



ENSF 300 - Final Project

Conceptual Database Design

Our EER diagram design represents information about the art objects of a museum. Our design consists of nine entity types, ART_OBJECT, ARTIST, EXHIBITION, PERMANENT_COLLECTION, BORROWED, SCULPTURE, OTHER, PAINTING, and COLLECTION. Each of these entities consists of various attributes and some are a part of a relationship type. An assumption made about the relationship between ARTIST and ART_OBJECT was that there is one artist for various art objects, therefore, there is a 1:N relationship. Another assumption made in the diagram was that statues and sculptures can be represented as the same thing and thus only one, sculpture, was kept as an entity. We decided to have two disjoint constraints one for art objects that are borrowed or a part of the permanent collection, and one for the type of art object that the art is. To summarize the diagram, all entities are in some way related to the ART_OBJECT entity. The entities EXHIBITION and ARTIST are each connected to ART_OBJECT through 1:N relations. All other entities are related to ART_OBJECT through disjoint constraints. The two groups of disjoint constraints were decided because each entry in the ART_OBJECT will only be related to one of the entities in each disjoint constraint. For example, an object can either be a painting, sculpture, or fall in the other category, it can only be one of them at a time. Additionally, an object of a certain type (painting, sculpture, other) can be either borrowed or permanent, but not both simultaneously, and thus, disjoint constraints seemed most appropriate for such a relationship.