



Team Dojo

ProNet Acceptance Tests

#1

Read the example ProNet network from the ProNet.xml file provided, and display network on the screen in a table in alphabetical order, with the following columns:

Programmer

Bill

Etc...

Skills

Ruby, Perl, PHP

Recommends

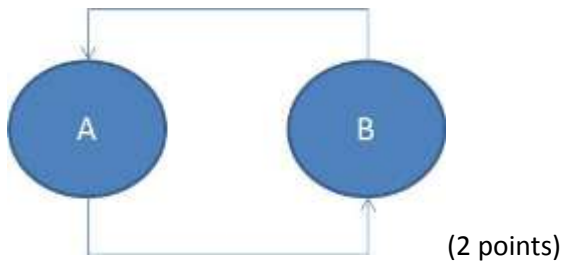
Jason, Jill, Nick, Stu

(10 points)

#2

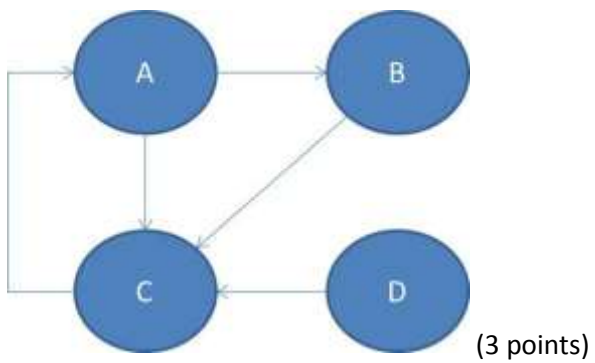
Calculate the “kudos” of all programmers in the following networks and display them on the screen, sorted in descending order of kudos:

a.



A=1, B=1

b.



A=1.49, B=0.78, C=1.59, D=0.15

c.

The programmer network described in ProNet.xml (10 points)

See slides for correct values

#3

Display on the screen in a 2-dimensional table the degree of separation between every programmer in the ProNet.xml network

(15 points)

| | Bill | Dave | Ed | Frank | Jason | Jill | Liz | Nick | Rick | Stu |
|-------|------|------|----|-------|-------|------|-----|------|------|-----|
| Bill | 0 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 |
| Dave | 2 | 0 | 3 | 3 | 1 | 1 | 2 | 2 | 4 | 3 |
| Ed | 1 | 3 | 0 | 3 | 2 | 2 | 1 | 2 | 1 | 2 |
| Frank | 2 | 3 | 3 | 0 | 3 | 2 | 3 | 1 | 4 | 1 |
| Jason | 1 | 1 | 2 | 3 | 0 | 2 | 1 | 2 | 3 | 2 |
| Jill | 1 | 1 | 2 | 2 | 2 | 0 | 2 | 1 | 3 | 2 |
| Liz | 1 | 2 | 1 | 3 | 1 | 2 | 0 | 2 | 2 | 2 |
| Nick | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 0 | 3 | 1 |
| Rick | 2 | 4 | 1 | 4 | 3 | 3 | 2 | 3 | 0 | 3 |
| Stu | 1 | 3 | 2 | 1 | 2 | 2 | 2 | 1 | 3 | 0 |

#4

Using the network described in ProNet.xml (and displaying results on the screen),

- a. Calculate the strength of this Ruby team: **Jason (locus), Bill, Frank** (4 points)

ANSWER: 0.36

- b. Calculate the strength of this C++ team: **Liz (locus), Bill, Ed, Nick** (6 points)

ANSWER: 0.14

#5

Display all possible Java teams of 3 in the ProNet.xml network on the screen, sorted strongest to weakest, including their strength calculations

(15 points)

| | | |
|-----------------|--------------|---------------------|
| Strength: 0.527 | Locus: Nick | Members: Dave Jason |
| Strength: 0.504 | Locus: Nick | Members: Jason Liz |
| Strength: 0.487 | Locus: Nick | Members: Liz Rick |
| Strength: 0.35 | Locus: Jason | Members: Liz Nick |
| Strength: 0.35 | Locus: Liz | Members: Jason Nick |
| Strength: 0.337 | Locus: Jason | Members: Nick Rick |
| Strength: 0.329 | Locus: Dave | Members: Nick Rick |
| Strength: 0.328 | Locus: Dave | Members: Liz Nick |
| Strength: 0.302 | Locus: Liz | Members: Nick Rick |
| Strength: 0.251 | Locus: Rick | Members: Liz Nick |
| Strength: 0.219 | Locus: Jason | Members: Dave Liz |
| Strength: 0.199 | Locus: Dave | Members: Jason Liz |
| Strength: 0.175 | Locus: Liz | Members: Dave Jason |
| Strength: 0.137 | Locus: Rick | Members: Dave Jason |
| Strength: 0.135 | Locus: Rick | Members: Jason Liz |