CSCD 327 Lab #7 (10 points)
Due: August 11, 2014, 1:45pm

Here is an online tool you may want to use to develop your ERDs:
https://www.draw.io/#

1. (4 points) You are going to set up a database company, ArtBase, that builds a product for art galleries. The core of this product is a database 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, 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 just given) that describes the group. Finally, galleries keep information about customers. For each customer, galleries keep that person's unique name, address, total amount of dollars spent in the gallery, and the artists and groups of art that the customer tends to like. Draw the ER diagram for the database.
2. (6 points) A company database needs to store information about employees (identified by *ssn*, with *salary* and *phone* as attributes), departments (identified by *dno*, with *dname* and *budget* as attributes), and children of employees (with *name* and *age* as attributes). Employees *work* in departments; each department is *managed by* an employee; a child must be identified uniquely by *name* with the parent (who is an employee; assume that only one parent works for the company) is known. We are not interested in information about a child once the parent leaves the company.
    1) Draw an ER diagram that captures this information.
    2) Write SQL DDL statements to create the corresponding relations and capture as many of the constraints as possible. If you cannot capture some constraints, explain why.