Brendan Rooney

CSC 451 Assignment 3

Entities:

SELLER: A SELLER is a person who registers with our online auction site with the intention to sell one to many ITEMS. Each SELLER can be identified by their unique ID, which is their key attribute. For each SELLER we also record their Name, and the City and State they are from. In addition to this information, some, but not all, SELLERS also have their Bank\_Accounts recorded in the database for direct deposit purposes.

BUYER: A BUYER is a person who registers with our online auction site with the intention to bid on and purchase ITEMS. Each BUYER is given a unique ID which acts as their key attribute. Each BUYER also enters their Name and Ship\_Address, which is simply their shipping address, into our database. BUYERS can also give one or more Credit\_Cards to keep in the database, although some give zero information regarding their Credit\_Cards, to simplify the payment process.

ITEM: An ITEM is a tangible thing that a SELLER puts up for sale on our auction website. For each ITEM we record a single unique Number that acts as its key attribute. Each ITEM is also listed with a single record of it’s Min\_Bid, which is the lowest price a SELLER is willing to sell an ITEM for. ITEMS also contain a single Description explaining about that ITEM or what it does, as well each ITEM’S single Closing\_Date. The Closing\_Date is the last day an ITEM will be listed for sale on our online auction web page, whether it is sold or not.

Relationships:

offer: A SELLER can offer many ITEMS for sale on our auction page. However a newly registered SELLER may offer zero ITEMS for sale. Each ITEM must be offered for sale by one and only one SELLER.

bid: A BUYER can bid on a single ITEM at most at one time. However, a BUYER does not have to bid on any ITEM, allowing them to bid zero times. An ITEM can be bid on by zero BUYERS or it can be bid on by many BUYERS. For each ITEM bid on by a BUYER, the database records two attributes, a single Price that is bid, and the exact Date that the BUYER bids on an ITEM.

recommend: A single SELLER may or may not recommend, to one or many BUYERS about one or many of their ITEMS they are offering to sell. This recommendation can be made to one or many BUYERS while they are looking at one or many Other\_Items, an attribute recorded with this relationship. Other\_Items are noted as being similar to one or many of the SELLER’S actual ITEMS.

gives\_feedback: A BUYER optionally gives\_feedback of zero to one SELLER. To clarify, allthough a BUYER is allowed to give\_feedback of many SELLERS, they are only allowed to give\_feedback of an instance of SELLER once. When a BUYER gives\_feedback, a single numerical Rating (1-4) is noted, along with a single review of the SELLER. In the future our auction website plans to allow SELLERS the same opportunity to give\_feedback towards BUYERS. At most once per BUYER, but the ability to give\_feedback towards multiple BUYERS.

Additional Assumptions:

The gives\_feedback relationship could have been a weak entity, but to allow scalability for the opportunity for SELLERS to review BUYERS in the future, and also to not be redunudant and list a SELLER as an attribute, the gives\_feedback relationship was decided as the best course of action.

Each ITEM Number is unique to a single instance of an ITEM.

A BUYER can register with our online auction site and not place any bids on ITEMS.

A potential SELLER can sign up but offer zero ITEMS and still be in our database.

A SELLER can recommend one or many of their ITEMS being offered.

If a SELLER recommends an ITEM, at least one BUYER will see the recommendation.

A SELLER does not have to recommend any of their ITEMS.