

## WHAT IS THE ENTITY RELATIONSHIP DIAGRAM?

### ER diagram

- An Entity Relationship Diagram is a diagram that represents relationships among entities in a database. It is commonly known as an ER Diagram. An ER Diagram in DBMS plays a crucial role in designing the database.

## What are attributes in ER Model? Explain Multivalued and Derived attribute?

### Attributes in ER Model

Attributes are the properties or characteristics of an entity in an Entity-Relationship (ER) model. They describe the data that will be stored for each instance of an entity.

### Multi-valued and Derived Attributes

- **Multi-valued Attributes:** These are often represented as separate entities in an ER model to avoid data redundancy. For example, a "Courses Enrolled" attribute for a "Student" entity could be represented as a separate entity "Enrollment" with a relationship to both "Student" and "Course".
- **Derived Attributes:** These are usually not stored in the database, but rather calculated when needed. This can improve database performance and reduce storage requirements.