Week1_Data_Warehouse_Overview

What is a data warehouse?

A data warehouse is a system that aggregates data from one or more sources into a single consistent data store to support data analytics

It supports:

- Data Mining
- Data transformation during the ETL process
- Enable OLAP process
- Front ent reporting

Benefits of a data warehouse

- Centralizes data from disparate sources
- Creates a single source of truth
- Leverages all the data while enhancing speed to access
- Facilitates smarter decisions using BI

`Better data quality -> Faster business insights -> Smarter decisions -> Competitive advantages and gains`

Factors to consider to choose a data warehouse technology

Features and capabilities

- Architecture and structure
    - Vendor-specific architecture
    - Multicloud installation
    - Scalable
    - Supported data types
    - Batch and streaming data capable

Ease of implementation

- Governance
- Data migration
- Transformation capabilities

- Optimization
- User management
- Notifications and reports

Ease of use and skills

- Staff implementation skills
- Vendor or implementation partner's data warehouse implementation skills
- Technical and engineering staff front-end and administration skills for querying, reporting and visualization tools

Support

Does the vendor offer:

- Consolidated support benefits?
- Service-level agreements?
- Convenient support contact methods?
- Self-service solutions and a rich user community?

Costs

Total cost of ownership (TCO):

- Infrastructure
- Software licensing/clouyd services
- Data migration and integration
- Administration
- Support and maintainance
