

DAY 5



Customer

Consumer

cromā
The Electronics Megastore

BEST BUY®

STAPLES®

flipkart.com





Platforms

Brick & Mortar



E-Commerce





Retailer



Direct



Distributor

NEPTUNE

Kem-CHHO

Babu

Teri-naki



Channel

Retailer



Direct



Distributor





Gross Price: 30 \$



Pre-Invoice Deductions

Yearly discount agreements made at the beginning of
each financial year



Gross Price: 30 \$
- Pre-invoice Deduction: 2
= Net Invoice Sales: 28



Promotional offers





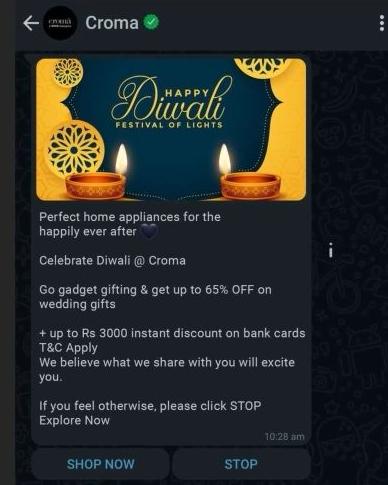
Gross Price: 30 \$

- Pre-invoice Deduction: 2

= Net Invoice Sales: 28



Promotional offers





Gross Price: 30 \$
- Pre-invoice Deduction: 2
= Net Invoice Sales: 28



Promotional offers



Promotional offers

+

Placement Fees

+

Performance Rebate



Gross Price: 30 \$
- Pre-invoice Deduction: 2
= Net Invoice Sales: 28



Promotional offers



Promotional offers

+

Placement Fees

+

Performance Rebate

=

Post-invoice Deductions



Gross Price: 30 \$
- Pre-invoice Deduction: 2
= Net Invoice Sales: 28
- Post-invoice Deductions: 1

Cronfit
Cloud ERP

**Net sales is basically the
Revenue of AtliQ**



Gross Price: 30 \$
- Pre-invoice Deduction: 2
= Net Invoice Sales: 28
- Post-invoice Deductions: 3



Promotional offers



Promotional offers

+

Placement Fees

+

Performance Rebate

=

Post-invoice Deductions



Gross Price: 30 \$

- Pre-invoice Deduction: 2

= Net Invoice Sales: 28

- Post-invoice Deductions: 3

= Net Sales: 25

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The Electronics Megastore



Gross Price: 30 \$

- Pre-invoice Deduction: 2

= Net Invoice Sales: 28

- Post-invoice Deductions: 3

= Net Sales: 25

- Cost Of Goods Sold (COGS): 20

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Manufacturing Cost

+

Freight
(Transportation)

+

Other Cost

=

COGS



Gross Price: 30 \$

- Pre-invoice Deduction: 2

= Net Invoice Sales: 28

- Post-invoice Deductions: 3

= Net Sales: 25

- Cost Of Goods Sold (COGS): 20

= Gross Margin: 5

Gross Margin % of Net Sales (GM/NS): 20 %

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IMPORTANT TERMINOLOGIES

ETL , OLAP vs OLTP

Data
Warehouse

ETL

OLAP

OLTP



Customer

Consumer





Software Engineer



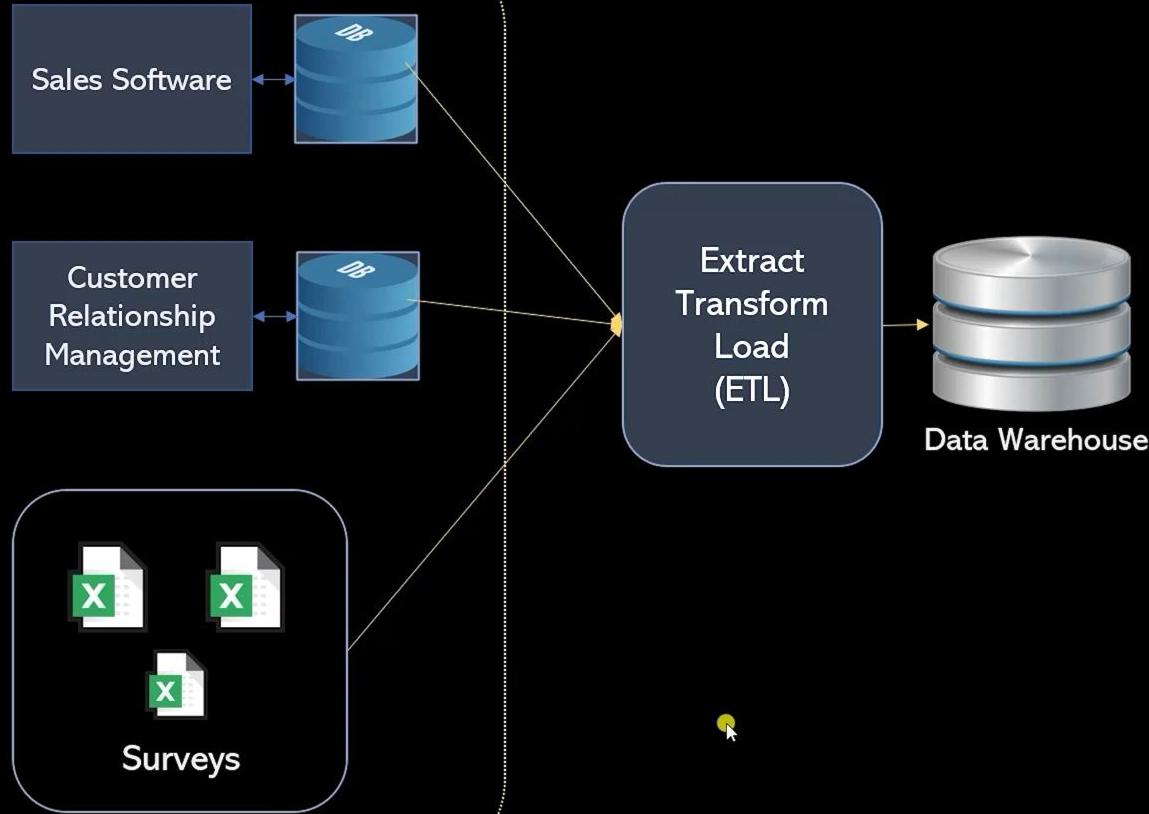
Software Engineer



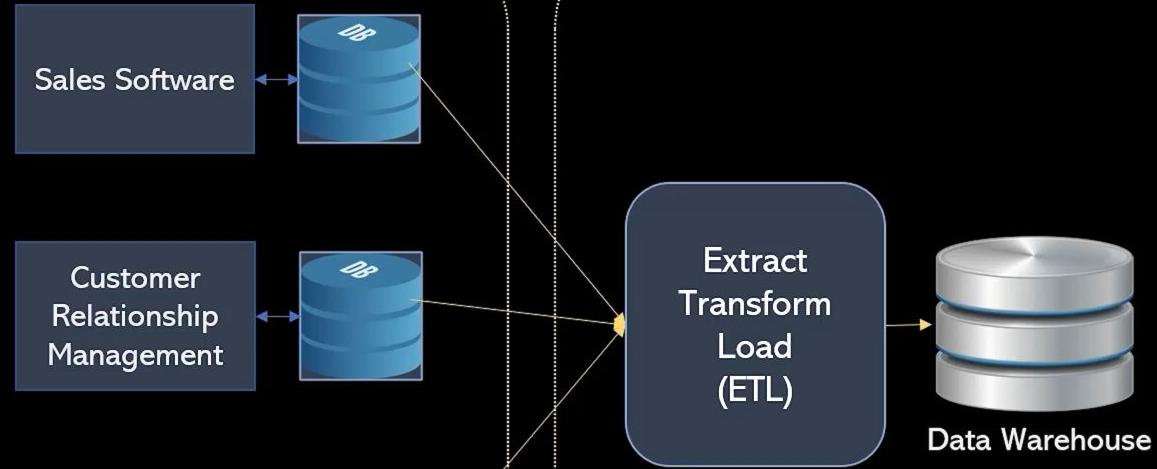
Data Warehouse



Software Engineer



Software Engineer



Software Engineer

Data Engineer

Sales Software



Customer Relationship Management



Extract
Transform
Load
(ETL)



Data Warehouse

SQL



Data
Analytics

Currency Normalization
Derived Columns
Aggregation

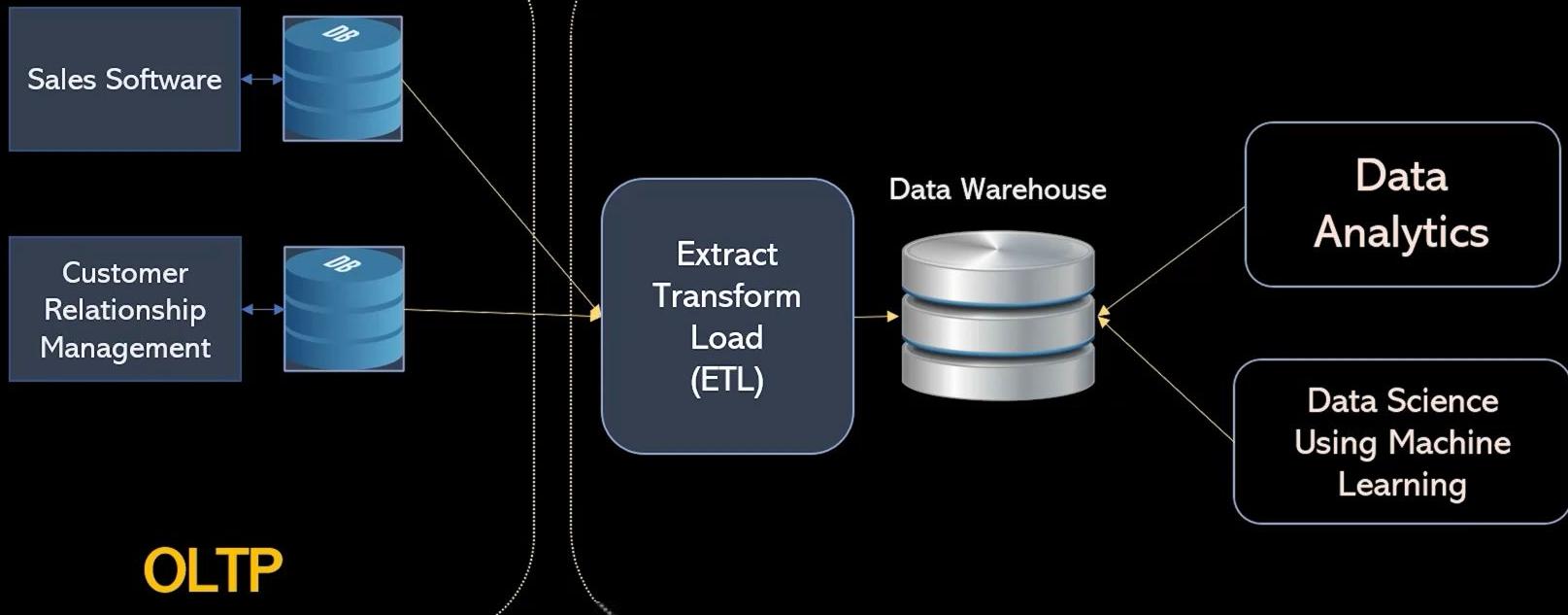


Surveys

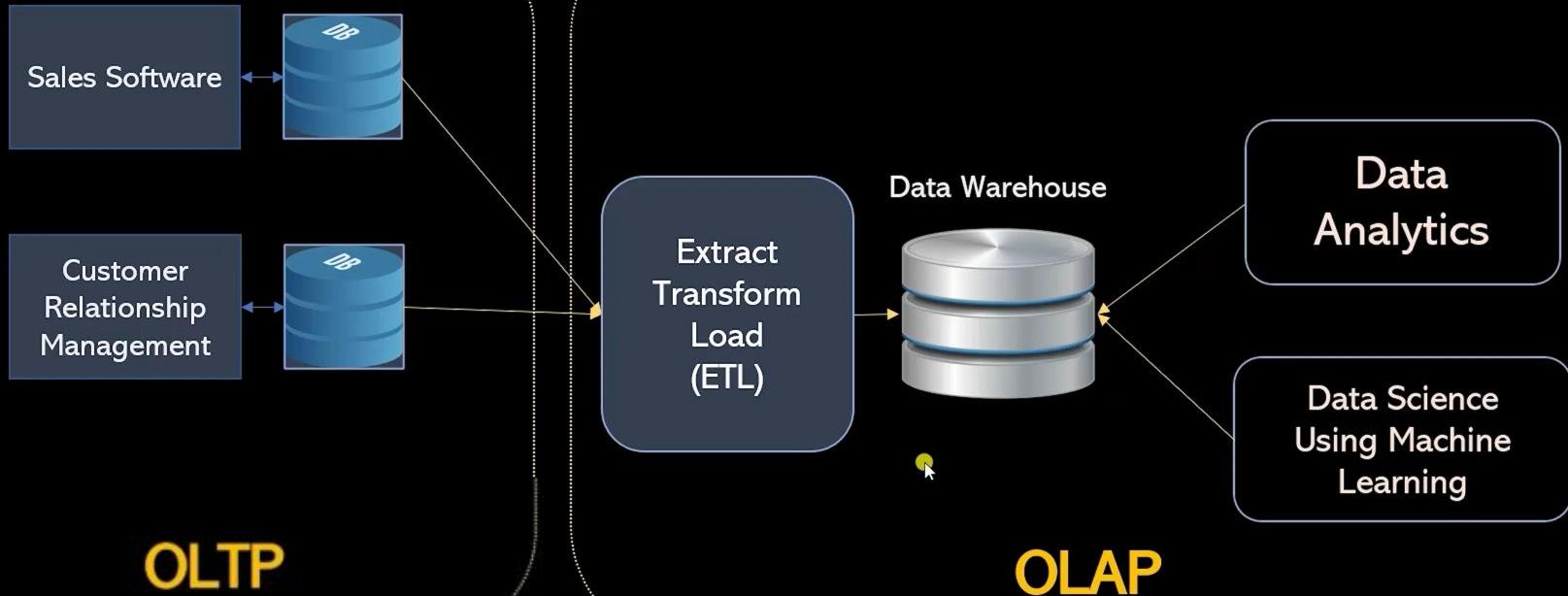
Software Engineer

Data Engineer

Data Analyst, Scientist



**OLTP = Online
Transaction Processing**



**OLTP = Online
Transaction Processing**

OLAP = Online Analytical Processing

Data Catalog

| A | B | C | D |
|-----------|------------------------------------|---|--------------|
| DB Server | TableName | Description | Contact |
| GDB041 | FactForecastMonthly | Contains historical forecast, current forecast at monthly level | Jarvis Singh |
| GDB041 | FactSalesMonthly | Contains sales up to date at Monthly level | Jarvis Singh |
| GDB013 | Regional Forecast | Forecast at different levels of granularity as per region | Loki Lal |
| GDB014 | Regional Sales | Sales at different levels of granularity as per region | Loki Lal |
| GDB041 | ManufacturingCost | Currency in USD, data at fiscal year level | Jarvis Singh |
| GDB041 | PostInvoiceDeductions | Currency in USD, data at monthly level | Jarvis Singh |
| GDB017 | Regional Cost & Deductions | Local Currency | Loki Lal |
| GDB041 | PreInvoiceDeductions | Currency in USD, data at fiscal year level | Jarvis Singh |
| GDB019 | RegionalMarkUpCost | Local Currency | Loki Lal |
| GDB020 | RegionalOperatingExpenses | Local Currency | Loki Lal |
| GDB041 | DimCustomer, DimProduct, DimMarket | | Loki Lal |
| GDB022 | Regional Freight | Local Currency | Loki Lal |
| GDB041 | FreightCost | 'Freight' and 'other costs' is % of Net Sales | Jarvis Singh |
| GDB024 | DailySales | | Loki Lal |
| GDB041 | GrossPrice | | Jarvis Singh |

Note

Updated DB server name "gdb0041"

Contains historical forecast, current forecast at monthly level

Data Catalog

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Note

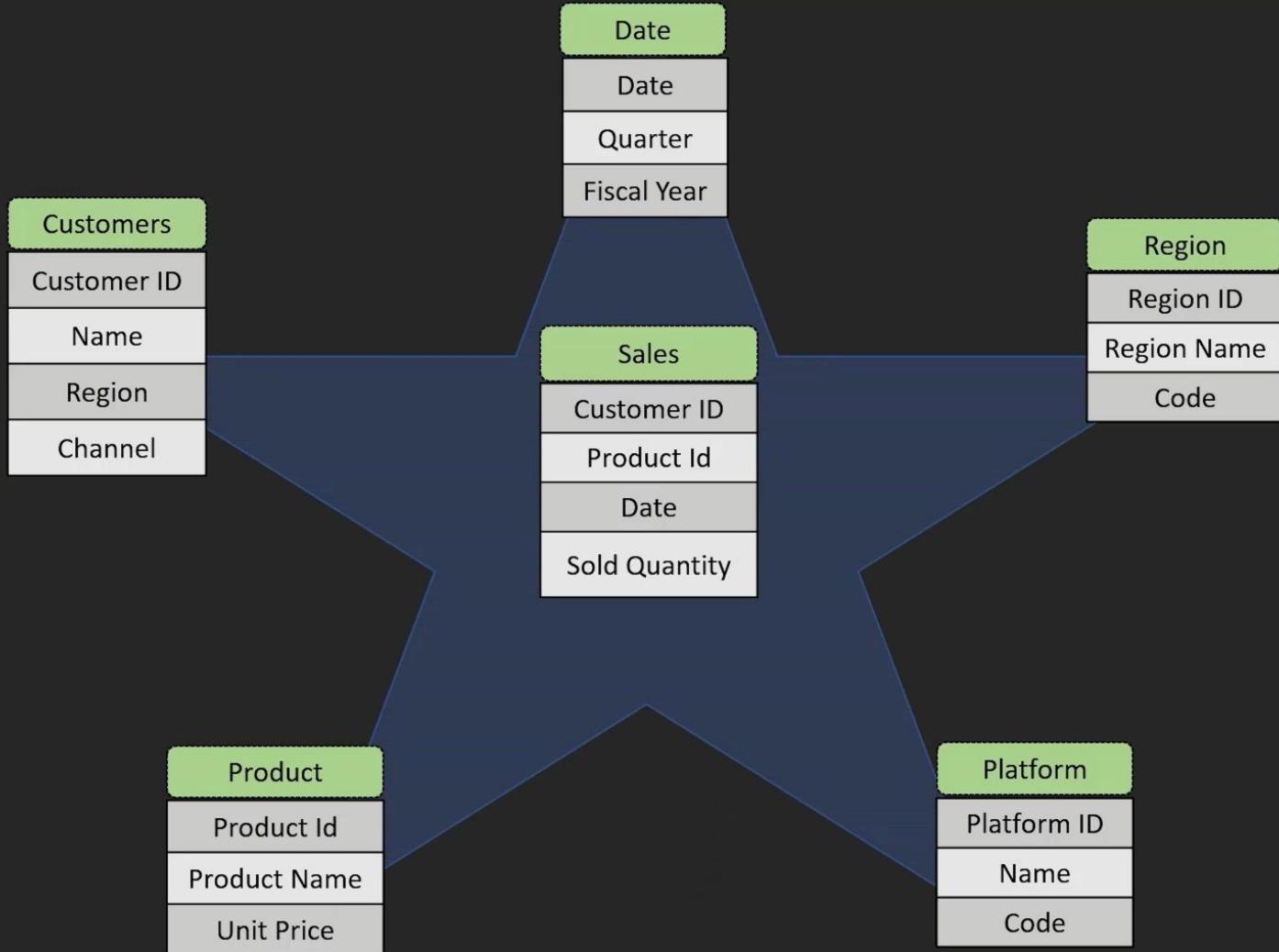
Updated DB server name "gdb0041"

Takeaways

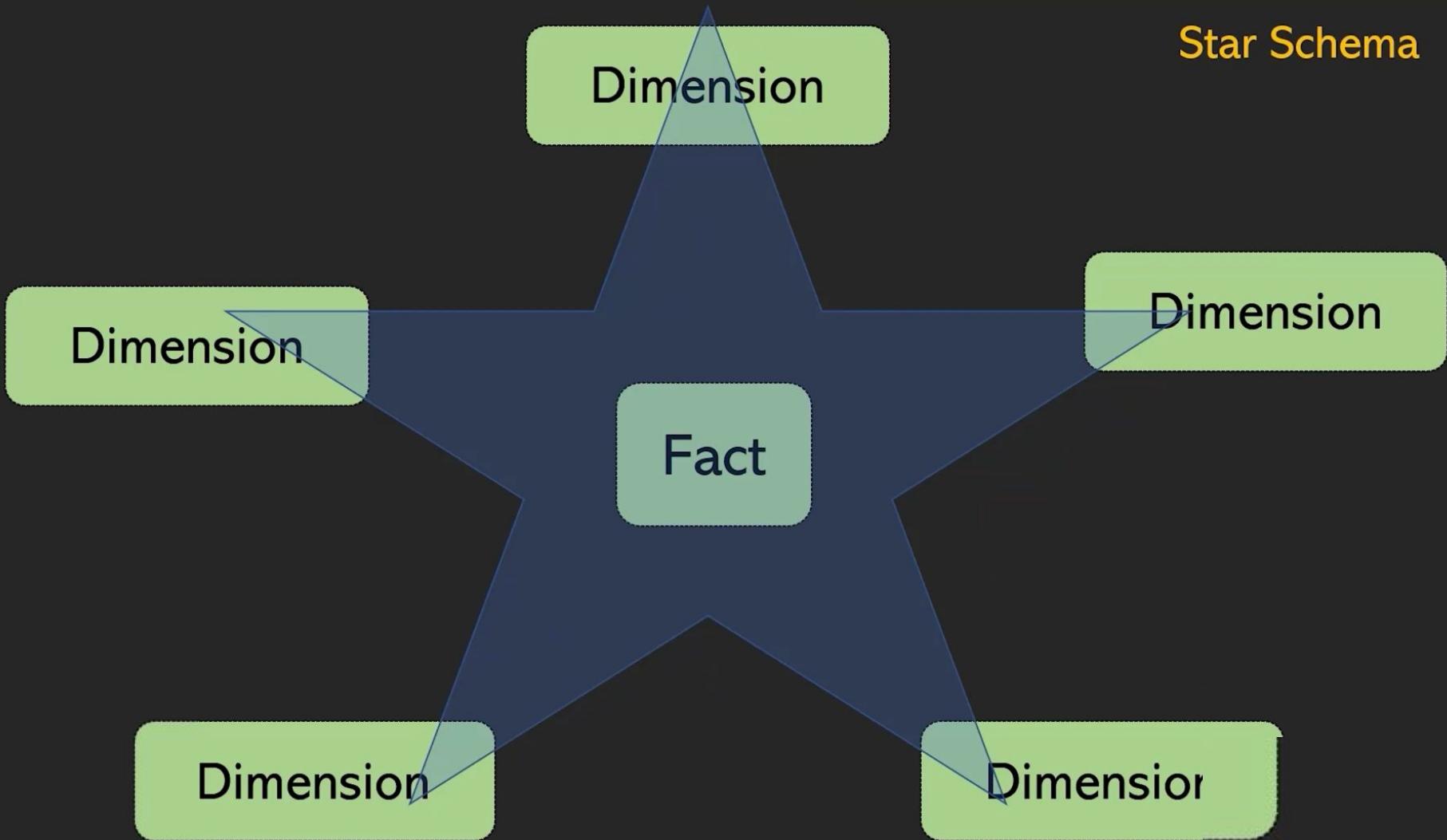
- Companies usually have multiple softwares to fulfil their various needs and each of them will generate data of its own
- Data generated by these softwares are moved to a data warehouse on which the query is performed for analysis
- **ETL** means Extracting data from databases, Transforming them to based on analytic needs and finally Loading them into database tables

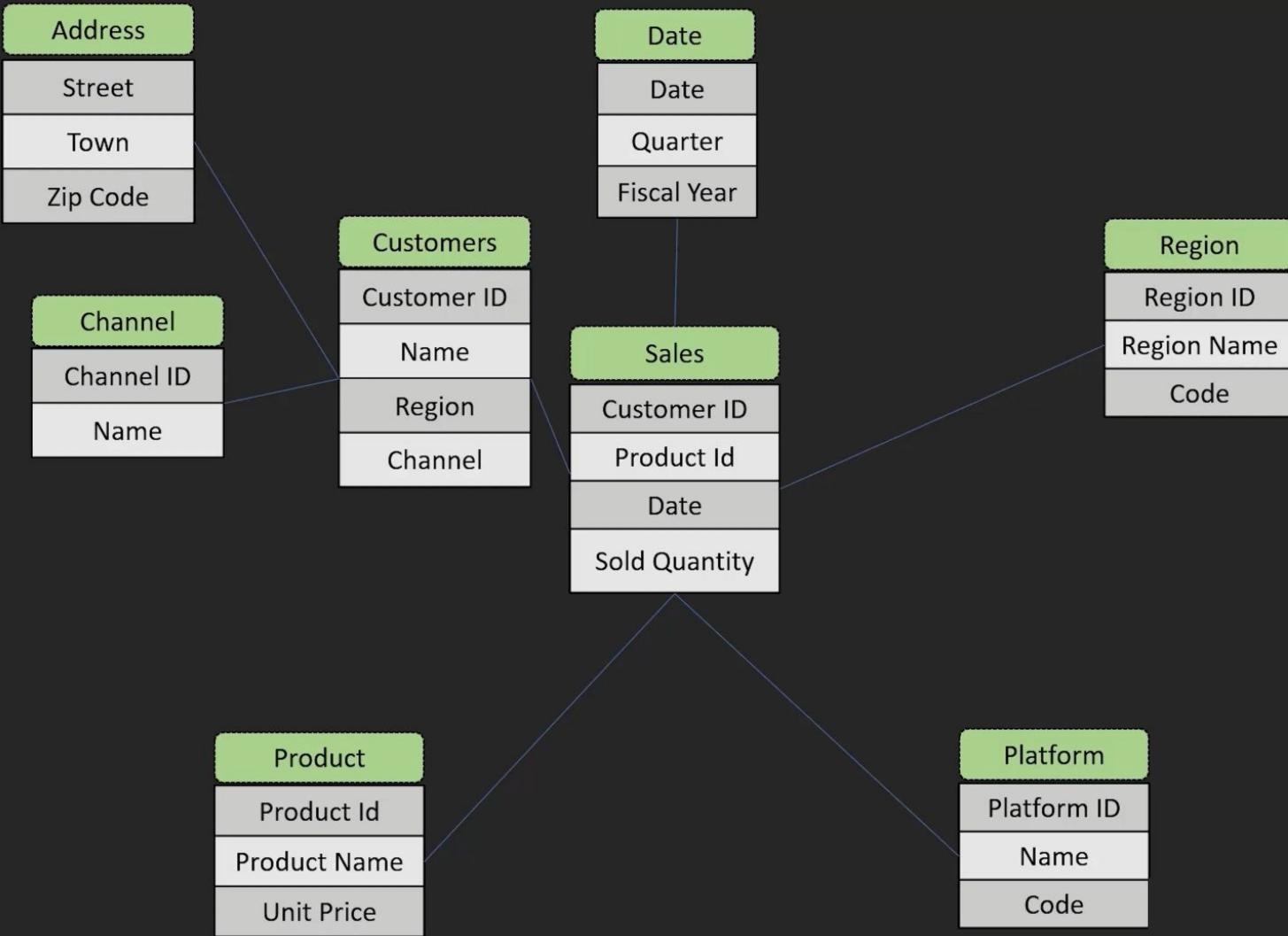
| Sales |
|---------------|
| Customer ID |
| Product Id |
| Date |
| Sold Quantity |



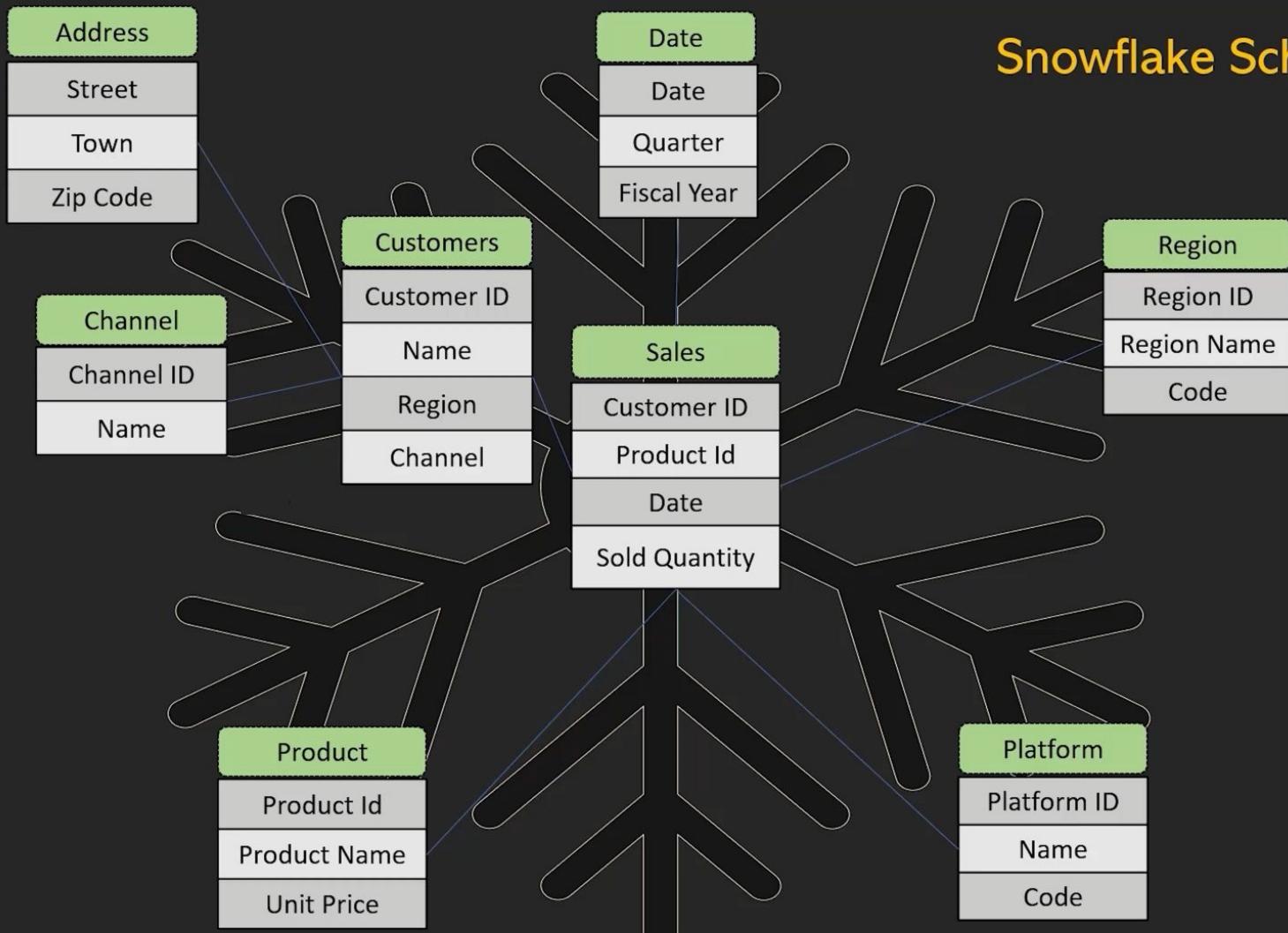


Star Schema





Snowflake Schema



Calendar Year 2021



Calendar Year 2022



9

8

9

Fiscal Year 2022

Fiscal Year 2023

Takeaways

- The fact table contains **the transaction data (Sales Data)** and the dimension table contains **the attributes of the dataset such as customers, Region etc.**
- **Dimension tables** contain at least one column which is unique and the same is not applicable to fact tables
- Star Schema is a set-up in which the fact table is placed in the centre surrounded by **dimension tables resembling the design of a star**
- A schema is referred to as snowflake when a dimension table is **further extended with another dimension table to provide more attributes resembling the shape of a snowflake**
- **Fiscal year** is a norm that a company uses where the starting month of the year is usually different from the calendar year