

ER Design Methodology

1. Select one primary entity from the database requirements description and show the attributes to be recorded for that entity.
 - label keys if appropriate and show some sample data
 - use structured English to describe the attributes of the primary entity (atomic, composite, keys)
2. Use structured English for entities, attributes, and keys, to describe the database that has been elicited.
3. Examine attributes in the primary entity (possibly with user assistance) to find out if information about on the attributes is to be recorded
 - a. If information about an attribute is needed, then make the attribute an entity.
 - b. Define the relationship back to the original entity.
4. If another entity is appropriate, draw the second entity with its attributes. Repeat step 2 to see if this entity should be further split into more entities.
5. Connect entities with relationships if relationships exist.
6. State the exact nature of the relationships in structured English from all sides; for example if a relationship is A:B::1:M, then there is a relationship from A(1) to B(M) and from B(M) back to A(1).
7. Present the “as designed” database to the user complete with the English for entities, attributes, keys, and relationships. Refine diagram as necessary.
8. Show sample data.