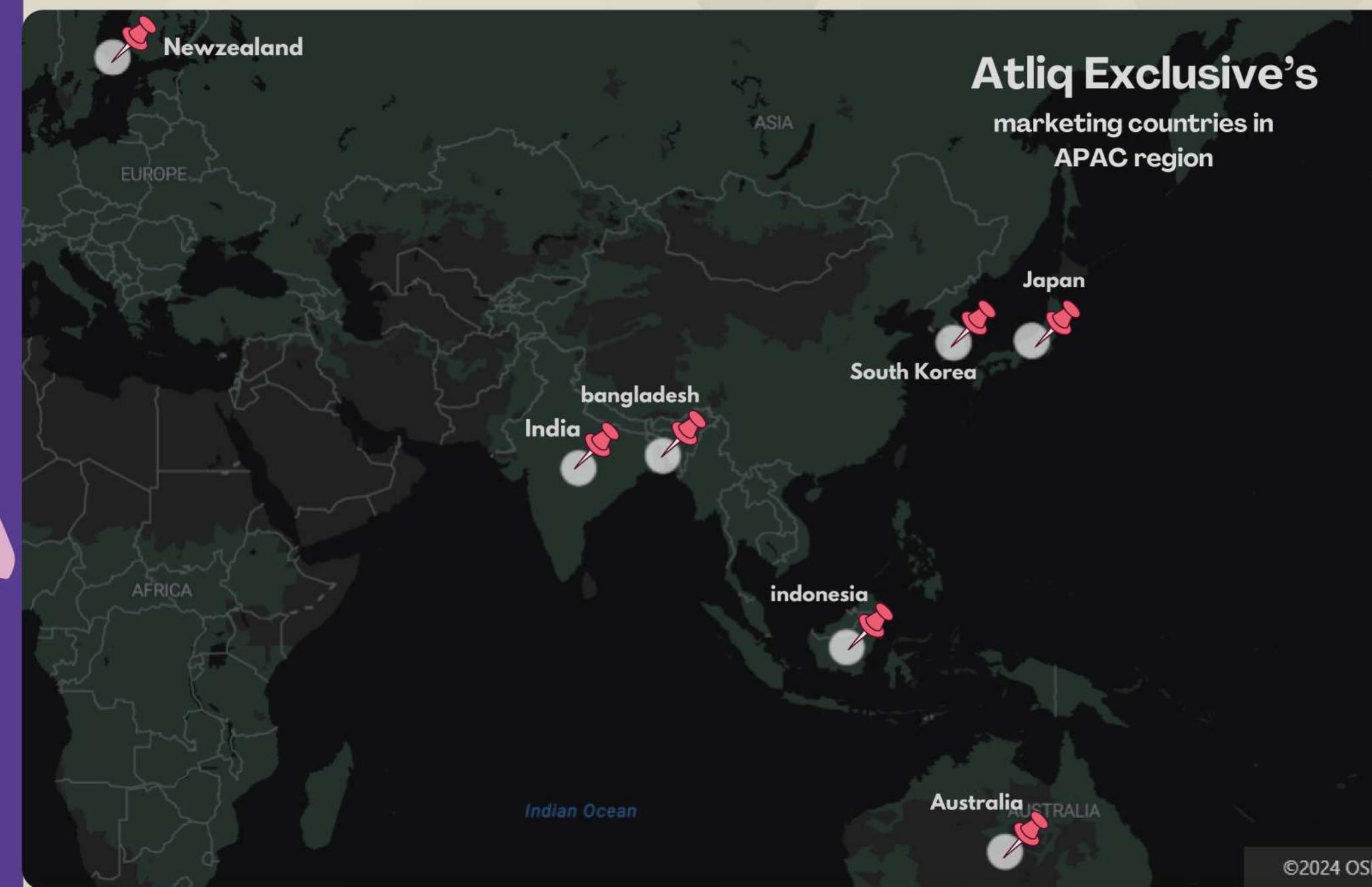
Query:



```
SELECT distinct market  
FROM dim_customer  
where customer = "Atliq Exclusive" and region = 'APAC';
```

Output:

market
India
Indonesia
Japan
Philippines
South Korea
Australia
Newzealand
Bangladesh



Request: 2

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

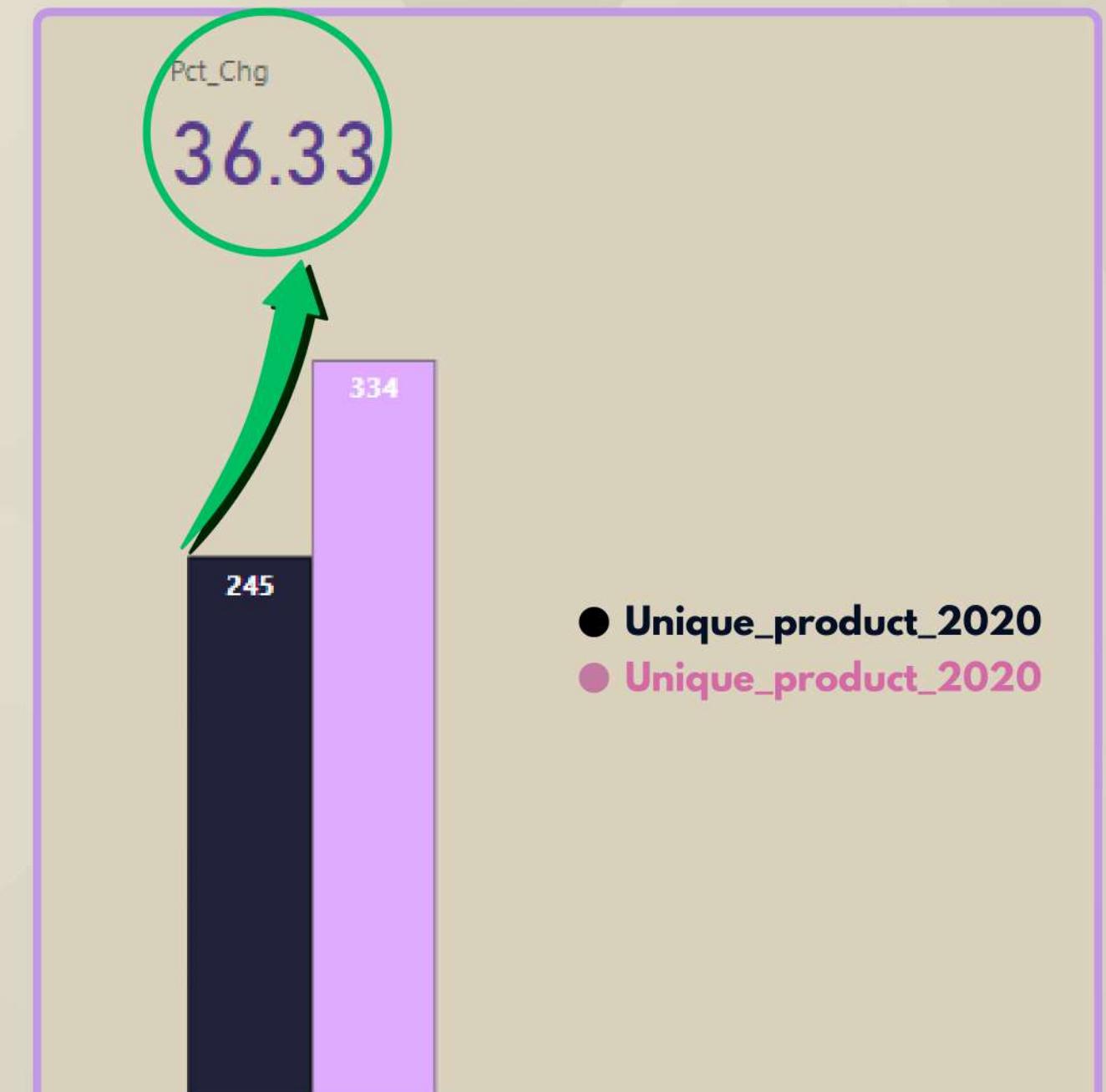
The final output contains these fields, unique_products_2020, unique_products_2021, percentage_chg

Query:

```
● ● ●  
select  
    AA.A as Unique_product_2020,  
    BB.B as Unique_product_2021,  
    ROUND((BB.B - AA.A) * 100 / AA.A, 2) as pct_chg  
from  
    (  
        (select COUNT(DISTINCT product_code) as A from fact_sales_monthly  
        where fiscal_year = 2020) AS AA,  
        (select COUNT(DISTINCT product_code) as B from fact_sales_monthly  
        where fiscal_year = 2021) AS BB);
```

Output:

Unique_product_2020	Unique_product_2021	pct_chg
245	334	36.33



Request: 3

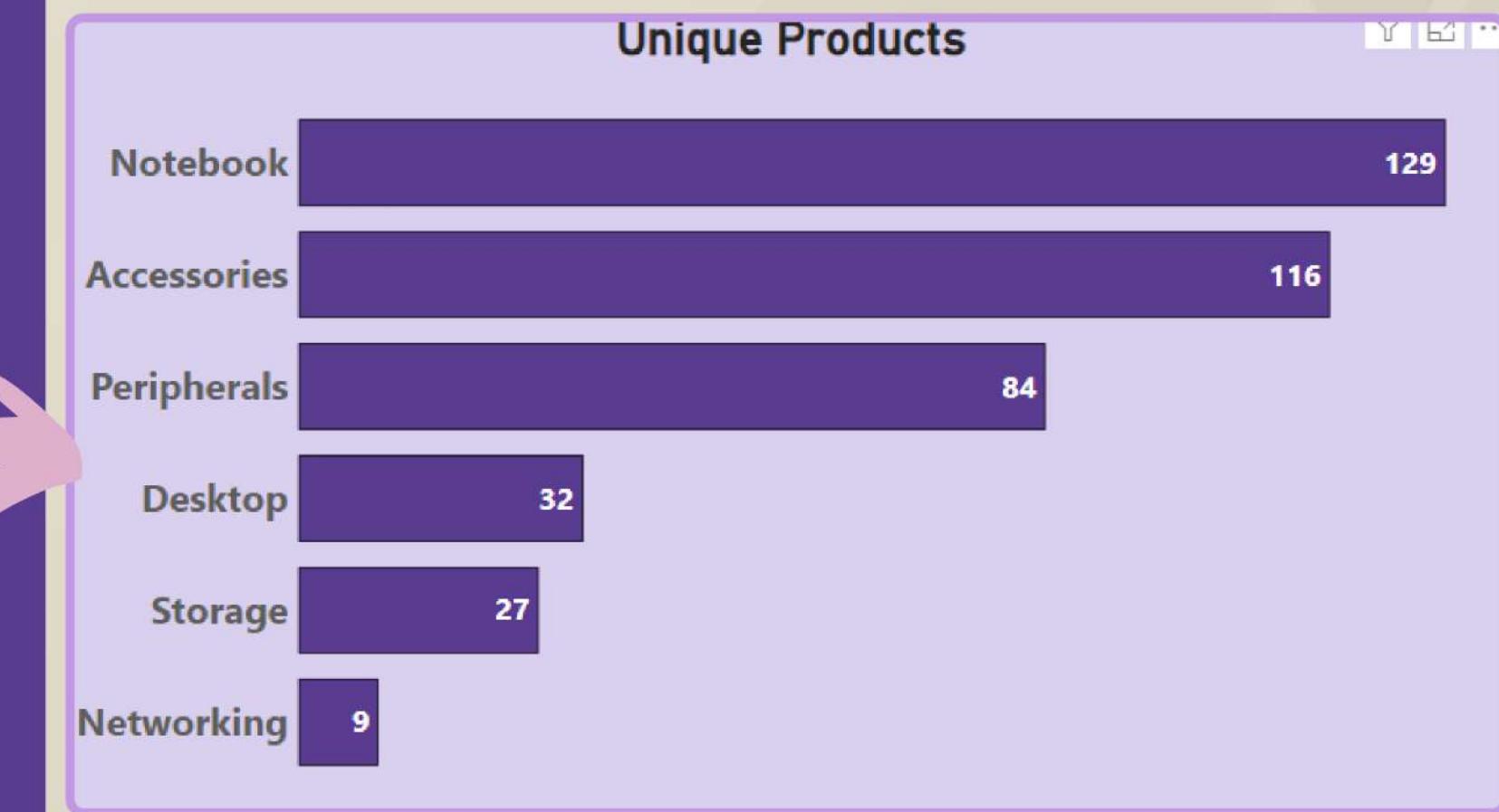
Provide a report with all the unique product counts for each segment and sort them in descending order of product counts. The final output contains 2 fields, segment, product_count.

Query:

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

Output:

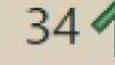
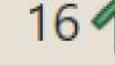
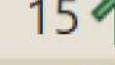
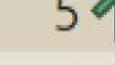
segment	product_count
Notebook	129
Accessories	116
Peripherals	84
Desktop	32
Storage	27
Networking	9



Request: 4

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

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 
Total	245	334	89

Query:

```
with cte1 as (
  select
    dp.segment as A,
    count(distinct fs.product_code) as B
  from fact_sales_monthly fs
  join dim_product dp on fs.product_code = dp.product_code
  group by dp.segment, fs.fiscal_year
  having fs.fiscal_year=2020),
cte2 as (
  select
    dp.segment as C,
    count(distinct fs.product_code) as D
  from fact_sales_monthly fs
  join dim_product dp on fs.product_code = dp.product_code
  group by dp.segment, fs.fiscal_year
  having fs.fiscal_year=2021)

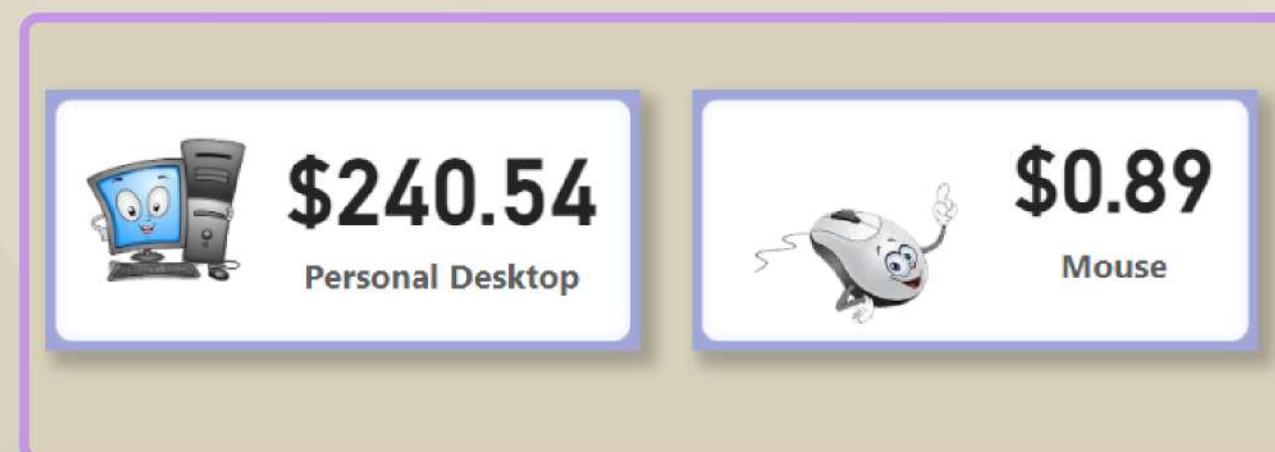
select
  cte1.A as segment,
  cte1.B as product_code_2020,
  cte2.D as product_code_2021,
  (cte2.D-cte1.B) as difference
from cte1, cte2
where cte1.A = cte2.C;
```

Request: 5

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

Output:

product_code	product	segment	manufacturing_cost_max_min
A6120110206	AQ HOME Allin1 Gen 2	Desktop	240.5364
A2118150101	AQ Master wired x1 Ms	Accessories	0.8920



Query:

```
With max_values as
  (select
    dp.product_code,
    dp.product, dp.segment,
    fm.manufacturing_cost as manufacturing_cost_max_min
  from fact_manufacturing_cost as fm
  inner join dim_product dp
  ON
    fm.product_code = dp.product_code
  where fm.manufacturing_cost =
        (select MAX(manufacturing_cost) from
         fact_manufacturing_cost)),
min_values as
  (select
    dp.product_code,
    dp.product, dp.segment,
    fm.manufacturing_cost AS manufacturing_cost_max_min
  from fact_manufacturing_cost as fm
  inner join dim_product dp
  on
    fm.product_code = dp.product_code
  where fm.manufacturing_cost =
        (select MIN(manufacturing_cost) from
         fact_manufacturing_cost))
select * from max_values
union all
select * from min_values;
```

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

Output:

customer	customer_code	avg_disc_pct
Flipkart	90002009	30.83
Viveks	90002006	30.38
Ezone	90002003	30.28
Croma	90002002	30.25
Vijay Sales	90002004	27.53



Query:

```
● ● ●  
select  
    dc.customer,  
    MAX(dc.customer_code) as customer_code,  
    ROUND(avg(fp.pre_invoice_discount_pct) * 100, 2) as  
    avg_disc_pct  
from  
    fact_pre_invoice_deductions as fp  
inner join  
    dim_customer dc on fp.customer_code = dc.customer_code  
where  
    fiscal_year = 2021 and  
    market = 'india'  
group by dc.customer  
order by avg_disc_pct desc  
limit 5;
```

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

Output:

month	Year	Gross_sales_amt
September	2019	9092670.34
October	2019	10378637.60
November	2019	15231894.97
December	2019	9755795.06
January	2020	9584951.94
February	2020	8083995.55
March	2020	766976.45
April	2020	800071.95
May	2020	1586964.48
June	2020	3429736.57
July	2020	5151815.40
August	2020	5638281.83
September	2020	19530271.30
October	2020	21016218.21
November	2020	32247289.79
December	2020	20409063.18
January	2021	19570701.71
February	2021	15986603.89
March	2021	19149624.92
April	2021	11483530.30
May	2021	19204309.41
June	2021	15457579.66
July	2021	19044968.82
August	2021	11324548.34

**FY 2020
79.5 M**

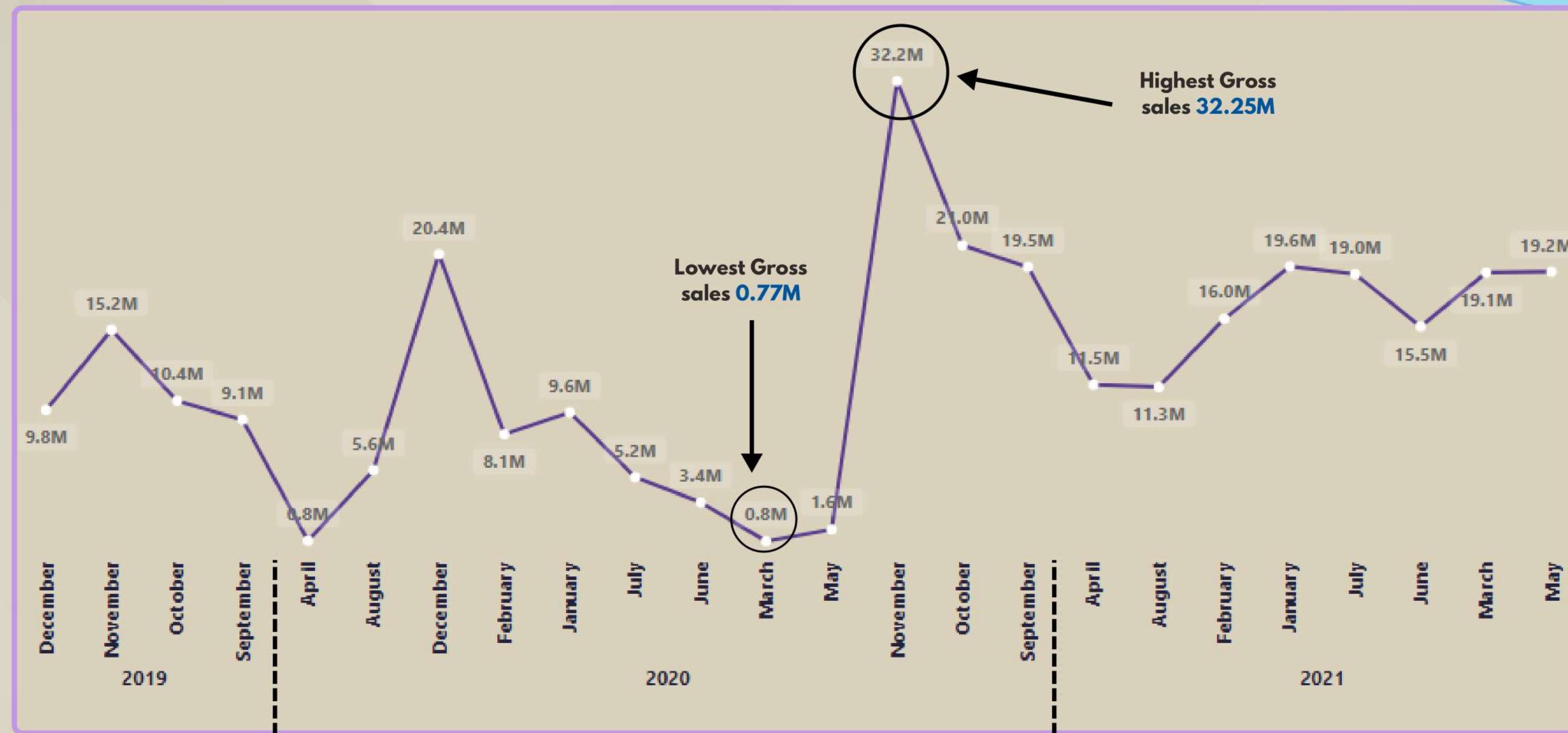
**FY 2021
224.4 M**

Query:

```
with cte1 as (
  select
    monthname(s.date) as A,
    year(s.date) as B,
    s.fiscal_year,
    (g.gross_price*s.sold_quantity) as C
  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 c.customer = 'Atliq Exclusive')

select
  A as month,
  B as Year,
  round(sum(C),2) as Gross_sales_amt
from cte1
group by month, Year
order by year;
```

Output:



Reason:

- Covid-19
- Global chip shortage

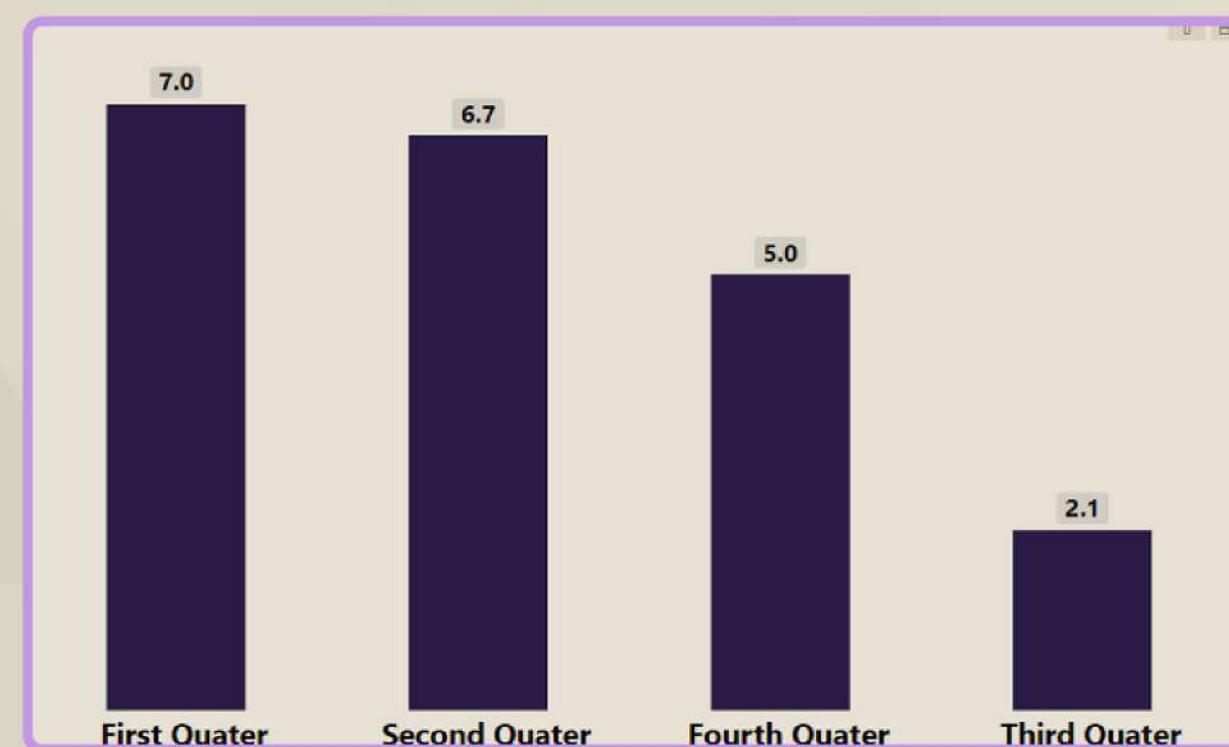
Request: 8

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

Output:

Quater	total_sold_qty_mln
First Quater	7.01
Second Quater	6.65
Third Quater	2.08
Fourth Quater	5.04



Query:

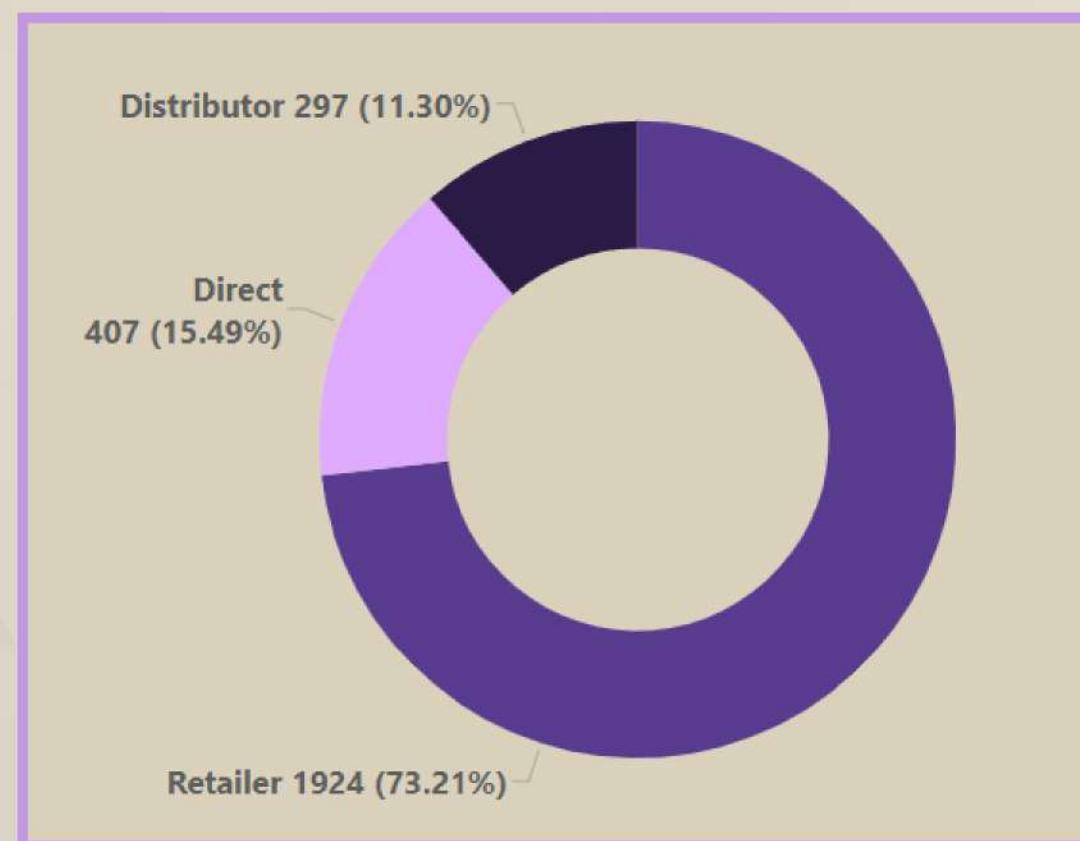
```
select
  case
    when month(date) in (9,10,11) then "First Quater"
    when month(date) in (12,1,2) then "Second Quater"
    when month(date) in (3,4,5) then "Third Quater"
    when month(date) in (6,7,8) then "Fourth Quater"
  end as Quater,
  round(sum(sold_quantity)/1000000,2) as total_sold_qty_mln
from fact_sales_monthly
where fiscal_year=2020
group by Quater
```

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

Output:

channel	gross_sales_mln	pct_contributions
Retailer	1924	73.21
Direct	407	15.49
Distributor	297	11.30



Query:

```
with channels as
  (select
    channel,
    round(sum( sold_quantity* gross_price )/1000000,0)
  as gross_sales_mln
    from fact_sales_monthly as fs
    join fact_gross_price as fp
    on
      fs.product_code=fp.product_code
    join dim_customer as dc
    on
      fs.customer_code=dc.customer_code
    where fs.fiscal_year = 2021
    group by channel
    order by gross_sales_mln desc)

select
  *,
  round(gross_sales_mln*100/ (select sum(gross_sales_mln) from channels),2)
  as pct_contributions
from channels
```

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

Output:



Query:

```
with ranked_product as
    ( -- creating a table with total_sold_quantities and rank_order columns
        with top_products as ( select
            fs.product_code,
            max(dp.product) as product,
            dp.division,
            sum(sold_quantity) as total_sold_quantity
        from fact_sales_monthly fs
        join dim_product as dp
        on
            fs.product_code=dp.product_code
        where fiscal_year=2021
        group by fs.product_code, division
        order by total_sold_quantity desc)
    select
        *,
        -- creating a rank-column
        rank() over( partition by division
                    order by total_sold_quantity desc) as rank_order
    from top_products)

select
    *
from ranked_product
where rank_order in (1,2,3)
```

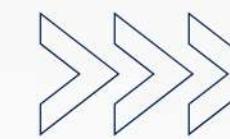


----> presenting

insights For AtliQ



Provided By: Krishan kumar
May 20, 2024



Isights

01

Our unique product experienced a remarkable **36.33%** increase in sales during the fiscal year 2021 compared to the previous year.

02

The **top-selling** product in our portfolio is the **Notebook**, while the **Networking product line** shows the **lowest sales** figures.

03

Try to tweak discount rates such that the customers bring in more gross sales for the company.

04

During the **lowest sales** period, which was in Mar 2020, we achieved sales of **2.8M** units. However, in Nov 2021, we experienced our **highest sales** contribution with a record of **32.2M** units sold.





Thanks for
listening!

For questions or concerns,
email us at krishnakumarprajapat366@gmail.com

I'm here to help! 😊