Social Network!

Background

You and your friend have decided to start a company that simulates a

social network site. Your friend will handle the website creation (they know

what they are doing, having taken our web development class). However, it is

up to you to create the classes that manages the information and to define

several methods that operate on the network.

In a website, the data is stored in a database. In our case, however, all the

information comes in a big string stored in a text file. Each pair of sentences in the text

is formatted as follows:

<username> is connected to <name1>, <name2>,...,<nameN>.

Your friend records the information in that string based on user activity on

the website and gives it to you to manage. For example:

John is connected to Bryant, Debra, Walter.

Consider the data structures that we have used in the course - Array/ArrayList or Hashtable. Pick one which will allow you to manage the data above and implement the methods below

You can assume that <username> is a unique identifier for a user. In other

words, there is only one John in the network. Furthermore, connections are not

symmetric - if John is connected with Alice, it does not mean that Alice is

connected with John.

1. Create data structure by reading the text file
2. Get Connections given a user as argument
3. Add connection give user A and user B
4. Add new user
5. Connections in common

Test Cases:

1. getConnections("Mercedes"); returns ["Walter", "Robin", "Bryant"]
2. addConnection("Mercedes", "John");

3. getConnections(“Mercedes”); returns [“Walter”, “Robin”, “Bryant”, “John”]
4. getCommonConnections(“John”, “Walter”); returns [“Bryant”]