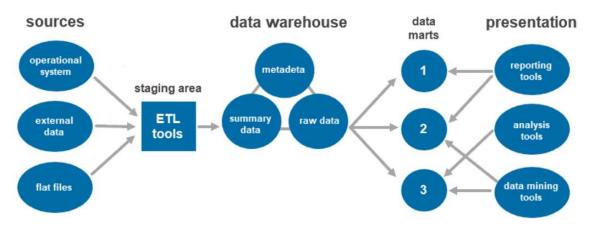
Data Warehouse Architecture



- 1. **The bottom tier** is the database of the warehouse, where the cleansed and transformed data is loaded.
- 2. **The middle tier** is the application layer giving an abstracted view of the database. It arranges the data to make it more suitable for analysis. This is done with an OLAP server, implemented using the ROLAP or MOLAP model.
- 3. **The top-tier** is where the user accesses and interacts with the data. It represents the front-end client layer. You can use reporting tools, query, analysis or data mining tools.

ETL Tools

ETL stands for **Extract**, **Transform**, and **Load**. The staging layer uses **ETL tools** to extract the needed data from various formats and checks the quality before loading it into the data warehouse.

Data mart

A <u>data mart</u> is a simple form of data warehouse focused on a single subject or line of business. With a data mart, teams can access data and gain insights faster, because they don't have to spend time searching within a more complex data warehouse or manually aggregating data from different sources.