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

   b. A Foo is related to exactly one Bar.
      A Bar is related to zero ore more Foos
      A Baz is related to one or more Bars and at least one Foo.
      A Bar is related to at most one Baz.
      A Foo is related to at least one Baz.

2. Provide a schema for the following data

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

3. Provide an ER diagram for the following situation.

   You are designing a database to keep track of the IT landscape in a medium sized business.

   A computer has a Serial Number, Operating System and Version. A serial number uniquely identifies a computer.

   Hardware has a Serial Number, Type and Model. A piece of hardware is uniquely defined by its serial number.

   A workstation has an ID, Position, Size and Room. The ID of a workstation uniquely identifies it.

   An employee has a SSN, First Name, and Last Name. The employee is uniquely identified by his/her SSN.

   A support ticket has an ID, a Status, and a Description. It is uniquely identified by its ID.

   A computer is related to at most one work station. A work station is related to 0 or more computers.

Hardware is associated to exactly one computer. A computer is related to at least one piece of hardware.

An employee is related to one or more work stations and a work station is related to exactly one employee.

A support ticket is assigned to one or more employees. An employee can be related to 0 or more tickets. The date the ticket was assigned to each employee is tracked.

An employee can supervise 0 or more employees. Every employee has one supervisor.