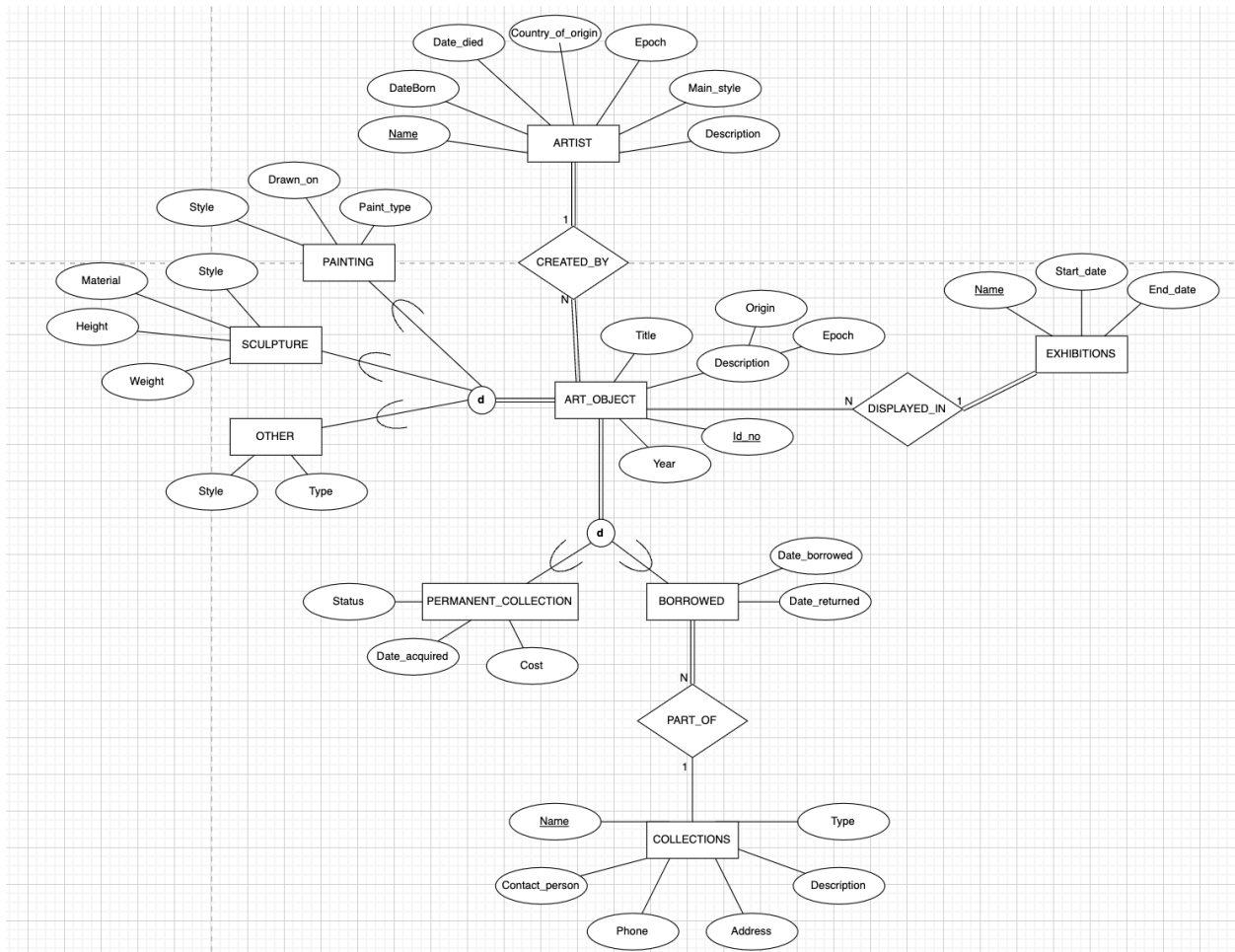


ENSF 300
Final Project EERD
Github Group Name: Top Frags
D2L Group #17

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Art Museum EERD



Design Explanation

The narrative provided in the project outline contains multiple entities such as ARTIST, EXHIBITIONS, and ART_OBJECT. These are entities because they contain attributes. Although artist, exhibitions, and collections seemed to be attributes of certain entities, we decided to make them entities, since they had their own attributes, and connect them through a relationship afterwards. For instance, an ART_OBJECT is CREATED_BY an ARTIST. The relationship between ARTIST and ART_OBJECT has total participation on both ends because an ART_OBJECT must have been created by an artist and an artist would only be recorded in the database if they created some form of art object. This is also a N:1 relationship since one artist could have created many different art objects.

We made ART_OBJECT a superclass since it has an "IS_A" relationship with the different types of art objects. These subclasses include PAINTING, SCULPTURE, and OTHER. ART_OBJECT also displays total participation since it must be one of the types shown (disjoint and total specialization) and each of these entities inherit the same attributes from the superclass with only a few unique attributes for each of them. Therefore, the art object must either be a sculpture/statue, a painting, or something else such as a photo. The ART_OBJECT cannot be partial participation in this superclass/subclass relationship because it has to be one of the types.

Another superclass/subclass relationship was created with ART_OBJECT and PERMANENT_COLLECTION as well as BORROWED. This one is also total participation since the ART_OBJECT must either be part of the museum's permanent collection or borrowed from some other collection (disjoint and total specialization), which leads us to the next relationship design.

Since COLLECTIONS has its own attributes, it is an entity so we connected it to the BORROWED entity via a "PART_OF" relationship stating a borrowed art object is PART OF a collection. BORROWED totally participates since an art object must be borrowed from some collection, but not all collections need to have objects borrowed from them (partial participation). This is also a N:1 relationship since there could be many borrowed objects from one collection.

Just as COLLECTION has its own attributes, so does EXHIBITIONS; therefore, the same process was done. EXHIBITIONS was created as an entity and connected to ART_OBJECT via a "DISPLAYED_IN" relationship since art objects are displayed in an exhibition. EXHIBITIONS shows total participation in the relationship since it requires art objects, however ART_OBJECT shows partial participation because not all art objects are displayed in exhibitions. This is also a N:1 relationship since there are many art objects featured in each exhibition.