X-Sender: hector@db.stanford.edu
Date: Fri, 15 Feb 2002 16:44:16 -0800
To: Diane Shankle <shankle@ee.Stanford.EDU>
From: Hector Garcia-Molina <hector@cs.stanford.edu>
Subject: Re: Quals Question 2002

At 04:26 PM 2/15/2002 -0800, you wrote:
> Please turn in your Quals Question 2002. You can send email or a hard copy

Here is my question...
hector

Hector Garcia-Molina
EE Quals Question 2002

The Fibonacci sequence is 1, 1, 2, 3, 5, 8, 13, ...
Each term is computed as the sum of the previous two terms.

(1) Write a function F(I) that computes the Ith number in the
sequence. For example, F(6) should return 8.
First write the function using recursion, and
then using iteration.

(2) Estimate the amount of main memory used by each of the two
function implementations. For your estimate, just consider
the number of variables allocated (1 unit for each), either
on the stack, or in global space.

(3) Estimate the computation costs of each implementation.
Count only the number of additions performed by each.