# 2. Analysis

## 2.1. Rating

Macintosh HD:Users:Eros:Downloads:rating.pngA user might want to know what rating a seller might have. This can be modeled by the relationship, *User sells Items*, as shown in Figure 1. The application quality entity Rating is created with primary key ratingid, a scale based non-key attribute “value” and a textual non-key attribute “explanation.”

Figure 1

Each occurrence of the relationship *User sells Items* has a rating value. Since the *User sells Items* is a many-to-many relationship, the primary key of the gerund is the concatenation of the keys of *User* and *Items*. Then a new relationship ‘*User sells Items’ has ratings* has been created. The “value” is a scale attribute that can be selected from 1 star to 5 stars. The “explanation” is a textual attribute that allows a user to explain why one gives such scaled-rating or any additional comments. A seller will also have an average rating showing on his/her profile. The average rating calculates the mean of each rating value then rounds to the nearest star scale.

## 2.2. Searching

Macintosh HD:Users:Eros:Downloads:search.pngA user might want to search for a series of specific items. This can be modeled by two kinds of relationships, *User search Items*, and *User choose Categories then search Items*, as shown in Figure 2.

Figure 2

If a user chooses to input keywords, the database will look for items that contains these keywords. A user can also choose certain category first then input keywords to narrow down the results. Attributes in Items like itemID, description, etc. will be searchable.