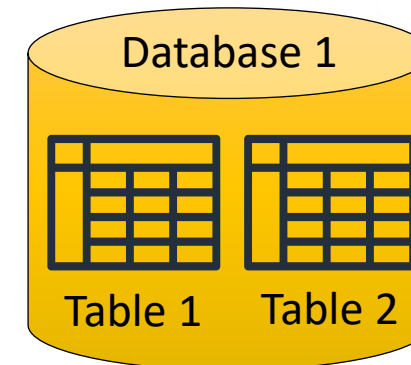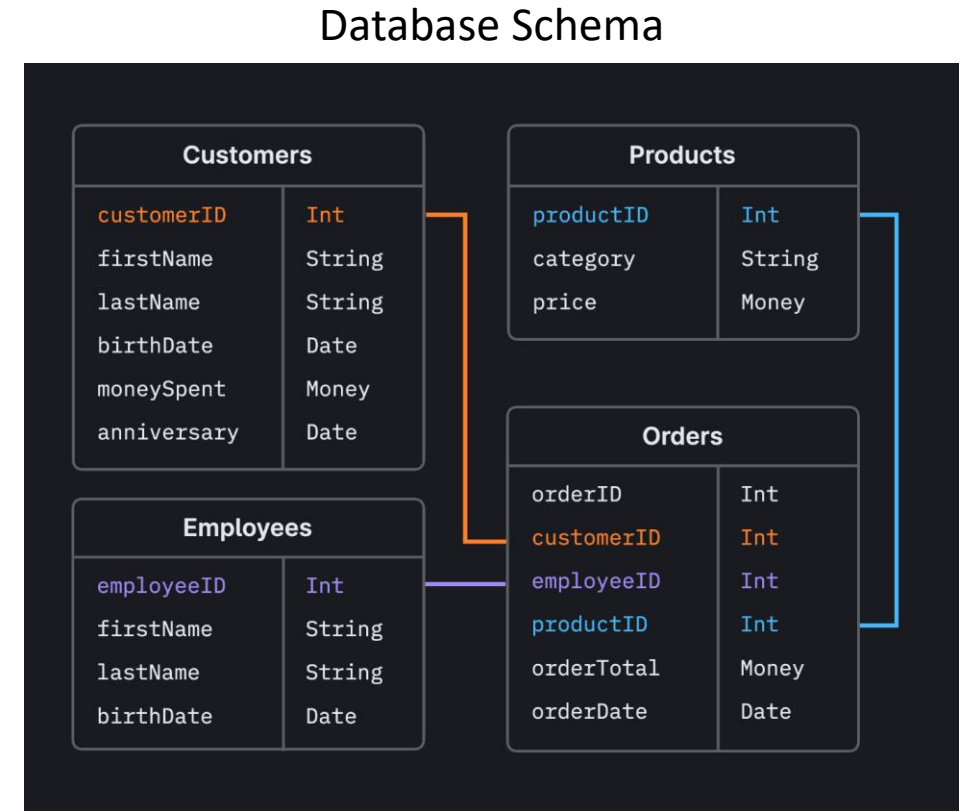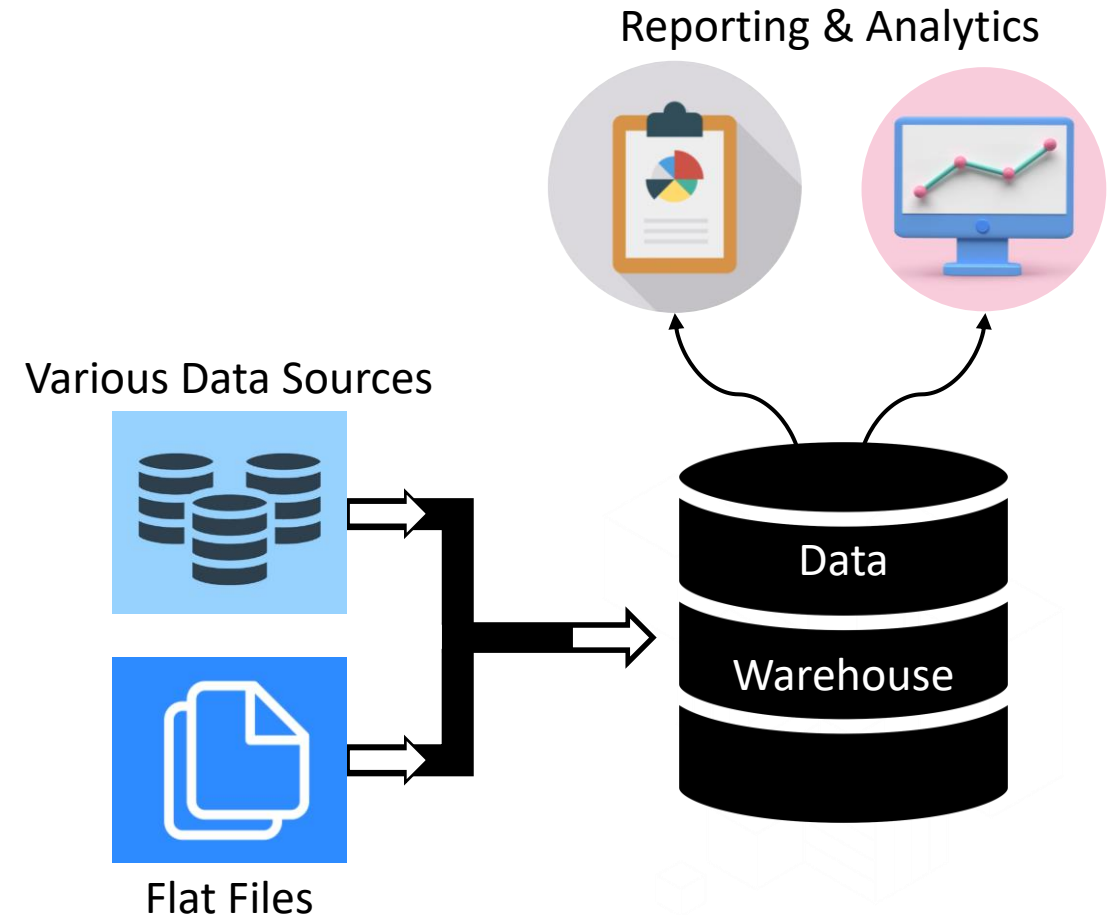Basic Terminologies

Database Schema

- Logical Representation of the Database

- It defines how the data is organized and how the relations among them are associated.

- It formulates all the constraints that are to be applied on the data.

- This process of database schema design is also known as data modeling.
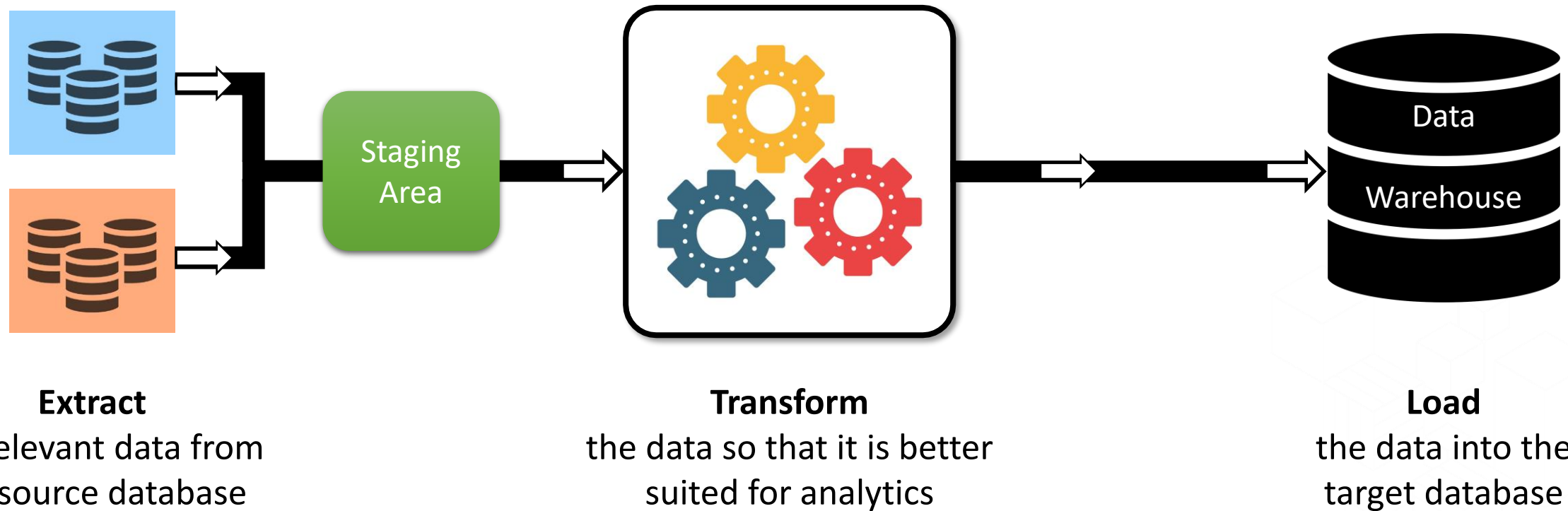

Database Schema

Datawarehouse

- A data warehouse is a central repository of information that can be analyzed to make more informed decisions.

- Data flows into a data warehouse from transactional systems, relational databases, and other sources, typically on a regular cadence.

- A database is designed to supply real-time information. A data warehouse is designed as an archive of historical information.

Reporting & Analytics

Various Data Sources

Flat Files

Data Warehouse

Extract, transform, and load (ETL)

- Process of combining data from multiple sources into a large, central repository

Extract
the relevant data from the source database

Transform
the data so that it is better suited for analytics

Load
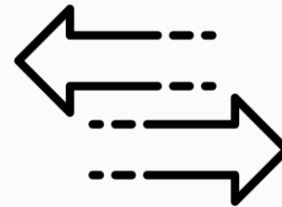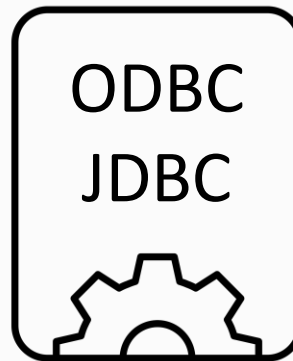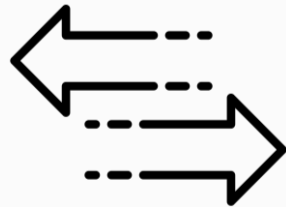the data into the target database

ODBC and JDBC

- Open Database Connectivity (ODBC) and JDBC (Java Database Connectivity), both are the API (Application Programming Interface) that help the applications on the client side to access the database on the server side.

- ODBC is created by Microsoft and JDBC created by Sun Microsystems.

- These APIs provide communications between an application residing on a client machine and a data source residing on the same client machine or on another server computer.

Database

ODBC
JDBC

Application