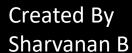


## Code Basics Challenge - 4











## **AGENDA**

- OBJECTIVE
- 10\_Ad Hoc 10 AD\_HOC REQUESTS & INSIGHTS



## OBJECTIVE



Enhance Decision-Making: Improve the quality of decision-making by providing the management with quick and data-informed insights.



Expand Data Analytics Team: Strengthen the data analytics team by hiring multiple junior data analysts proficient in both technical and soft skills.



Evaluate Candidate Skills: Conduct a SQL challenge to assess candidates' proficiency in technical abilities and communication, ensuring the selection of suitable candidates with a balanced skill set.



## **Question:**

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

	market	customer	region
Þ	India	Atliq Exclusive	APAC
	Indonesia	Atliq Exclusive	APAC
	Japan	Atliq Exclusive	APAC
	Philiphines	Atliq Exclusive	APAC
	South Korea	Atliq Exclusive	APAC
	Australia	Atliq Exclusive	APAC
	Newzealand	Atliq Exclusive	APAC
	Bangladesh	Atliq Exclusive	APAC
	India	Atlig Exclusive	APAC

## **Question:**

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

The final output contains these fields:

```
,unique_products_2020
```

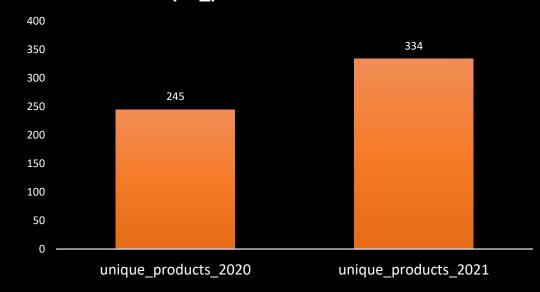
unique\_products\_2021

,percentage\_chg

	unique_products_2020	unique_products_2021	Percentage_change
•	245	334	36.33

# unique\_products\_2020 unique\_products\_2021 Percentage\_change ≥ 245 334 36.33

#### Unique\_products 2020 vs 2021



☐ The number of unique products in 2021 increased by 36% compared to 2020.

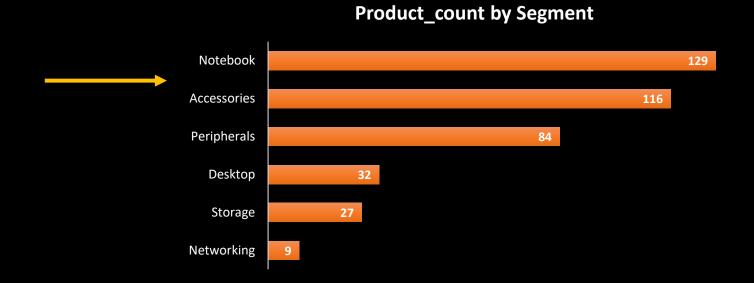
#### **Question:**

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

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



<sup>□</sup> Notebook segment has the greatest number of unique products, and the Networking segment has the least number of unique products.

## **Question:**

Follow-up: Which segment had the most increase in unique products in 2021 vs 2020?

The final output contains these fields

,segmentproduct\_count\_2020

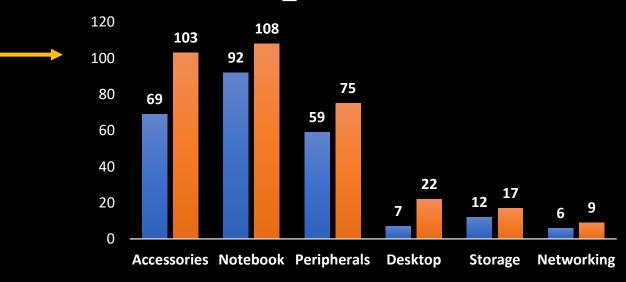
,product\_count\_2021

,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
	,			

	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

#### Product\_count 2020 vs 2021



- ☐ Accessories segment has more difference in unique products than remaining segments.
- ☐ Networking segment has least difference in unique products.

#### **Question:**

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

The final output should contain these fields product\_code ,product ,manufacturing\_cost

#### **Output:**

	product_code	product	manufacturing_cost
•	A6120110206	AQ HOME Allin1 Gen 2	240.54
	A2118150101	AQ Master wired x1 Ms	0.89

- ☐ AQ HOME Allin1 Gen 2 product has high manufacturing cost
- ☐ AQ Master wired x1 Ms product has low manufacturing cost

#### **Question:**

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.

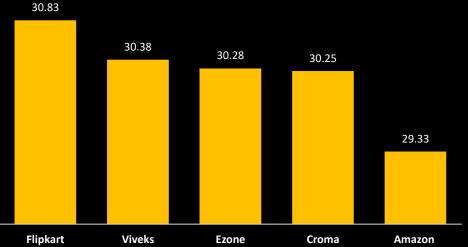
The final output contains these fields

```
,customer_code
,customer
,average_discount_percentage
```

	rank_	customer_code	customer	average_discount_percentage
١	1	90002009	Flipkart	30.83
	2	90002006	Viveks	30.38
	3	90002003	Ezone	30.28
	4	90002002	Croma	30.25
	5	90002016	Amazon	29.33







- ☐ The leading customers in the Indian market comprise Flipkart, Viveks, Ezone, Croma, and Amazon.
- ☐ Among these, Flipkart stands out with a slightly higher discount percentage (30.8%) whereas Amazon customer contribution was the lowest (29.3%)

#### **Question:**

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

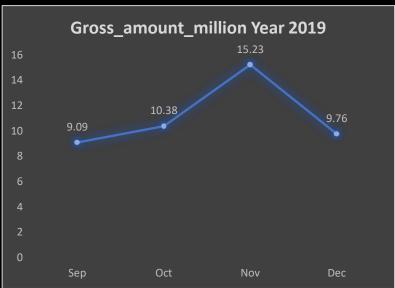
The final report contains these columns:

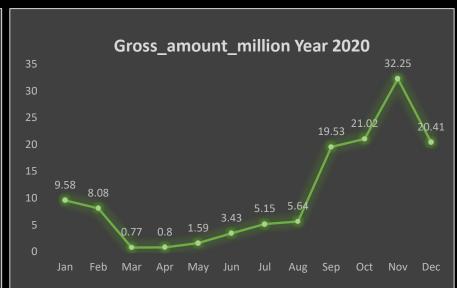
Month

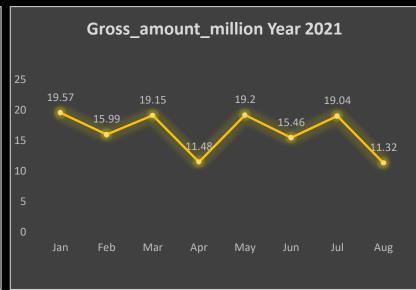
Year

**Gross sales Amount** 

	month	year	Gross_sales_Amount_mln
•	9	2019	9.09
	10	2019	10.38
	11	2019	15.23
	12	2019	9.76
	1	2020	9.58
	2	2020	8.08
	3	2020	0.77
	4	2020	0.80
	5	2020	1.59
	6	2020	3.43
	7	2020	5.15
	8	2020	5.64
	9	2020	19.53
	10	2020	21.02
	11	2020	32.25
	12	2020	20.41
	1	2021	19.57
	2	2021	15.99
	3	2021	19.15
	4	2021	11.48
	5	2021	19.20
	6	2021	15.46
	7	2021	19.04
	8	2021	11.32







- ☐ 770K million dollars Lowest Gross Sales amount in March 2020
- ☐ 32.5 million dollars Highest Gross Sales amount in Nov 2020

#### **Output:**

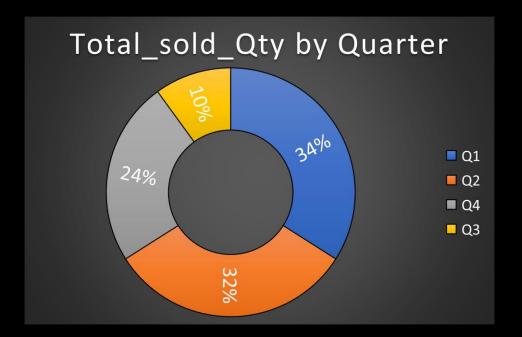
#### **Question:**

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	
Þ	•	Q1	7005619	
		Q2	6649642	
		Q4	5042541	
		Q3	2075087	

QUARTER	total_sold_quantity	
Q1	7005619	
Q2	6649642	
Q4	5042541	
Q3	2075087	
	Q1 Q2 Q4	Q1 7005619 Q2 6649642 Q4 5042541



- ☐ Quarter 1 has more total sold quantity with 34%
- ☐ Quarter 3 has low total sold quantity with 10%

#### **Question:**

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

The final output contains these fields

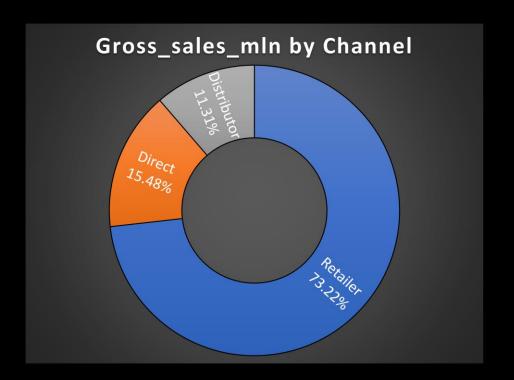
,channel

,gross\_sales\_mln

,percentage

▶ Retailer	1024 17	
-	1924.17	73.22
Direct	406.69	15.48
Distributo	r 297.18	11.31

	channel	gross_sales_mln	percentage
•	Retailer	1924.17	73.22
	Direct	406.69	15.48
	Distributor	297.18	11.31



- ☐ Retailer channel has the highest sales percentage 73.2%
- ☐ Distributer channel has the lowest sales percentage 11.3%

#### **Output:**

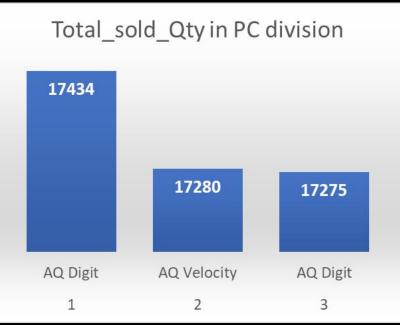
#### **Question:**

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
```

	division	product_code	product	total_sold_quantity	rank_order
>	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







- ☐ In the N&S division, the top 3 products are Pen drives, and they sell more than the products in the other two divisions.
- ☐ For P&A division, the top 3 products are mouses, and for PC division, they are personal computers.

