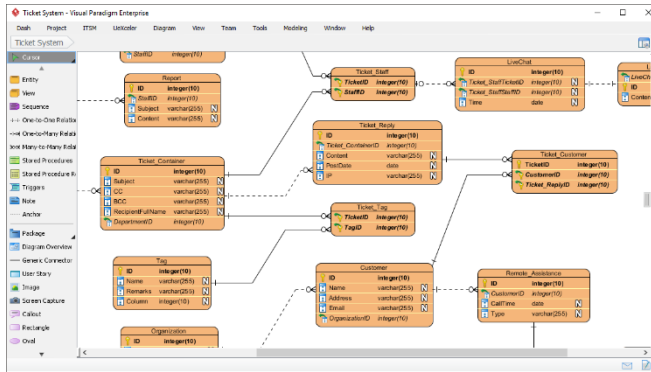


Entity Relationship Diagram

Entity Relationship Diagram (ERD), a **database design tool** that provides graphical representation of database tables, their columns and inter-relationships. ERD is the most popular database design tool. A well-developed ERD can provide sufficient information for database administrator to follow when developing and maintaining database.



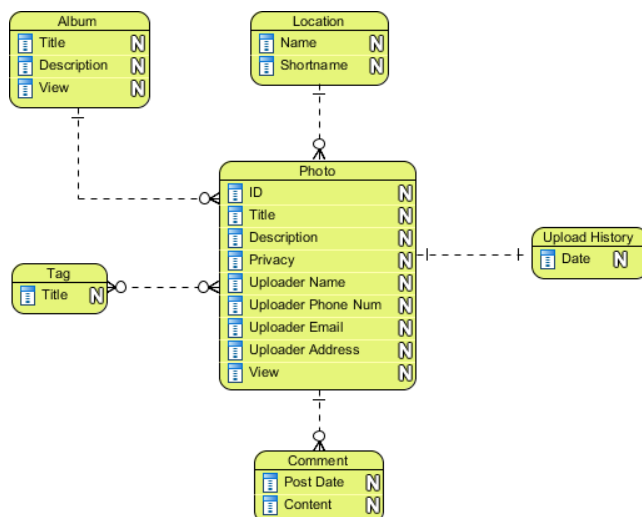
Conceptual, logical and Physical data model

Conceptual, logical and physical model or [ERD](#) are three different ways of modeling data in a domain. While they all contain entities and relationships, they differ in the purposes they are created for and audiences they are meant to target. A general understanding to the three models is that, business analyst uses conceptual and logical model for modeling the data required and produced by system from a business angle, while database designer refines the early design to produce the physical model for presenting physical database structure ready for database construction.

In [Visual Paradigm](#), you can draw and keep track of the traceability between conceptual, logical and physical model.

Conceptual Model

Conceptual ERD models information gathered from business requirements. Entities and relationships modeled in such ERD are defined around the business's need. The need of satisfying the database design is not considered yet. Conceptual ERD is the simplest model among all.



Note: Conceptual ERD supports the use of generalization in modeling the ‘a kind of’ relationship between two entities, for instance, Triangle, is a kind of Shape. The usage is like generalization in UML. Notice that only conceptual ERD supports generalization.

The same technique can be applied in creating a physical ERD from logical ERD.

Abbreviation set

When you synchronize from logical to physical ERD, you will be prompted to apply abbreviation to create/update the physical names of schema, entities and columns in physical ERD. As you may need different names for physical entities to avoid the use of reserved words or to follow certain database management guideline, abbreviation is a mechanism that helps you produce legit name when creating / updating objects in physical ERD during the synchronization from logical to physical ERD. For instance, you can define an abbreviation “PUR_ORDER” for entity name “Order” to have physical entity “PUR_ORDER” produced from logical entity “Order” upon synchronization.

How to synchronize changes between model?

When changes are made to an ERD, you can synchronize the changes to the subsequent form. To do this, right click on the background of the source ERD and select **Utilities > Synchronize to Logical/Physical ERD...** from the popup menu.

How to navigate between models?

To open an entity under another model, move your mouse pointer over that entity and click on the tiny **Model Transitor** icon at bottom right. Select **Transit From/To > <model>** to instantly jump to the previous/next form of that entity.

