CS 340 HW 1

1. Relationships – For this question you are to ignore attributes and provide ER diagrams that represent the relationship between entities correctly. The entities will be Foo, Bar and Baz. (there should be one diagram for part a, and one diagram for part b)

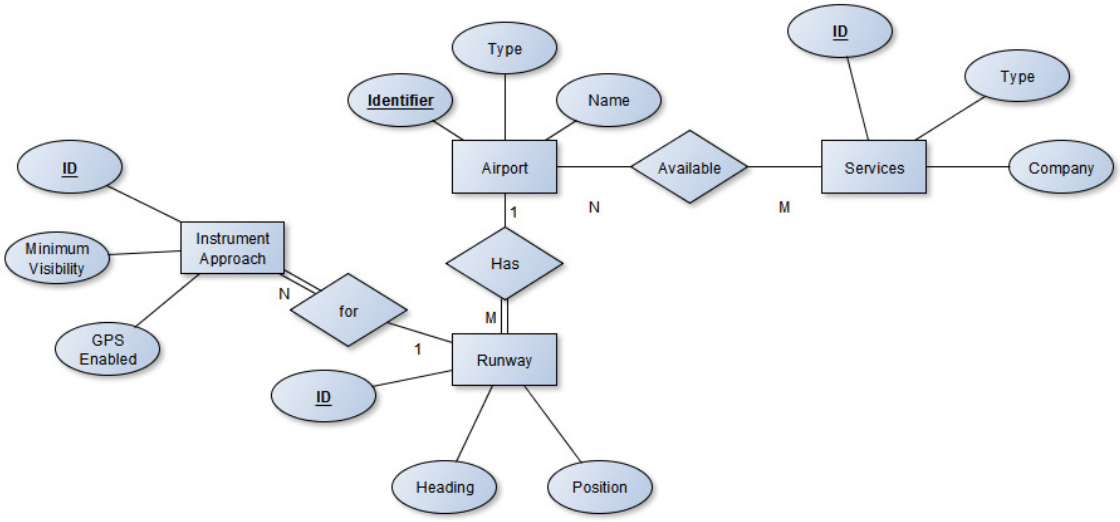
    a. A Foo is related to at least one Bar.
    A Bar is related to at most one Foo.

    b. A Foo is related to no more than one Bar.
    A Bar is related to zero or more Foos
    A Baz is related to one or more Bars and at least one Foo.
    A Bar is related to at least one Baz.
    A Foo is related to exactly one Baz.

2. Provide a schema for the following data

    Convert the ER diagram located in file “HW1_Q2.pdf” into a schema.

Airport ERDiagram



3. Provide an ER diagram for the following situation.

   You run a small candy shop, and you want to implement a database that represents the following description of your business.

   You sell candies. A candy has id, name and price.

   Candies have different types. Each Candy Type has id, type and storage temperature.

   A Candy belongs to exactly one Candy Type. A Candy Type can consist of zero or more candies.

   A Candy can be on zero or more Aisles. An Aisle can have zero or more candies. Each Aisle has ID and Capacity.

   There are Customers and Purchases. Each Customer has id, first name, last name and date of birth. Each Purchase has id, date and total amount.

   A Customer makes at least one Purchase. A Purchase is made by exactly one Customer.

   A Purchase consists of one or more candies. A Candy can be in zero or more purchases. The quantity of each Candy in a Purchase should be stored (For example, in a Purchase there might be 2 candies with id=1, and 5 candies with id=2).
   A Customer can refer zero or more Customers to your candy shop. A Customer

   is referred by at most one other Customer.

   Assume IDs are unique for each entity.