ata warehouse Architectures:→

The following architecture properties are essential for a data warehouse system (Kelly, 1997):

Separation:→

Analytical and transactional processing should be kept apart as much as possible.

Scalability:→

Hardware and software architectures should be easy to upgrade as the data volume, which has to be managed and processed, and the number of user's requirements, which have to be met, progressively increase.

Extensibility:→

The architecture should be able to host new applications and technologies without redesigning the whole system.

Security:→

Monitoring accesses is essential because of the strategic data stored in data warehouses.

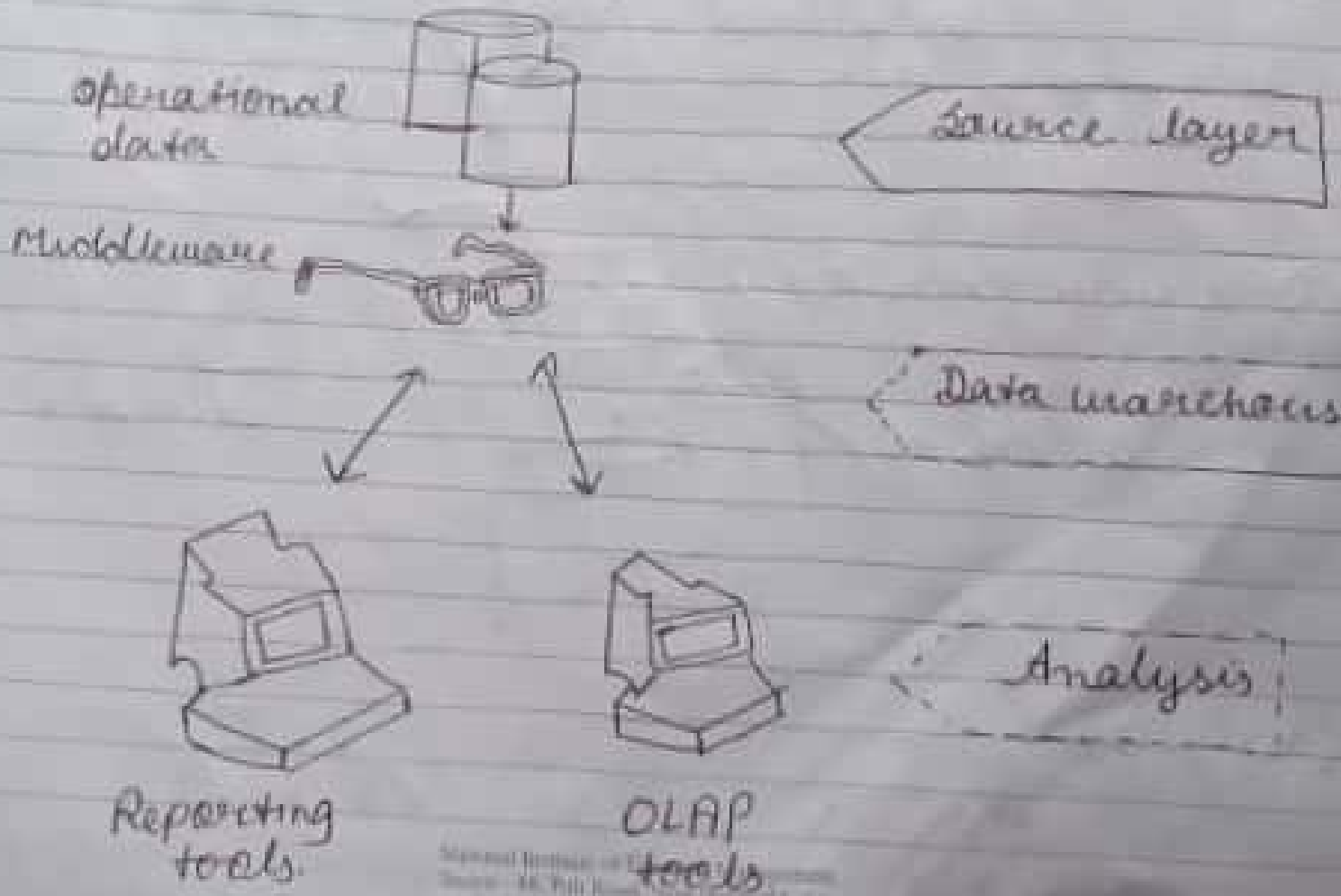
5. Administerability:-

Data warehouse management should not be overly difficult.

Type of Data Warehouse Architectures.

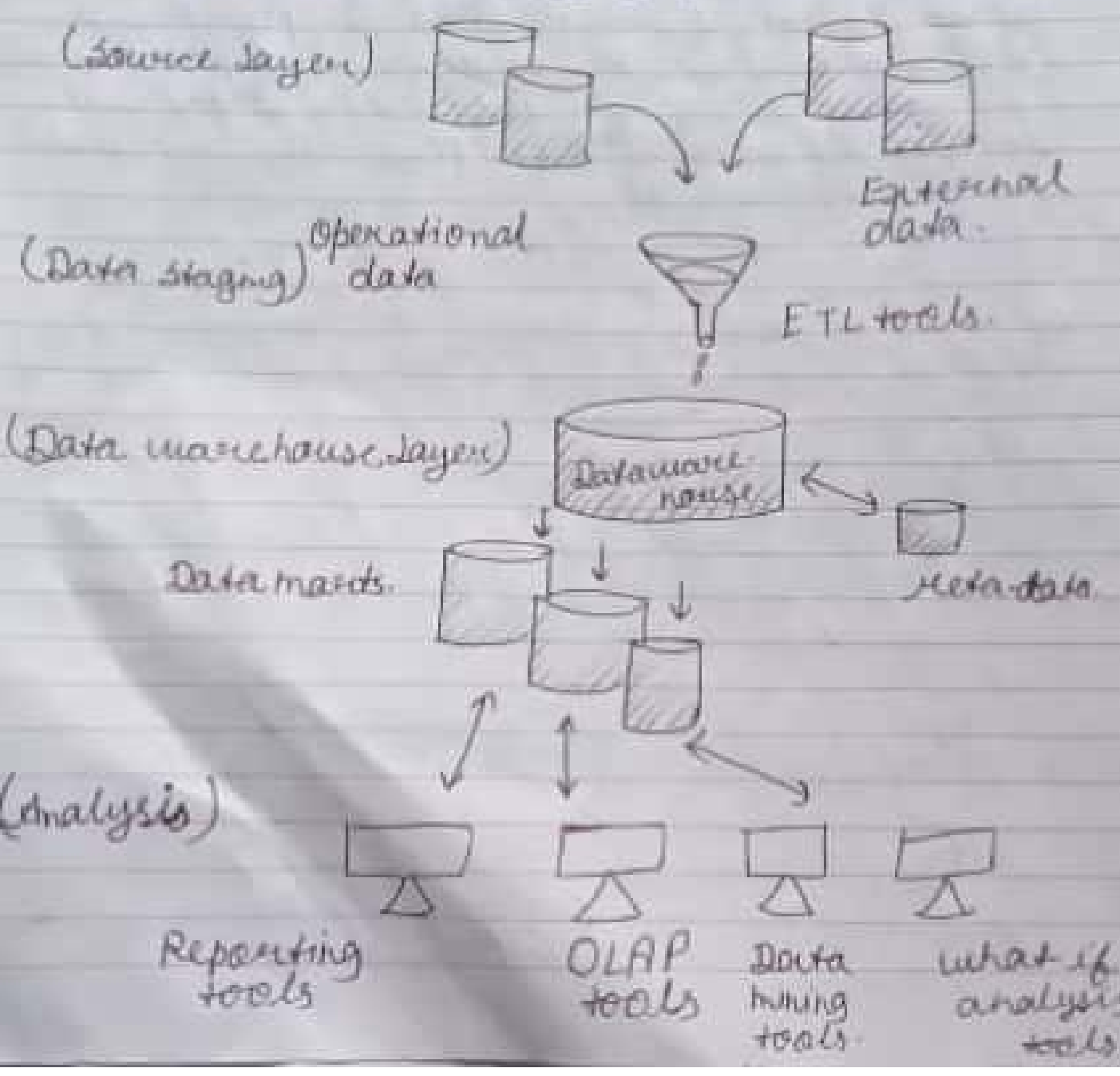
1. Single Layer Architecture:-

Single layer architecture is not frequently used in practice. Its goal is to minimize the amount of data stored to reach this goal. It removes data redundancies. the only layer physically available is the source layer.



Two layer architecture :→

The requirement for separation plays a fundamental role in defining the two layer architecture for a data warehouse system. Although it is typically called two layer architecture to highlight a separation b/w physically available sources and data warehouses.

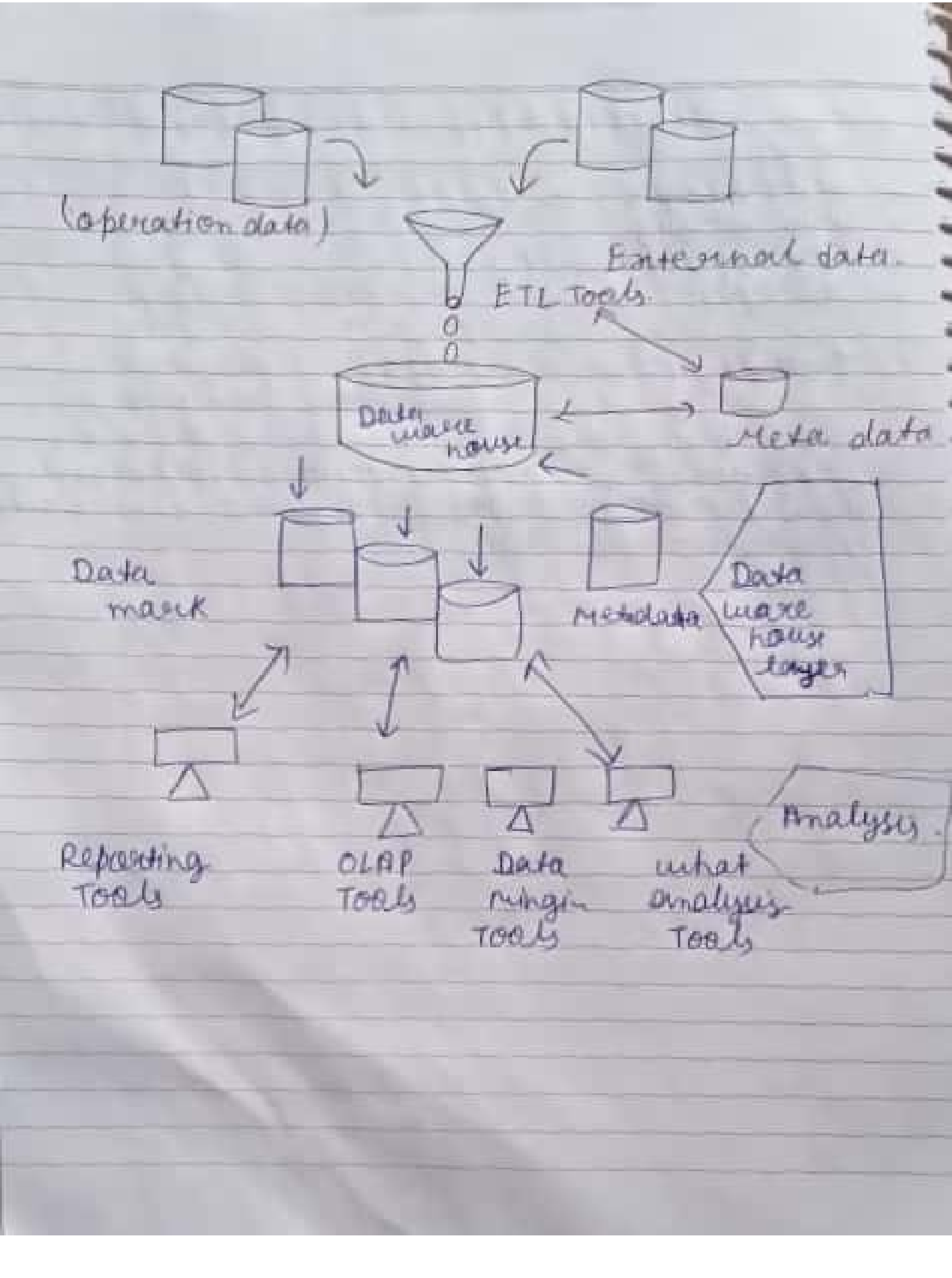


it is fact consists of four subsequent data flo
stages.

1. Source layer
2. Data staging
3. Data warehouse layer
4. Analysis

- Three layer architecture :→

The three layer architecture consists of the source layer the reconciled layer and the data warehouse lay The reconciled layer sits btw the source dat and data warehouse.



ETL Process.

Extraction, transformation, loading.

Extraction
(data brought up from ex. source)

Transforming
(fit the data as std)

Loading
(Send data to DW)

Extraction :-

Involves connecting to source system, and both selecting and collecting necessary data needed for analytical processing.

Transformation :-

Series of steps are performed on extracted data to convert into standard format.

Loading :- to imports transformed data into a large database or data wa

Data warehouse :-

A data warehousing is a ment system (RDBMS) designed specifically to meet the needs of transcation processing systems.
It can be loosely defined as any centralized data repository which can be queried for business befits.