SQL Project Challenge

Atliq Hardwares Consumer Goods Ad-hoc Insights





Presented by MR Sudeep











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About Project

Introduction

Atliq Hardwares (imaginary company) is one of the leading computer hardware producers in India and other countries too.

Problem Statement

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

Tasks

- 1. There are 10 ad-hoc requests for which the company needs insights.
- 2. You need to run a SQL query to answer these requests.
- 3. Convert it into visualizations and present the insights to the top-level management.



About Company

02





Atliq's Products

PC

Desktop

- Business laptop
- Personal laptop

Notebook

- Business laptop
- Gaming laptop
- Personal laptop



Accessories

- Batteries
- Keyboard
- Mouse

Peripherals

- Graphic card
- Internal HDD
- Motherboard
- Processors

N&S

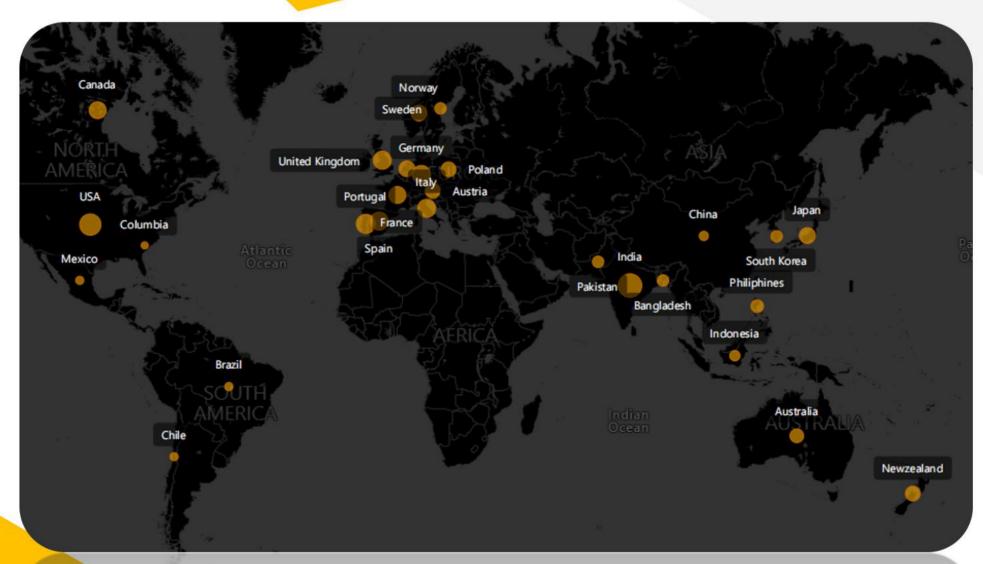
Networking

Wifi Extender

Storage

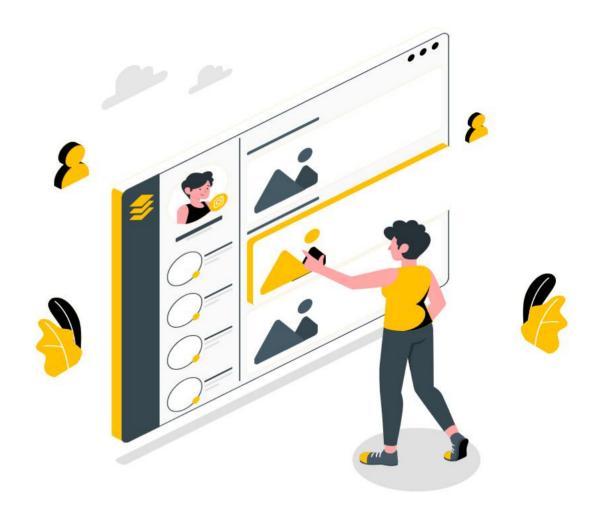
- External SSD
- USB Flash drivers

Atliq's Network



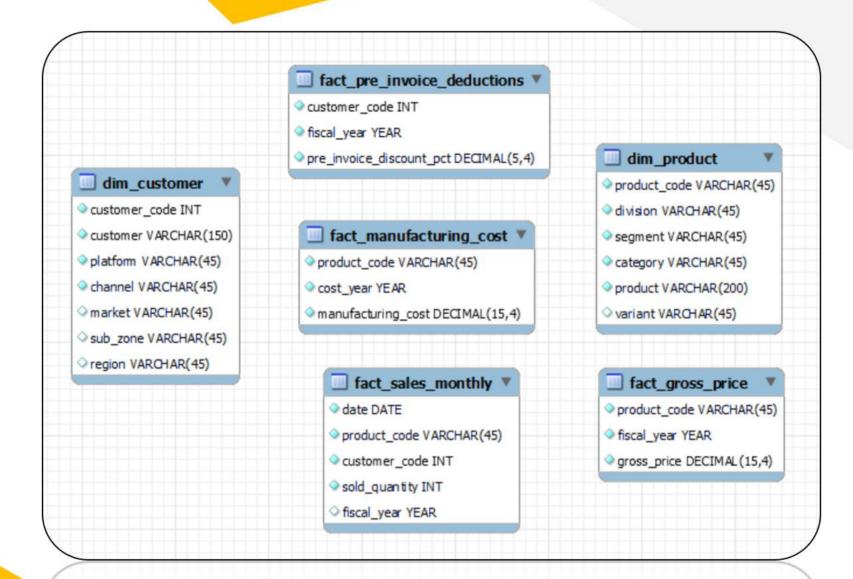
Input Dataset

03





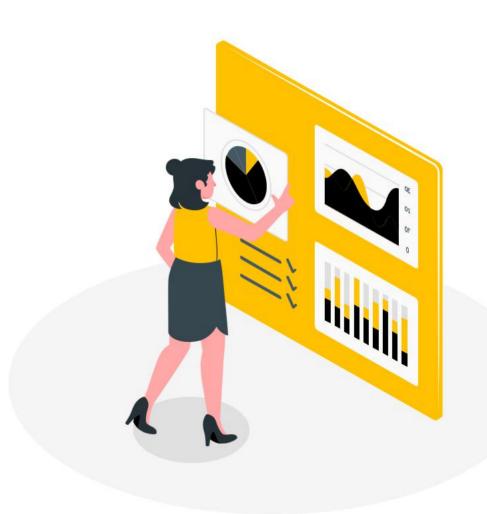
Input Dataset



fiscal_year YEAR

Results

04





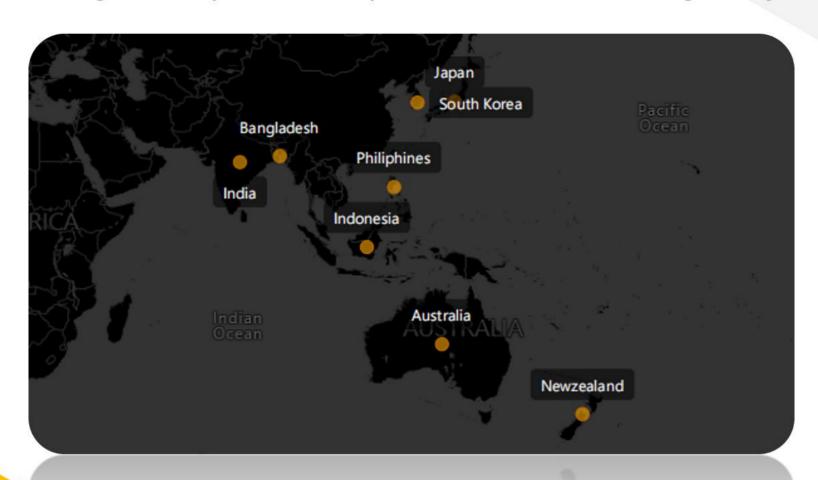
Request 1:

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





In the APAC region, Atliq Exclusive operates its business in eight major markets.





Request 2:

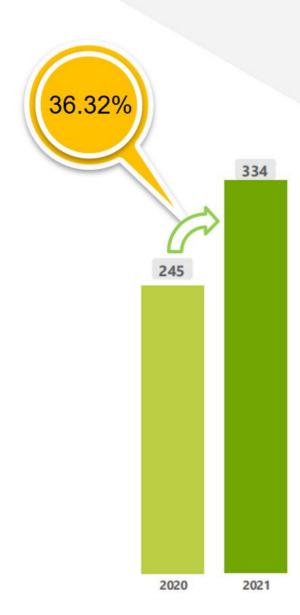
What is the percentage of unique product increase in 2021 vs. 2020? The final output contains these fields,

unique_products_2020 unique_products_2021 percentage_chg

	unique_products_2020	unique_products_2021	percentage_chg
١	245	334	36.3265



The company had 245 products in FY 2020, which increased to 334 products (36% increase) in FY 2021.





Request 3:

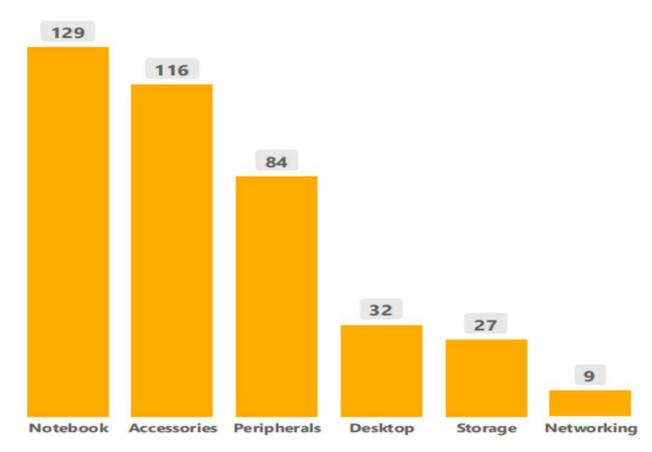
Provide a report with all the unique product counts for each segment and sort them in descending order of product counts. The final output contains 2 fields,

segment product count

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



There are more unique products in the Notebook, Accessories, and Peripherals segments than in the Desktop, Storage and Networking segments.





Request 4:

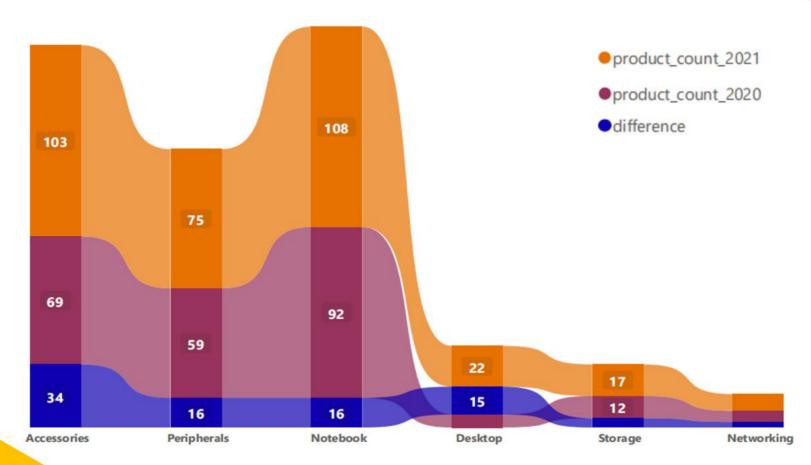
Follow-up: Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields,

segment product_count_2020 product_count_2021 difference

	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
	Networking	6	9	3



The Accessories segment introduced 34 new products. Peripherals, Notebook, and Desktop segments introduced an average of 16 new products.



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

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



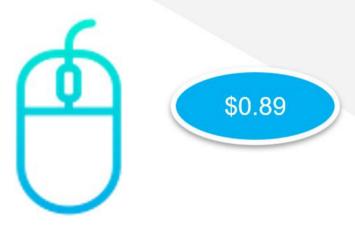
The product with the highest manufacturing cost



AQ HOME Allin1 Gen 2 (Plus 3)

Personal Desktop

The product with the lowest manufacturing cost



AQ Master wired x1 Ms (Standard 1)

Mouse



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

	customer_code	customer	average_discount_percentage
•	90001021	Taobao	30.95
	90013122	Radio Popular	30.93
	80006155	Novus	30.91
	90020099	Integration Stores	30.91
	90002009	Flipkart	30.83
	90002009	Flipkart	30,83



In 2021, the company offered nearly equal pre-invoice discounts to each of its top 5 customers. and Taobao is the most discounted customer in the Indian market, which equals 30.95%.

Taobao

30.95%

Radio Popular

30.93%

Novus

30.91%

Integration Stores

30.91%

Flipkart

30.83%

Request 7:

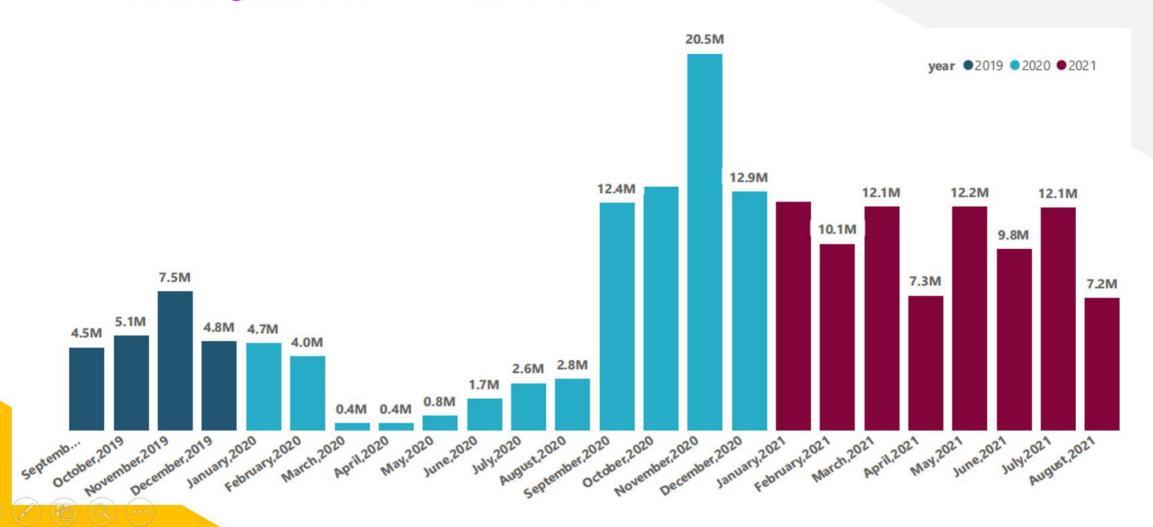
Get the complete report of the Gross sales amount for the customer "Atliq Exclusive" for each month. This analysis helps to get an idea of low and high-performing months and take strategic decisions. The final report contains these columns:

Month Year Gross sales Amount

month	year	Gross_Sales_Amount
9	2019	\$4.50 M
10	2019	\$5.14 M
11	2019	\$7.52 M
12	2019	\$4.83 M
1	2020	\$4.74 M
2	2020	\$4.00 M
3	2020	\$0.38 M
4	2020	\$0.40 M
5	2020	\$0.78 M
6	2020	\$1.70 M
7	2020	\$2.55 M
8	2020	\$2.79 M
9	2020	\$12.35 M
10	2020	\$13.22 M
11	2020	\$20.46 M
12	2020	\$12.94 M
1	2021	\$12.40 M
2	2021	\$10.13 M
3	2021	\$12.14 M
4	2021	\$7.31 M
5	2021	\$12.15 M
6	2021	\$9.82 M
7	2021	\$12.09 M
8	2021	\$7.18 M



The Atliq Exclusive made its highest gross sales in November 2020 and its lowest gross sales in March 2020. Sales are balanced in 2021.



Request 8:

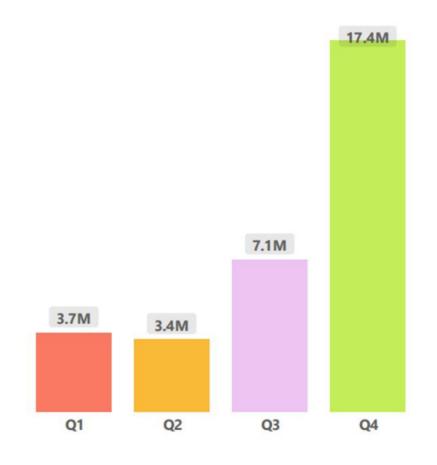
In which quarter of 2020, got the maximum total_sold_quantity? The final output contains these fields sorted by the total_sold_quantity,

Quarter total_sold_quantity

	Quarter	total_sold_quantity
•	1	3.70 M
	2	3.40 M
	3	7.14 M
	4	17.45 M
	4	17.45 M



The Quarter 4 sold the maximum quantities, which is about 17.4 millions. Quarters 1 and 2 both sold the minimum quantities of 3.7 million and 3.4 million, respectively.





Request 9:

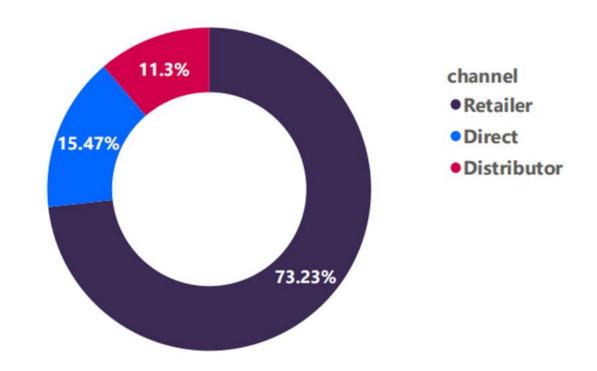
Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? The final output contains these fields,

channel gross_sales_mln percentage

	channel	gross_sales_mln	percentage
•	Distributor	188 M	11.30
	Direct	258 M	15.47
	Retailer	1219 M	73.23
	Retailer	1219 M	73.23



The majority of the sales were made through retailers, which is 73.23% of the total sales. Direct channels accounted for 15.47% of total sales. 11.3% of sales were made through distributor 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

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



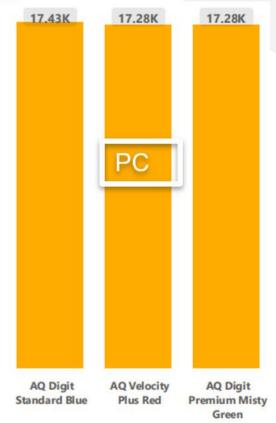
Pen drives are the top three selling products in N&S, with approximately 7 lakh units sold.

Mouse are the top three selling products in P&A, with approximately 4 lakh units sold.





Personal laptops are the top three selling products in PC, with approximately 17 thousand units sold.





Thank You

