Codebasics SQL Challenge

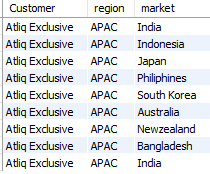
Requests:

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

Solution:

SELECT customer\_code,Customer,region,market FROM gdb023.dim\_customer

where customer="Atliq Exclusive" and region="APAC";



**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**

Solution:

select unique\_products\_2021, unique\_products\_2020, (unique\_products\_2021-unique\_products\_2020)/unique\_products\_2020\*100 percentage\_chg from

(select

(select count(distinct product\_code) from gdb023.fact\_sales\_monthly where fiscal\_year=2020) unique\_products\_2020,

(select count(distinct product\_code) from gdb023.fact\_sales\_monthly where fiscal\_year=2021) unique\_products\_2021

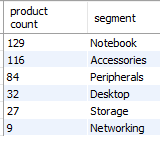
from dual) dummy;



**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**

Solution:

select count(distinct product\_code) 'product count', segment FROM gdb023.dim\_product group by segment order by count(product\_code) desc;



**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**

Solution:

select segment, sum(product\_count\_2021) product\_count\_2021, sum(product\_count\_2020) product\_count\_2020, sum(product\_count\_2021)-sum(product\_count\_2020) difference from

(select count(distinct DP.product\_code) product\_count\_2021, segment, null product\_count\_2020 FROM gdb023.dim\_product DP, gdb023.fact\_sales\_monthly FSM

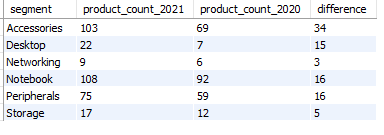
where DP.product\_code=FSM.product\_code and fiscal\_year=2021 group by segment

union

select null product\_count\_2021, segment, count(distinct DP.product\_code) product\_count\_2020 FROM gdb023.dim\_product DP, gdb023.fact\_sales\_monthly FSM

where DP.product\_code=FSM.product\_code and fiscal\_year=2020 group by segment) dummy

group by segment;



**5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields: product\_code, product, manufacturing\_cost**

select FMC.product\_code product\_code, Product, manufacturing\_cost from gdb023.dim\_product DP ,

(SELECT product\_code, manufacturing\_cost FROM gdb023.fact\_manufacturing\_cost

where manufacturing\_cost = (select max(manufacturing\_cost) FROM gdb023.fact\_manufacturing\_cost)

or manufacturing\_cost = (select min(manufacturing\_cost) FROM gdb023.fact\_manufacturing\_cost)) FMC

where DP.product\_code=FMC.product\_code order by FMC.manufacturing\_cost desc;



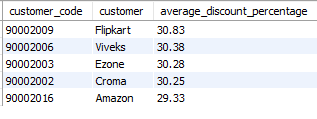
**6. Generate a report which contains the top 5 customers who received an average high pre\_invoice\_discount\_pct for the fiscal year 2021 and in the Indian market. The final output contains these fields, customer\_code, customer, average\_discount\_percentage**

select FPD.customer\_code,customer, round(avg(pre\_invoice\_discount\_pct)\*100,2) average\_discount\_percentage

FROM gdb023.fact\_pre\_invoice\_deductions FPD, gdb023.dim\_customer DC

where DC.customer\_code= FPD.customer\_code and FPD.fiscal\_year=2021 and market='India'

group by FPD.customer\_code,customer order by average\_discount\_percentage desc limit 5;



**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**

select Month, Year, round(sum(gross\_price \* sold\_quantity),2) 'Gross sales Amount' from gdb023.fact\_gross\_price FGP,

(select product\_code,customer\_code,date\_format(FSM.date,'%M') Month,date\_format(FSM.date,'%Y') Year, sold\_quantity

from gdb023.fact\_sales\_monthly FSM

where customer\_code in (select customer\_code from gdb023.dim\_customer where customer='Atliq Exclusive' )) Dummy

where FGP.product\_code=Dummy.product\_code

group by Month, Year

order by Year;



**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**

select case

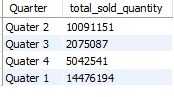
when date\_format(date,'%M') in ('September','October','November') then 'Quater 1'

when date\_format(date,'%M') in ('December','January','February') then 'Quater 2'

when date\_format(date,'%M') in ('March','April','May') then 'Quater 3'

else 'Quater 4' end 'Quarter', sum(sold\_quantity) total\_sold\_quantity

from gdb023.fact\_sales\_monthly where date\_format(date,'%Y')=2020 group by Quarter;



**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**

select channel, gross\_sales\_mln, round(gross\_sales\_mln/total\_gross\_sales\_mln\*100,2) percentage from

(select channel, sum(sold\_quantity\*gross\_price) gross\_sales\_mln

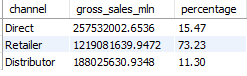
from gdb023.dim\_customer DC, gdb023.fact\_sales\_monthly FSM, gdb023.fact\_gross\_price FGP

where DC.customer\_code=FSM.customer\_code and FSM.fiscal\_year=2021

and FSM.fiscal\_year=FGP.fiscal\_year and FSM.product\_code=FGP.product\_code

group by channel)table1,(select sum(sold\_quantity\*gross\_price) total\_gross\_sales\_mln from gdb023.fact\_sales\_monthly FSM, gdb023.fact\_gross\_price FGP

where FSM.fiscal\_year=2021 and FSM.fiscal\_year=FGP.fiscal\_year and FSM.product\_code=FGP.product\_code) table2



**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**

select \* from (

SELECT division,DP.product\_code, DP.product, sum(sold\_quantity) total\_sold\_quantity,

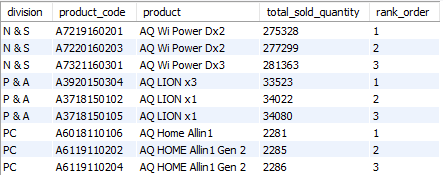
rank() over(partition by division order by sum(sold\_quantity)) rank\_order

FROM gdb023.dim\_product DP, gdb023.fact\_sales\_monthly FSM

where DP.product\_code=FSM.product\_code

and FSM.fiscal\_year=2021

group by division,product\_code, DP.product ) tble where rank\_order<4



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