



LARANA, INC.

BUSINESS PROJECT

Created By :
Pratik Sunar

Query to find Yearly and Quarterly Gross Price Total

Select

```
date, s.product_code,  
p.product, p.variant,  
s.sold_quantity,  
g.gross_price,  
Round(g.gross_price*s.sold_quantity, 2) as gross_price_total
```

from fact_sales_monthly s

JOIN dim_product p

on s.product_code = p.product_code

Join fact_gross_price g

on

```
s.product_code = g.product_code and  
g.fiscal_year = get_fiscal_year(s.date)
```

Where

```
customer_code = 90002002 and  
get_fiscal_year(date) = 2021 and  
get_fiscal_year_quarter(date) = "Q4"
```

order by date desc;

Output

date	product_code	product	variant	sold_quantity	gross_price	gross_price_total
2021-08-01	A7321160303	AQ Wi Power Dx3	Premium	158	42.8483	6770.03
2021-08-01	A7321160302	AQ Wi Power Dx3	Plus	193	43.9446	8481.31
2021-08-01	A7321160301	AQ Wi Power Dx3	Standard	459	40.7954	18725.09
2021-08-01	A7220160203	AQ Wi Power Dx2	Premium	586	37.4784	21962.34
2021-08-01	A7220160202	AQ Wi Power Dx2	Plus	264	35.2053	9294.20
2021-08-01	A7219160201	AQ Wi Power Dx2	Standard	531	32.9575	17500.43
2021-08-01	A7119160103	AQ Wi Power Dx1	Premium	137	28.7736	3941.98
2021-08-01	A7119160102	AQ Wi Power Dx1	Plus	454	29.9264	13586.59
2021-08-01	A7118160101	AQ Wi Power Dx1	Standard	251	29.6712	7447.47
2021-08-01	A6819160203	AQ Pen Drive DRC	Premium	436	5.0984	2222.90
2021-08-01	A6818160202	AQ Pen Drive DRC	Plus	1538	3.8531	5926.07
2021-08-01	A6818160201	AQ Pen Drive DRC	Standard	774	2.9990	2321.23
2021-08-01	A6720160103	AQ Pen Drive 2 I...	Premium	433	4.4411	1923.00
2021-08-01	A6620160501	AQ Clx3	Standard	339	22.8530	7747.17
2021-08-01	A6520160403	AQ Clx2	Premium	940	21.2830	20006.02
2021-08-01	A6520160402	AQ Clx2	Plus	110	20.1650	2218.15
2021-08-01	A6519160401	AQ Clx2	Standard	778	20.2889	15784.76

result 2

Yearly Sales Report of Croma

Select

```
get_fiscal_year(s.date) as Year_,  
Round(SUM(s.sold_quantity*g.gross_price),2) as gross_price_total  
from fact_sales_monthly s  
Join fact_gross_price g  
on  
    s.product_code = g.product_code and  
    g.fiscal_year = get_fiscal_year(s.date)  
where customer_code = 90002002  
Group by Year_
```

Year_	gross_price_total
2018	1324097.44
2019	3555079.02
2020	6502181.91
2021	23216512.22
2022	44638198.92

Query using CTE to find Net Invoice Sales

```
With CTE1 as
(
  Select
    date, s.fiscal_year, s.customer_code, s.product_code, c.market, p.product, p.variant, s.sold_quantity, g.gross_price,
    Round(g.gross_price*s.sold_quantity, 2) as gross_price_total,
    pre.pre_invoice_discount_pct
  from fact_sales_monthly s
  Join dim_customer c
  on
    c.customer_code = s.customer_code
  JOIN dim_product p
  on s.product_code = p.product_code
  Join fact_gross_price g
  on
    s.product_code = g.product_code and
    g.fiscal_year = s.fiscal_year
  Join fact_pre_invoice_deductions pre
  on
    s.customer_code = pre.customer_code and
    pre.fiscal_year = s.fiscal_year
  Where
    s.fiscal_year= 2021
  order by date desc )
Select
  *,
  (gross_price_total - gross_price_total*pre_invoice_discount_pct) as Net_invoice_sales
from CTE1;
```

Net Invoice Sales report

market	product	variant	sold_quantity	gross_price	gross_price_total	pre_invoice_discount_pct	Net_invoice_sales
Brazil	AQ Wi Power Dx3	Premium	12	42.8483	514.18	0.2772	371.649304
Chile	AQ Wi Power Dx3	Premium	17	42.8483	728.42	0.1839	594.463562
Chile	AQ Wi Power Dx3	Premium	11	42.8483	471.33	0.2251	365.233617
Canada	AQ Wi Power Dx3	Premium	139	42.8483	5955.91	0.2186	4653.948074
Canada	AQ Wi Power Dx3	Premium	57	42.8483	2442.35	0.2598	1807.827470
Canada	AQ Wi Power Dx3	Premium	213	42.8483	9126.69	0.2554	6795.733374
Canada	AQ Wi Power Dx3	Premium	174	42.8483	7455.60	0.2918	5280.055920
Canada	AQ Wi Power Dx3	Premium	59	42.8483	2528.05	0.2289	1949.379355
Canada	AQ Wi Power Dx3	Premium	180	42.8483	7712.69	0.2652	5667.284612
Canada	AQ Wi Power Dx3	Premium	144	42.8483	6170.16	0.2556	4593.067104
USA	AQ Wi Power Dx3	Premium	127	42.8483	5441.73	0.1927	4393.108629
USA	AQ Wi Power Dx3	Premium	88	42.8483	3770.65	0.2128	2968.255680
USA	AQ Wi Power Dx3	Premium	395	42.8483	16925.08	0.3059	11747.698028
USA	AQ Wi Power Dx3	Premium	159	42.8483	6812.88	0.2075	5399.207400
USA	AQ Wi Power Dx3	Premium	346	42.8483	14825.51	0.2162	11620.234738
USA	AQ Wi Power Dx3	Premium	63	42.8483	2699.44	0.2882	1921.461392

Query to find Net Sales

```
Select
    n.date, n.fiscal_year,
    n.customer_code, n.market,
    n.product_code, n.product, n.variant,
    n.sold_quantity, n.gross_price, n.gross_price_total,
    n.pre_invoice_discount_pct,
    n.net_invoice_sales,
    (po.discounts_pct + po.other_deductions_pct) as post_invoice_deduction_pct
from net_invoice_sales n
Join fact_post_invoice_deductions po
on
    n.product_code = po.product_code and
    n.date = po.date and
    n.customer_code = po.customer_code
)
Select
    *,
    (Net_invoice_sales - Net_invoice_sales*post_invoice_deduction_pct) as Net_sales
from CTE1
```

variant	sold_quantity	gross_price	gross_price_total	pre_invoice_discount_pct	Net_invoice_sales	post_invoice_deduction_pct	Net_sales
Standard	4	15.3952	61.58	0.2803	44.319126	0.3905	27.0125072970
Standard	16	15.3952	246.32	0.2803	177.276504	0.4139	103.9017589944
Standard	4	15.3952	61.58	0.2803	44.319126	0.3295	29.7159739830
Standard	6	15.3952	92.37	0.2803	66.478689	0.3244	44.9130022884
Standard	9	15.3952	138.56	0.2803	99.721632	0.3766	62.1664653888
Standard	6	15.3952	92.37	0.2803	66.478689	0.3615	42.4466429265
Standard	7	15.3952	107.77	0.2803	77.562069	0.3173	52.9516245063
Standard	10	15.3952	153.95	0.2803	110.797815	0.3501	72.0074999685
Standard	6	15.3952	92.37	0.2803	66.478689	0.3740	41.6156593140
Standard	4	15.3952	61.58	0.2117	48.543514	0.2863	34.6455059418
Standard	2	15.3952	30.79	0.2117	24.271757	0.2851	17.3518790793
Standard	3	15.3952	46.19	0.2117	36.411577	0.2882	25.9177605086
Standard	5	15.3952	76.98	0.2117	60.683334	0.3334	40.4515104444
Standard	1	15.3952	15.40	0.2117	12.139820	0.3296	8.1385353280
Standard	1	15.3952	15.40	0.2117	12.139820	0.2901	8.6180582180
Standard	5	15.3952	76.98	0.2117	60.683334	0.3233	41.0644121178

Stored procedure to find Top market & Customer in terms of Net Sales

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `get_top_n_market_by_Net_sales`(
    in_fiscal_year INT,
    in_top_n INT
)
BEGIN
    Select
        market,
        Round(sum(Net_sales)/1000000,2) as Net_Sales_mln
    from net_sales
    Where fiscal_year = in_fiscal_year
    Group by market
    order by 2 desc
    limit in_top_n ;
END
```

```
CREATE DEFINER='root'@'localhost' PROCEDURE `get_top_n_customer_by_Net_sales`(
    in_market VARCHAR(45),
    in_fiscal_year INT,
    in_top_n INT
)
BEGIN
    Select
        customer,
        Round(sum(Net_sales)/1000000,2) as Net_Sales
    from net_sales n
    Join dim_customer c
    using(customer_code)
    Where fiscal_year = in_fiscal_year and n.market = in_market
    Group by customer
    order by 2 desc
    limit in_top_n;
END
```

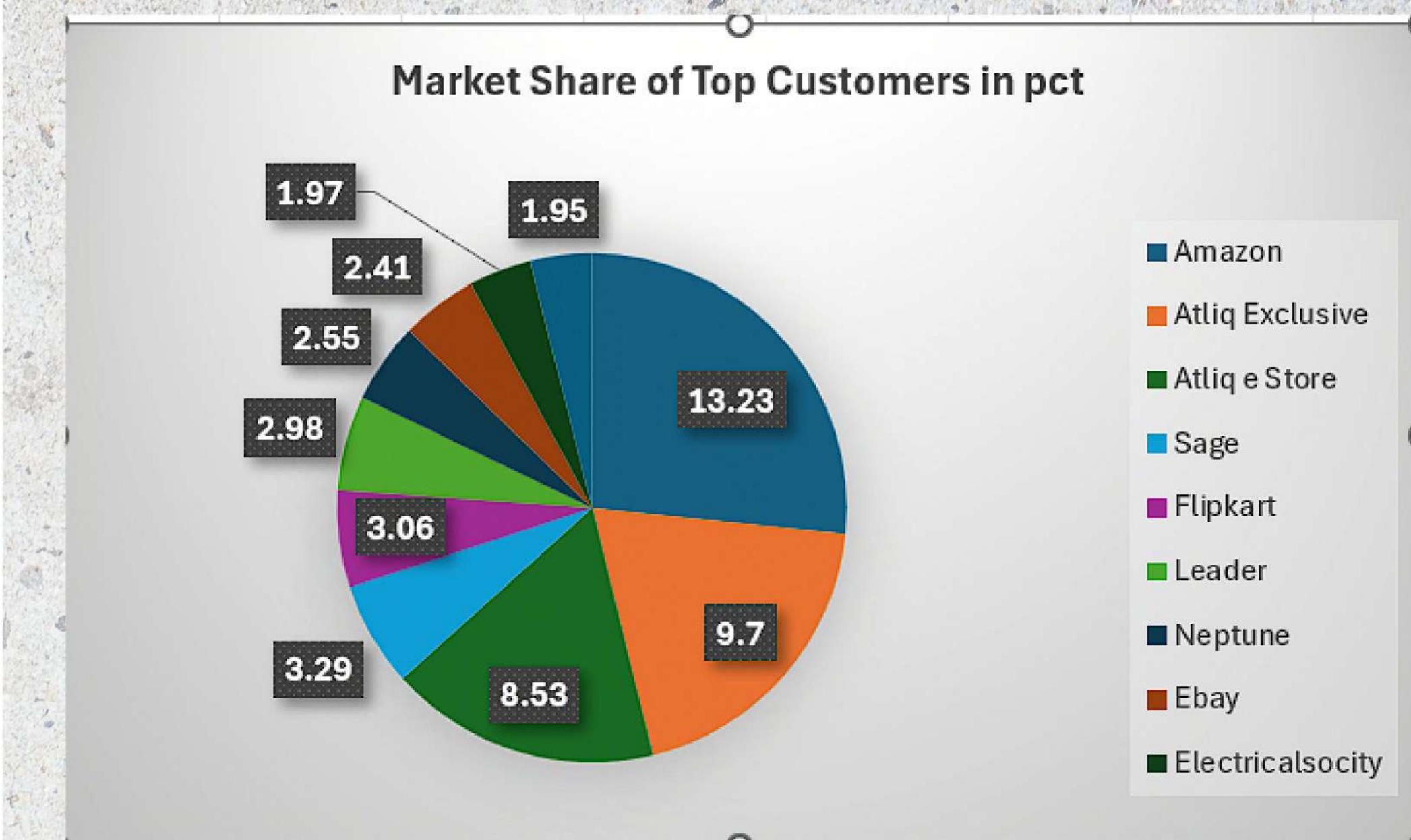
Window function to display market share of customer in percentage of Total Net Sales

```
With CTE1 as(
    Select
        customer,
        Round(sum(Net_sales)/1000000,2) as Net_Sales
    from net_sales n
    Join dim_customer c
    using(customer_code)
    Where fiscal_year = 2021
    Group by customer
    order by 2 desc )

Select
    *,
    net_sales*100/sum(net_sales) over() as market_pct
from CTE1;
```

Output

customer	Net_Sales	market_pct
Amazon	109.03	13.233402
Atliq Exclusive	79.92	9.700206
Atliq e Store	70.31	8.533803
Sage	27.07	3.285593
Flipkart	25.25	3.064692
Leader	24.52	2.976089
Neptune	21.01	2.550067
Ebay	19.88	2.412914
Electricalsocity	16.25	1.972327
Synthetic	16.10	1.954121
Electricalslytical	15.64	1.898289
Acclaimed St...	14.32	1.738075
Propel	14.14	1.716228
Novus	12.91	1.566938
Expression	12.90	1.565724
Reliance Digital	12.75	1.547518
walmart	12.63	1.532953



Region wise sales in million and market share in percentage

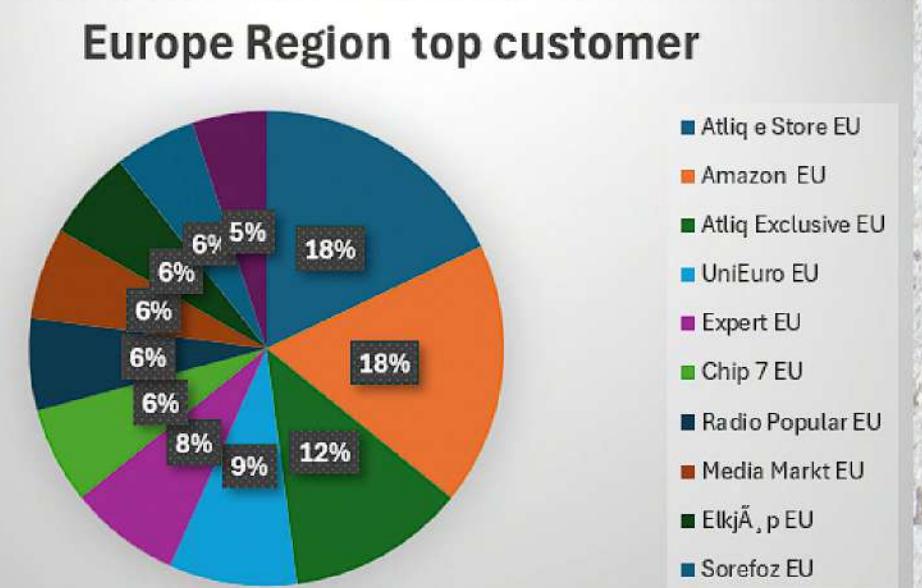
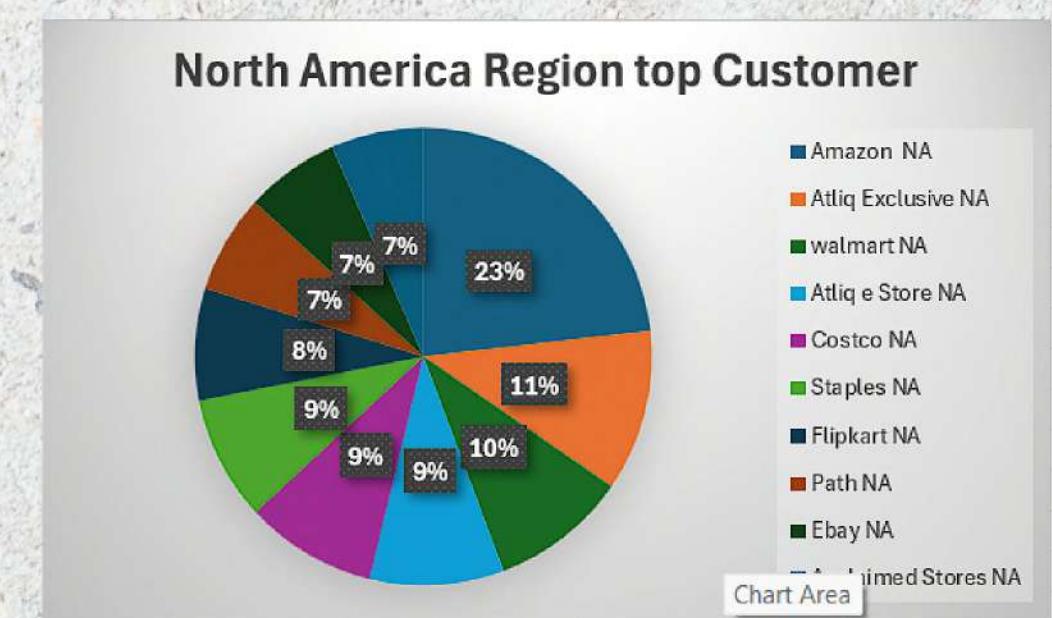
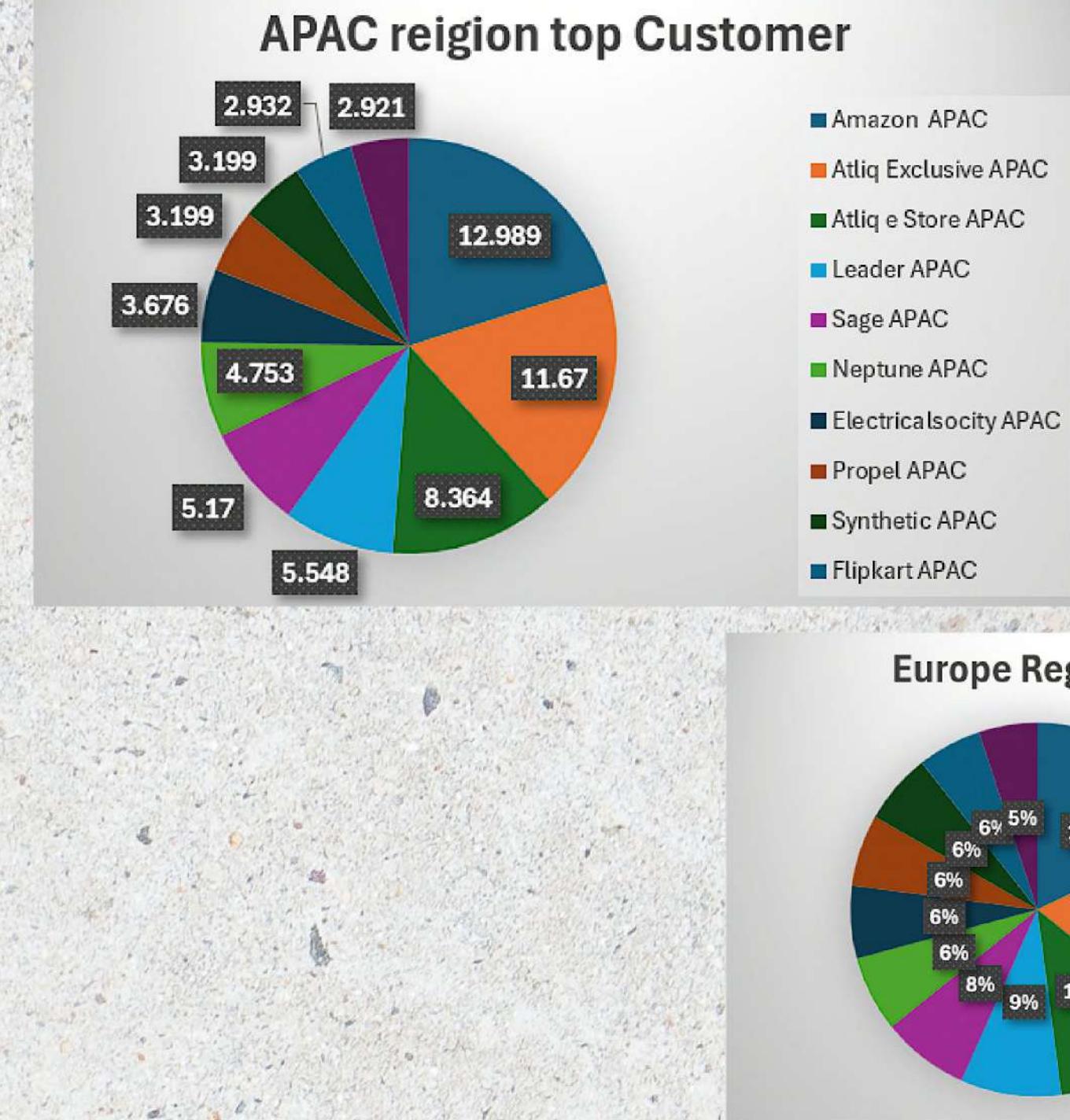
```
With Region_wise_sales AS(  
    Select  
        c.customer,  
        c.region,  
        Round(sum(Net_sales)/1000000,2) as Net_Sales  
    from net_sales n  
    Join dim_customer c  
    using (customer_code)  
    Where fiscal_year = 2021  
    Group by c.customer , c.region  
    order by 2 desc)  
Select  
    *,  
    net_sales*100/sum(net_sales) over(partition by region) as Region_wise_share_pct  
from Region_wise_sales  
order by region, net_sales desc;
```

Output

Result Grid | Filter Rows: Export: Wrap Cell Content:

customer	region	Net_Sales	Region_wise_share_pct
Amazon	APAC	57.41	12.988688
Atliq Exclusive	APAC	51.58	11.669683
Atliq e Store	APAC	36.97	8.364253
Leader	APAC	24.52	5.547511
Sage	APAC	22.85	5.169683
Neptune	APAC	21.01	4.753394
Electricalsocity	APAC	16.25	3.676471
Propel	APAC	14.14	3.199095
Synthetic	APAC	14.14	3.199095
Flipkart	APAC	12.96	2.932127
Novus	APAC	12.91	2.920814
Expression	APAC	12.90	2.918552
Girias	APAC	11.30	2.556561
Vijay Sales	APAC	11.27	2.549774
Ebay	APAC	11.14	2.520362
Reliance Digital	APAC	11.10	2.511312
Electricalslytical	APAC	11.08	2.506787

Result 11



Query to find Top 3 product in each Division

```
with CTE1 as (
  Select
    p.division,
    p.product,
    sum(sold_quantity) as total_qty
  from fact_sales_monthly s
  Join dim_product p
  using(product_code)
  where fiscal_year = 2021
  group by p.product),
CTE2 as (Select
  *,
  dense_rank() over(partition by division order by total_qty desc) as drnk_
  from CTE1)
Select
  *
from CTE2
where drnk_ <= 3;
```

Output

division	product	total_qty	drnk_
N & S	AQ Pen Drive DRC	2034569	1
N & S	AQ Digit SSD	1240149	2
N & S	AQ Clx1	1238683	3
P & A	AQ Gamers Ms	2477098	1
P & A	AQ Maxima Ms	2461991	2
P & A	AQ Master wireless x1 Ms	2448784	3
PC	AQ Digit	135092	1
PC	AQ Gen Y	135031	2
PC	AQ Elite	134431	3

Query to find Top 3 countries in every Region

```
with CTE1 as(
  Select
    c.market,
    c.region,
    round(sum(net_sales)/1000000 , 2)as Net_sales_mln
  from net_sales n
  Join dim_customer c
  using(customer_code)
  where fiscal_year = 2021
  Group by c.market),
  CTE2 as (Select
    *,
    dense_rank() over(partition by region order by Net_sales_mln desc) as drnk_
    from CTE1 )
Select
  *
from CTE2
where drnk_ <= 3;
```

Output

market	region	Net_sales_mln	drnk_
India	APAC	210.67	1
South Korea	APAC	64.01	2
Philippines	APAC	41.88	3
United Kingdom	EU	44.73	1
France	EU	37.82	2
Norway	EU	20.19	3
Mexico	LATAM	1.20	1
Brazil	LATAM	1.00	2
Chile	LATAM	0.81	3
USA	NA	132.05	1
Canada	NA	45.89	2