

What Is a Data Model?

- **Definition:**
A data model organizes data elements and defines how they relate to one another.
 - **Visual Representation:**
Can be shown as tables or schemas (e.g., snowflake schema) to illustrate structure and relationships.
 - **Every data source has a data model**, even if it's not explicitly defined.
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Simple vs. Complex Models

- **Simple model:**
A basic table with rows and columns.
 - **Complex model:**
Schemas like snowflake define relationships between multiple tables.
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Role of the Data Analyst

- **Create and structure data models**
To organize datasets and define attributes for analysis.
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Understanding Data Attributes

- **Dimensions and Measures**
These are key attributes used to explore and analyze data.
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Dimensions

- **Definition:**
Unique attributes that describe data (e.g., title, genre, date published).
- **Function:**
Group and categorize data to answer descriptive questions.
- **Example:**
Use the "genre" dimension to find which genres are in stock.

- **Combining dimensions:**

Ask more complex questions like: "Which genres are available and which books are in stock?"

+ Measures

- **Definition:**

Aggregations of dimensions (e.g., count, sum, average).

- **Function:**

Used for mathematical operations to quantify data.

- **Example:**

Count the number of books by counting rows or values in a unique ID column.



Why Dimensions & Measures Matter

- **Essential for data visualization**

They help structure insights and understand relationships in data.

- **Enable meaningful questions and analysis**

Dimensions describe; measures quantify.



Final Takeaway

- **Keep exploring dimensions and measures**

They unlock the full potential of your datasets and improve your visualizations.