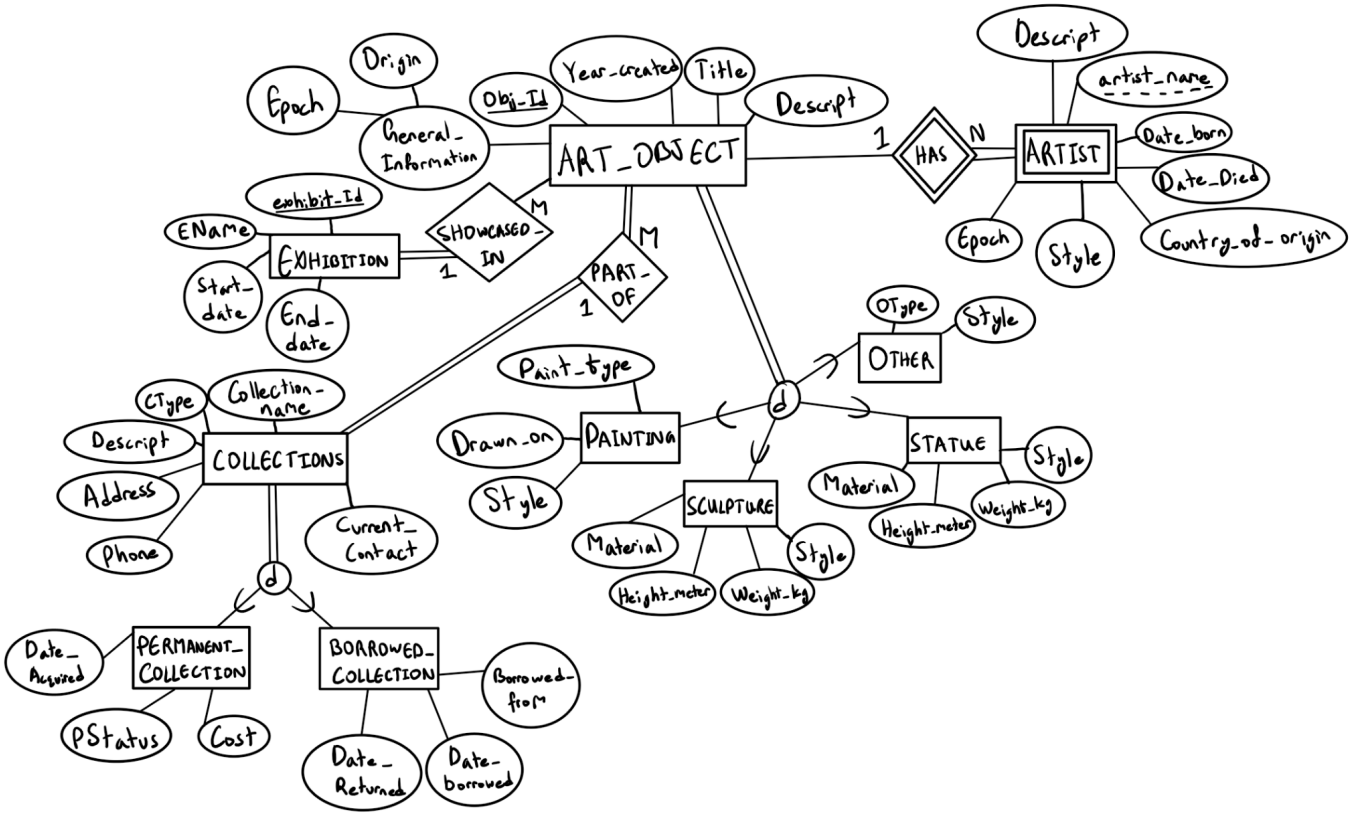
Enhanced - Entity Relationship Diagram



There were many assumptions that went into creating this diagram. One of these is seen in the relationship between ART_OBJECT and ARTIST. The ARTIST table was assumed to be a weak entity as in the narrative there was no specific attribute given to ARTIST that would make it unique. Thus, there is a partial key being “artist_name” and ARTIST is a weak entity of ART_OBJECT. Also, the cardinality from ART_OBJECT to HAS was assumed to be partial as in the narrative, it was mentioned that the artist may not be known and so we assumed that if the artist is not known then he basically does not exist. We then included a total participation from “HAS” to “ARTIST” as we assumed that if there is an artist then to be an artist, he has to have made an art object. For the cardinality ratio, we assumed that one art_object can have multiple artists that have worked on it, which is why it is “1” to “N.” Between EXHIBITION and ART_OBJECT, we assumed that not every art_object will be a part of the exhibition, which is why there is partial participation from ART_OBJECT and SHOWCASED_IN. But there is total participation from EXHIBITION to SHOWCASED_IN as if an exhibition has been made, then it will be displayed and set up. For the cardinality ratios, it is ‘1’ for EXHIBITION to ‘M’ for ART_OBJECT so we are assuming that one exhibition can have multiple art objects but one art object cannot be in multiple exhibitions. Another assumption we had was total participation from ART_OBJECT to PART_OF as we assumed that every art object needs to be a part of a collection. Similarly, we had total participation between COLLECTIONS and PART_OF as we assumed that every collection has at least one art object. For that we assumed the cardinality to be ‘1’ to ‘M’ because we assumed that a collection can have many art objects but one art object cannot be a part of many collections.