

Database.

1. Used for Online Transactional Processing (OLTP) but can be used for other purposes such as Data warehousing. This records the data from the user for history.
2. The tables and joins are complex since they are normalized (for RDBMS). This is done to reduce redundant data and to save storage space.
3. Entity-Relational modeling techniques are used for RDBMS database design.
4. Optimized for write operation.
5. Performance is low for analysis queries.

Data Warehouse.

1. Used for Online Analytical Processing (OLAP). This reads the historical data for the users for business decision.
2. The tables and joins are simple since they are denormalized. This is done to reduce the response time for analytical queries.
3. Data Modeling techniques are used for the Data Warehouse design.
4. Optimized for read operation.
5. High performance for analytical queries.

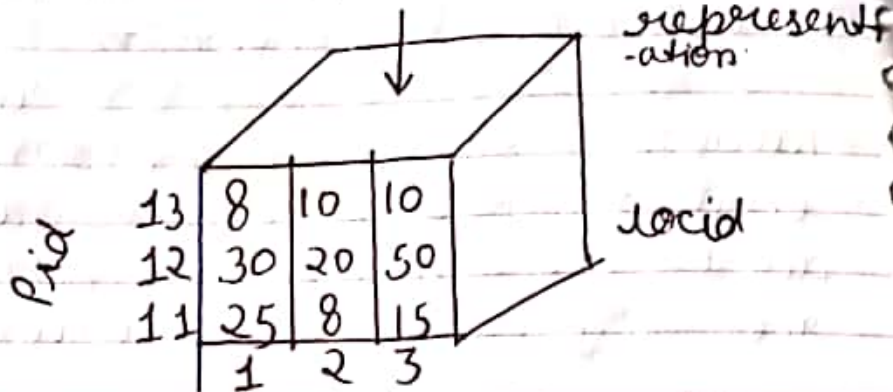
Multi Dimensional Data Model:→

During the 1990s a new type of data model, the multidimensional data model, emerged that has taken over from the relational model when the objective is to analyze data, rather than to perform on-line transactions. Multidimensional data models are designed expressly to support data analyses. Data warehouses and OLAP tools are based on a multidimensional data model. This model views data in the form of a data cube. A data cube allows data to be modeled and viewed in multiple dimensions. It is defined by dimensions and facts. Dimensions are the perspectives or entities with respect to which an organization wants to keep records.

Pid	Timeid	Locid	Sales
11	1	1	25
11	2	1	8
11	3	1	15
12	1	1	30
12	2	1	20
12	3	1	50
13	1	1	8
13	2	1	10
13	3	1	10
11	1	2	35

Tabular representation.

Multidimensional



Goals of Multidimensional Data Models: →

The goal of multidimensional data models are to support analysis in a simple and faster way by executives, managers and business professional. These people are not interested in the overall architecture. They are interested in the analysis of data.