



Data Warehouse Links & Notes

UNIT 2

Snowflake Schema

- [Snowflake Schema in Data Warehouse Model](#)

Explanation of the Snowflake Schema, a logical arrangement of tables in a multidimensional database that resembles a snowflake shape.

Difference Between Star Schema and Snowflake Schema

- [Difference Between Star Schema and Snowflake Schema](#)

Comparison of two common data warehouse schemas—Star and Snowflake—highlighting structure, complexity, and efficiency.

Fact Constellation

- [Fact Constellation in Data Warehouse Modelling](#)

Overview of Fact Constellation (Galaxy Schema), where multiple fact tables share dimension tables, representing complex data models.

Slowly Changing Dimensions (SCD)

- [Slowly Changing Dimensions](#)

Describes techniques to manage and track changes in dimension data over time in a data warehouse.

Data Granularity

- [Data Granularity](#)

Explains the level of detail (granularity) stored in data warehouses and how it affects data analysis and storage.

UNIT 3

ETL Process in Data Warehouse

- [ETL Process in DW](#)

A detailed explanation of the Extract, Transform, Load (ETL) process, essential for moving and

processing data in data warehousing.

Data Transformation

- [What is Data Transformation?](#)

Introduction to data transformation techniques that convert raw data into a format suitable for analysis and storage.

Data Loading

- [Data Loading in Data Warehouse](#)

Covers methods and considerations for loading data into a data warehouse efficiently and effectively.

UNIT 4

OLAP Servers

- [OLAP Servers](#)

Insight into OLAP (Online Analytical Processing) servers used for complex query processing in multidimensional databases.

OLAP Architecture

- [What is OLAP?](#)

An introduction to OLAP systems, their architecture, and how they support analytical and business intelligence operations.

OLAP Operations

- [OLAP Operations in DBMS](#)

Discusses core OLAP operations like roll-up, drill-down, slicing, and dicing, enabling in-depth data analysis.

- [OLAP Operations - TPoint](#)

Additional resource explaining the OLAP operations in simple terms with examples.

Types of OLAP

- [Data Warehouse - Types of OLAP](#)

Detailed comparison of ROLAP, MOLAP, and HOLAP types, outlining their strengths and weaknesses.

ROLAP vs MOLAP vs HOLAP

- [ROLAP vs MOLAP vs HOLAP – Comparison Guide](#)

Differentiates between the three OLAP models based on performance, scalability, and storage mechanisms.

- [Leveraging OLAP for Advanced Data Analysis – Kanda Software Blog](#)

Offers in-depth insights into how each OLAP type serves different business needs and includes practical use-case considerations.

Visual Comparison

Types of OLAP Systems		
Rolap	Molap	Holap
1. Acronym		
Relational online analytical processing	Multi-dimensional online analytical processing	Hybrid online analytical processing
2. Storage Methods		
Data is stored on the main data warehouse	Data is stored on the registered database MDDb	Data is stored on the relational databases
3. Fetching Methods		
Data is fetched from the main repository	Data is fetched from the Proprietary database	Data is fetched from the relational databases
4. Data Arrangement		
Data is arranged and saved in the form of tables with rows and columns	Data is arranged and stored in the form of data cubes	Data is arranged in multidimensional form
5. Volume		
Enormous data is processed	Limited data which is kept in proprietary is processed	Large data can be processed
6. Technique		
It works with SQL	It works with Sparse Matrix technology	It uses both Sparse Matrix technology and SQL
7. Designed View		
It has dynamic access	It has a static access	It has dynamic access
8. Response Time		
It has Maximum response time	It has Minimum response time	It takes Minimum response time

OLAP vs OLTP

- **Difference Between OLAP and OLTP in DBMS**

Comparison between OLAP (analytical) and OLTP (transactional) systems, focusing on use-cases and system design.