Exercise 1.2

Tables  
Keys  
Attributes   
Relationship  
  
Although you always wanted to be an artist, you ended up being an expert on databases because you love to cook data and you somehow confused ‘data base’ with ‘data baste.’ Your old love is still there, however, so you set up a database company, ArtBase that builds a product for art galleries. The core of this product is a database with a schema that captures all the information that galleries need to maintain.

Galleries keep information about artists, their names (which are unique), birthplaces, age, and style of art. For each piece of artwork, the artist, the year it was made, its unique title, its type of art (e.g., painting, lithograph, sculpture, photograph), and its price must be stored. Pieces of artwork are also classified into groups of various kinds, for example, portraits, still life’s, works by Picasso, or works of the 19th century; a given piece may belong to more than one group. Each group is identified by a name (like those above) that describes the group. Finally, galleries keep information about customers.

For each customer, galleries keep their unique name, address, total amount of dollars they have spent in the gallery (very important!), and the artists and groups of art that each customer tends to like.

1. From the business roles, list all possible entities and the Attributes.
2. List all possible Entity relationships and their cardinalities.
3. Draw the ER diagram for the database (Entities, Attributes), with their primary and foreign keys.
4. Draw ER Mapping of all entities and link the foreign keys to their appropriate primary keys.