Activity -1

Day-1 Summary

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1) Introduction to Data Warehousing: Data warehousing is a system for storing and analyzing large volumes of data from various sources to support decision-making and reporting.

2) Purpose of Data Warehouse: The main purpose is to consolidate data from multiple sources, enabling efficient analysis, reporting, and business intelligence.

3) Data Warehouse Architecture: Typically includes layers like data sources, staging, data storage, and presentation, often arranged in either three-tier (source, warehouse, and client) or two-tier models.

4) Operational Data Store (ODS): A real-time, operational storage layer that collects and consolidates data from multiple systems for operational reporting and analysis.

5) OLTP vs. Warehouse Applications: OLTP systems handle daily transactions and are optimized for speed and accuracy, while data warehouses focus on complex queries and historical data analysis.

6) Data Marts: Smaller, subject-specific data warehouses tailored for specific departments or functions within an organization.

7) Data Marts vs. Data Warehouses: Data marts are focused on specific business areas, while data warehouses cover the organization's broader data needs.

8) Data Warehouse Lifecycle: Includes planning, data modeling, ETL (Extract, Transform, Load), implementation, maintenance, and evolution based on business needs.