

Homework Assignment 10

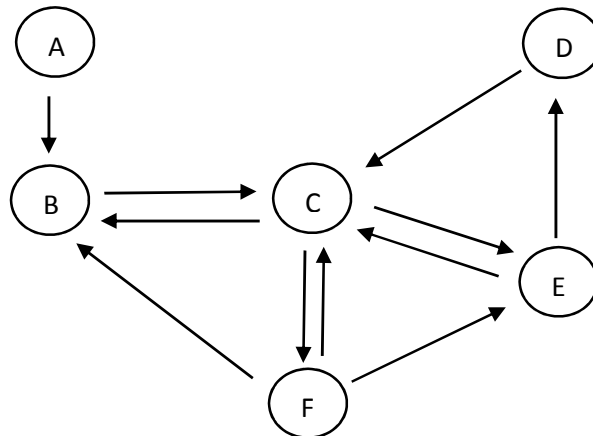
Due date: 3rd of February 2014

Please note that even though the homework assignments are optional, you're still highly encouraged to answer them, as they will help you prepare for your final exam. You can work in a group of two or alone. Solutions can be dropped off at the institute's homework mailbox located on the 2nd floor, next to room 238. In that case, please make sure both your name and matriculation number is noted down. If your answers span more than one sheet, kindly staple them together. Another alternative is to send your homework via email to: elmaarry@ifis.cs.tu-bs.de

LECTURE 12: LINK ANALYSIS

EXERCISE 12.1

Why is the prestige recursive in its nature? And how is that reflected in Seeley's model?



EXERCISE 12.2

Given the above web graph.

- i. How would PageRank rank the nodes?
- ii. What's the underlying idea that yields such a ranking?

EXERCISE 12.3

Briefly explain the random surfer model? Why is it applicable and mathematically feasible to apply on a big scale?

EXERCISE 12.4

Topic-sensitive page rank mitigates a drawback of PageRank. What's the drawback and how is it addressed?

Note: This will be the last assignment for this lecture. If you have any questions so far, feel free to drop by at my office until the 4th of February. After that, I will be away on a fellowship, and will no longer be in Germany until the end of March. You can still however send me any questions by email, if they come up while you're preparing for the exams.

Best of Luck 😊