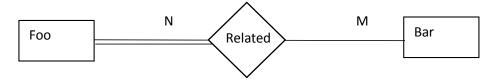
## Homework Assignment 1

## 1a. A Foo is related to 1 or more Bars

A Bar is related to 0 or more Foos



Logic: Both 1 or more and 0 or more are the minimum, and we're concerned with maximum cardinality, which is many. Additionally, if Foo is related to 1 or more Bars, then every Bar has at least one Foo, indicating total participation.

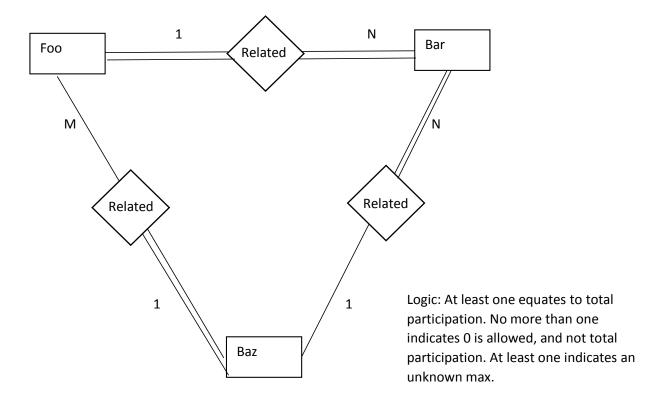
## 1b. A Foo is related to at least one Bar

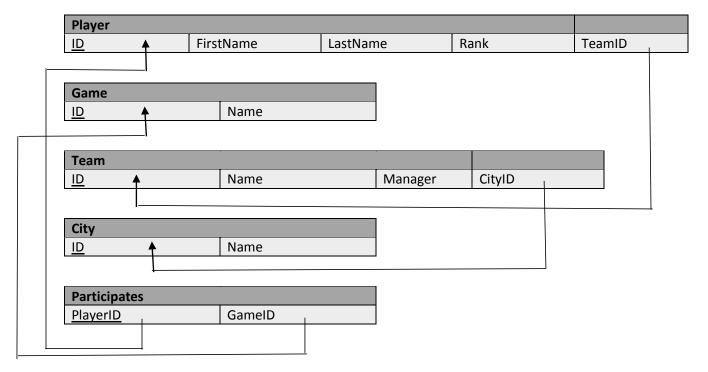
A Bar is related to exactly one Foo

A Baz is related to zero or more Bars and at least one Foo

A Bar is related to exactly one Baz

A Foo is related to no more than one Baz





3. Create an ER Diagram based on the following (reorganized for my sake):

Candies has id, name and price

Candies have different types

Candy type has id, type, and storage temperatue

Each candy belongs to exactly one candy type. Each candy type consists of zero or more candies.

Aisle has an id and a capacity

A candy can be on zero or more aisles

An isle can have zero or more candies.

Purchase has an id, date, and total amount

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

Customer has id, first name, last name, and date of birth

A customer makes at least one purchase

A purchase is made by exactly one customer

A customer can refer many customers to your candy shop

A customer is referred by at least one other customer

## **ER DIAGRAM**

