



CONSUMER GOODS ANALYTICS OF ATLIQ HARDWARE

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BACKGROUND

AtliQ Hardware, a global leader in hardware products such as PCs, printers, mice, and computers, serves customers worldwide.

As the company's data grew, relying on Excel led to slow processing and system unresponsiveness. To overcome these challenges, AtliQ initiated a project to upgrade its data management system by transitioning to MySQL, a more robust and scalable database solution.

To facilitate this transition, AtliQ hired data analysts to migrate data from Excel to MySQL. This shift enables the company to derive valuable insights, enhance decision-making, and streamline operations, ultimately driving greater efficiency and business growth.

PROJECT OVERVIEW

Objective:

This project aims to analyze AtliQ Hardware's database to extract valuable insights that drive strategic decision-making.

Database Scope:

- The dataset includes key information on products, customers, sales, and regions, offering a comprehensive view of business operations.

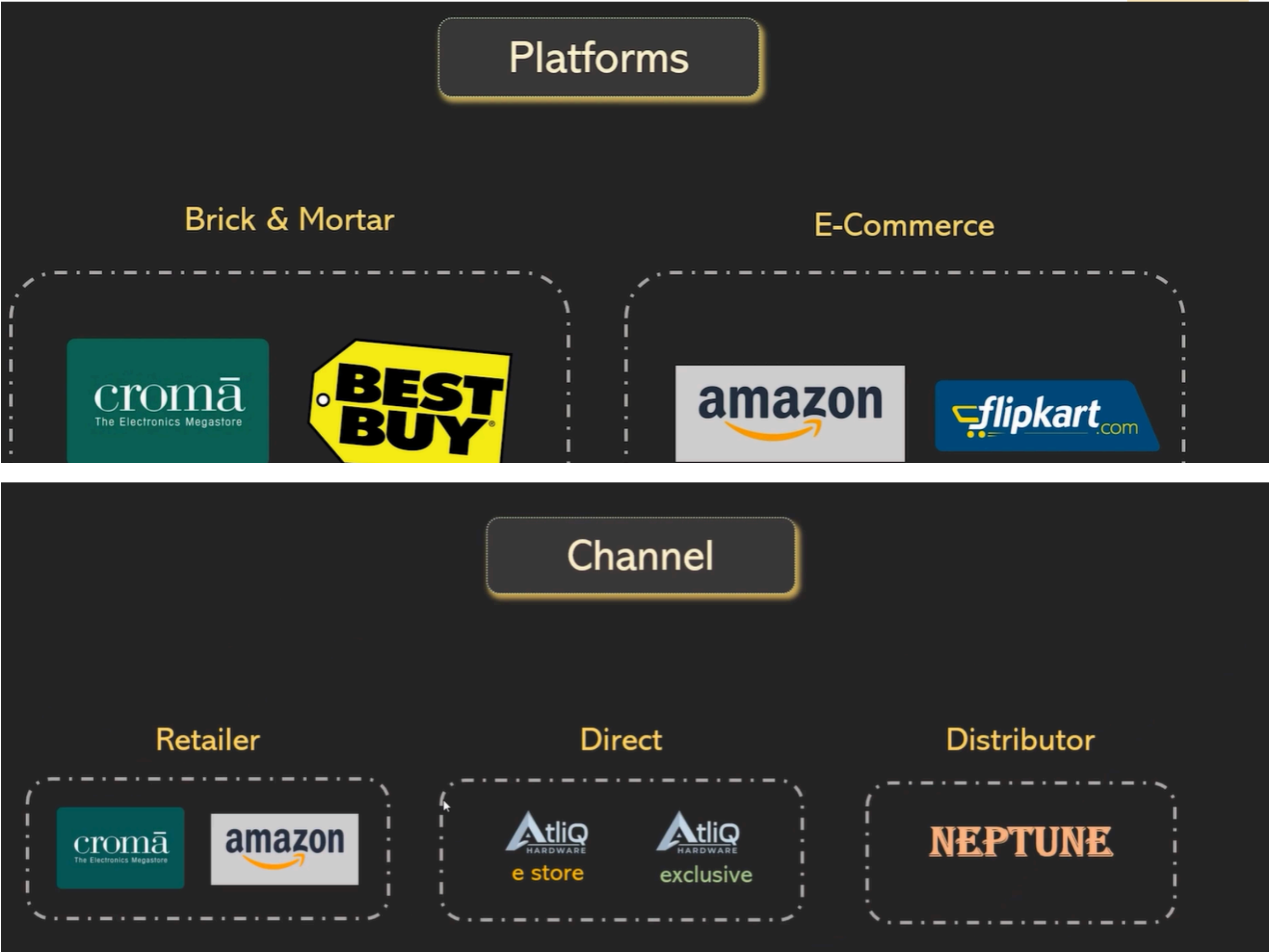
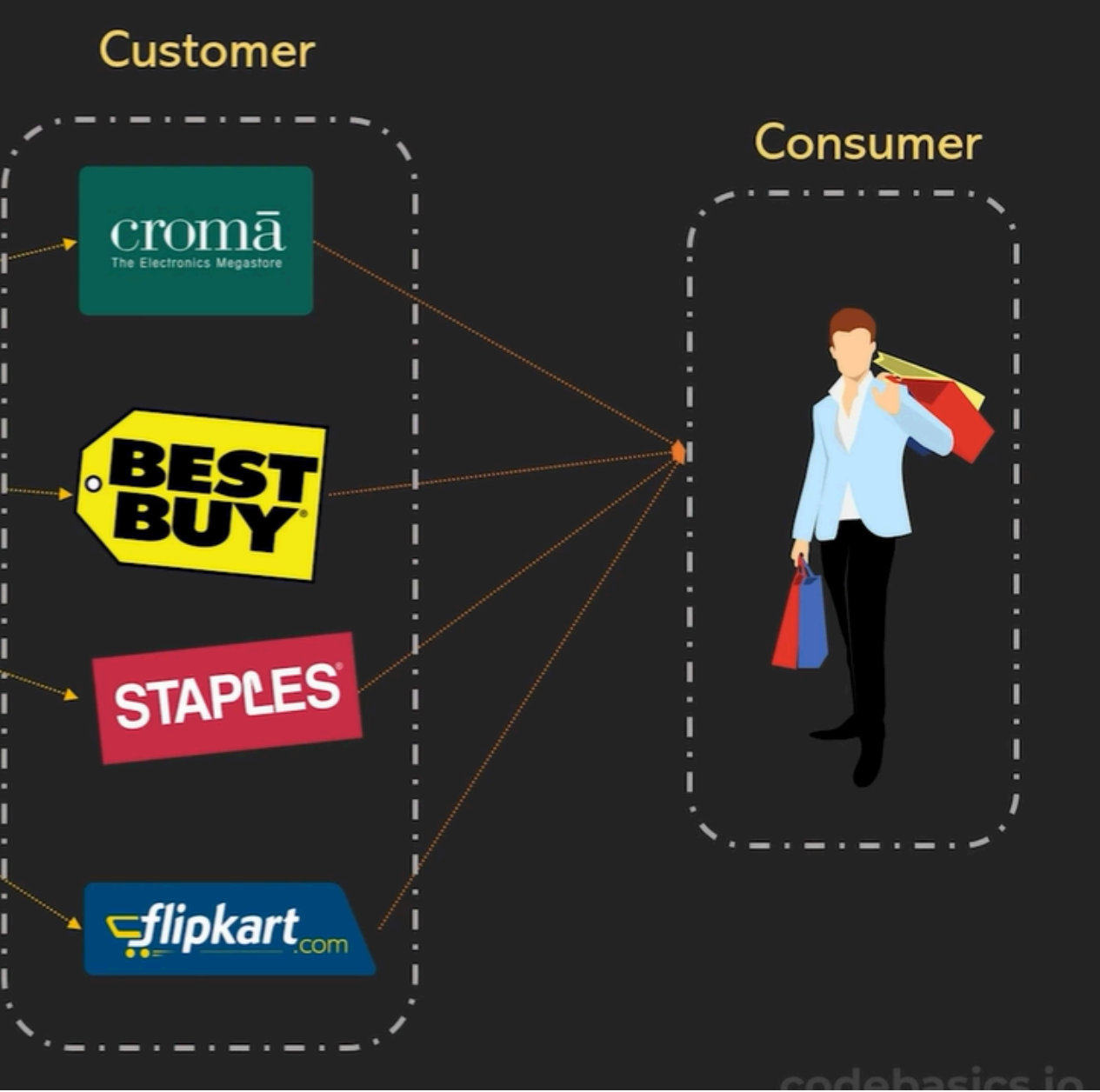
Key Focus Areas:

- Revenue Patterns – Identifying sales trends and performance metrics.
- Market Trends – Understanding regional and industry-specific dynamics.
- Consumer Behavior – Analyzing purchasing patterns to enhance customer engagement.

Outcome:

- By leveraging data analysis, this project will enable data-driven decisions, optimize business strategies, and improve operational efficiency.

BUSINESS MODEL



DATASETS & DATABASE FEATURES

Dataset Overview:

- The project utilizes fact and dimension tables provided by AtliQ Hardware, ensuring structured and efficient data storage.

Views:

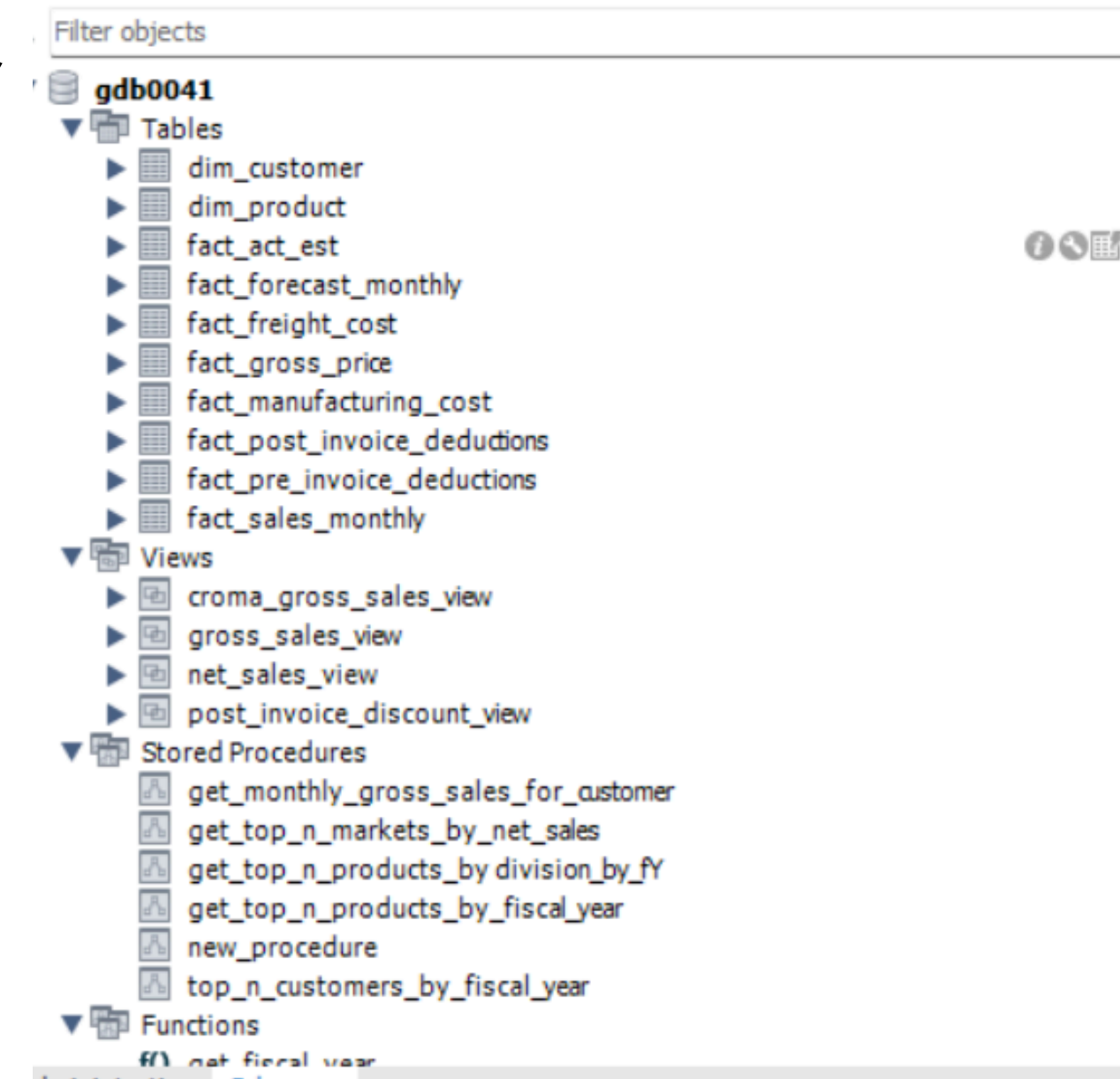
- Enable the reuse of complex SELECT statements without redundancy.
- Simplify querying large datasets by eliminating repetitive logic.

Stored Procedures:

- Precompiled SQL statements that encapsulate business logic.
- Enhance reusability, performance, security, and maintainability.
- Reduce network traffic by processing data within the database.


Functions:

- Stored programs that return a single value.
- Improve modularity and reusability in SQL queries.
- Help encapsulate logic for calculations and data manipulations.



Croma India product wise sales report for fiscal year 2021

 Attach

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 Link issue



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As a product owner, **I want to** generate a report of individual product sales (aggregated on a monthly basis at the product code level) for Croma India customer for FY=2021 **so that** I can track individual product sales and run further product analytics on it in excel.

The report should have the following fields,

1. Month
2. Product Name
3. Variant
4. Sold Quantity
5. Gross Price Per Item
6. Gross Price Total


```

SELECT
    s.date,
    s.product_code,
    p.product,
    p.variant,
    s.sold_quantity,
    g.gross_price AS gross_price_per_item,
    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 g.product_code = s.product_code
    AND g.fiscal_year = GET_FISCAL_YEAR(s.date)
WHERE
    customer_code = 90002002
    AND GET_FISCAL_YEAR(date) = 2021
ORDER BY date ASC

```

date	product_code	product	variant	sold_quantity	gross_price_per_item	gross_price_total
2020-09-01	A0721150402	AQ GT 21	Plus 1	62	39.1465	2427.08
2020-09-01	A0721150403	AQ GT 21	Plus 2	57	39.2990	2240.04
2020-09-01	A0721150404	AQ GT 21	Premium	182	39.1215	7120.11
2020-09-01	A0821150501	AQ Marquee P3	Standard	120	40.5013	4860.16
2020-09-01	A0821150502	AQ Marquee P3	Plus 1	106	43.2966	4589.44
2020-09-01	A0821150503	AQ Marquee P3	Plus 2	172	42.3841	7290.07
2020-09-01	A0821150504	AQ Marquee P3	Premium	197	44.7044	8806.77
2020-09-01	A0921150601	AQ Marquee P4	Standard	56	45.0813	2524.55
2020-09-01	A1018150101	AQ 5000 Series Electron 9 5900X Desktop Proce...	Standard	91	111.1036	10110.43

Generate a yearly report for Croma India where there are two columns

1. Fiscal Year

2. Total Gross Sales amount In that year from Croma

```
select
    get_fiscal_year(date) as fiscal_year,
    sum(round(sold_quantity*g.gross_price,2)) as yearly_sales
from fact_sales_monthly s
join fact_gross_price g
on
    g.fiscal_year=get_fiscal_year(s.date) and
    g.product_code=s.product_code
where
    customer_code=90002002
group by get_fiscal_year(date)
order by fiscal_year;
```

fiscal_year	yearly_sales
2018	1324097.48
2019	3555079.19
2020	6502182.12
2021	23216512.73
2022	44638199.11

Generate a report getting Top 5 markets by Net Sales in Fiscal Year 2021

```
1 • SELECT market,round(sum(net_sales)/1000000,2) as net_sales_mln
2 FROM gdb0041.net_sales_view
3 where fiscal_year = 2021
4 group by market
5
6 order by net_sales_mln desc
7 limit 5;
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:	Fetch
market	net_sales_mln				
India	210.67				
USA	132.05				
South Korea	64.01				
Canada	45.89				

Generate a report getting Top 5 products by Net Sales in Fiscal Year 2021

```
9 • select product,round((sum(net_sales))/1000000,2) as net_sales_mln
10 from net_sales_view
11 where fiscal_year = 2021
12 group by product
13 order by net_sales_mln desc
14 limit 5;
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:
product	net_sales_mln			
AQ BZ Allin1	33.75			
AQ Qwerty	27.84			
AQ Trigger	26.95			
AQ Gen Y	23.58			
AQ Maxima	22.32			

Generate a report getting Top 5 customers by Net Sales in Fiscal Year 2021

```
11 • SELECT customer,round((sum(net_sales))/1000000,2) as net_sales_mln
12 FROM gdb0041.net_sales_view
13 where fiscal_year = 2021
14 group by customer
15 order by net_sales_mln desc
16 limit 5;
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:	Fetch rows:
	customer	net_sales_mln				
▶	Amazon	109.03				
	Atliq Exclusive	79.92				
	Atliq e Store	70.31				
	Sage	27.07				
	Flipkart	25.25				

Find customer wise net sales distribution per region for FY 2021

```
16  -- find out customer wise net sales percentage contribution
17  with cte1 as (
18      select s.customer, round(sum(net_sales)/1000000,2) as net_sales_mln
19      from net_sales_view s
20      join dim_customer c
21      on s.customer_code=c.customer_code
22      where s.fiscal_year=2021
23      group by customer
24  )
25  select *,
26  net_sales_mln*100/sum(net_sales_mln) over() as pct_net_sales
27  from cte1
28  order by net_sales_mln desc
```

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

	customer	net_sales_mln	pct_net_sales
▶	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

find out customer wise net sales percentage contribution

```
1  -- Find customer wise net sales distribution per region for FY 2021
2  • with cte1 as(
3      select c.customer,c.region,round((sum(net_sales))/1000000,2) as net_sales_mln
4      from net_sales_view n
5      join dim_customer c
6      on c.customer_code = n.customer_code
7      where fiscal_year = 2021
8      group by c.customer,c.region)
9      select *,
10     net_sales_mln*100/sum(net_sales_mln) over(partition by region) as contribution_pct
11     from cte1
12     order by region,net_sales_mln desc;
13
14
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: [A](#)

customer	region	net_sales_mln	contribution_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

Find out top 3 products from each division by total quantity sold in a given year

```
2 • with cte1 as
3   (select
4       p.division,
5       p.product,
6       sum(sold_quantity) as total_qty
7   from fact_sales_monthly s
8   join dim_product p
9       on p.product_code=s.product_code
10  where fiscal_year=2021
11  group by p.product),
12  cte2 as
13  (select
14      *,
15      dense_rank() over (partition by division order by total_qty desc) as drnk
16  from cte1)
17  select * from cte2 where drnk<=3
```

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



THANK YOU