ERD vs. EERD

Enhanced entity-relationship (EER) diagrams are basically a more expansive version of ER diagrams. EER models are helpful tools for designing databases with high-level models. With their enhanced features, you can plan databases more thoroughly by delving into the properties and constraints with greater precision.

An EER diagram provides you with all the elements of an ER diagram while adding:

Attribute or relationship inheritances

Category or union types

Specialization and generalization

Subclasses and superclasses

Overall, an EER diagram builds off of an ER diagram by including elements that allow for aggregation, generalization, and specialization.

Generalization and specialization act as opposites of one another. Generalization combines lower-level entities into one of a higher level. Meanwhile, specialization divides high-level entities into lower levels. With aggregation, two entities are treated as a single one.

By using the additional components, you can quickly sort and group the relationships within the system for efficient placement.

An entity-relationship (ER) diagram, also called an entity-relationship model, is aptly named: it shows the relationships between entities. ER diagrams are most commonly used to organize data within databases or information systems.

There are two kinds of ER diagrams: conceptual and physical. Conceptual diagram models can provide the foundation for logical data models or show commonality relationships between ER models as a basis for data-model integration.

A conceptual ER diagram uses six standard symbols.

Entities are objects or concepts that represent important data. Also known as strong entities or parent entities, these entities will often have weak entities that depend on them.

Attributes are characteristics of an entity (i.e., many-to-many or one-to-one).

Relationships are associations between entities.

Weak entities depend on another entity.

Multivalued attributes are attributes that can have more than one value.

Weak relationships are the connections between a weak entity and its parent.