**CSI 403 – Spring 2018 – Project #5 – FOAFs**

Goal:

* Write an HTTP service which accepts a graph of people where edges represent friendship relationships. Return the suggested edges which would create direct friend relationships between two people who currently are at most one friend away – two people who are “friends of a friend” (FOAFs).

Problem:

* Receive as input an array of friend relationships.
* Return a set of arrays each representing a new suggested friend relationship.
* Example input:

{ “inList” : [

{ “friends” : [ “Albert”, “Betty” ] },

{ “friends” : [ “Betty”, “Cathy” ] },

{ “friends” : [ “Cathy”, “Denis” ] },

{ “friends” : [ “Denis”, “Albert” ] },

{ “friends” : [ “Tony”, “Bruce” ] }

] }

Example output:

{ “outList” : [ [ “Albert”, “Cathy” ] , [ “Betty”, “Denis” ] ] }

* Do not duplicate the suggestions (in the example above, do not also suggest [ “Cathy”, “Albert” ]. If no new friend relationships can be suggested, return the empty array. { "outList" : [ ] }
* Erroneous input (e.g. malformed JSON) should be handled gracefully.

Deliverables:

Submit to the Blackboard by the due date:

* An HTTP URL to a RESTful service which must remain up and running 24/7 until grading is complete. Graders will invoke your service with a tool such as curl or Postman at a time of their choosing.
* A ZIP file containing your source code, written in any language you choose.