CSI 213 - Data Structures
Lab 04 - Recursion

February 20, 2017

1. Write a recursive function to perform exponentiation, which returns x^m.(assume $m \geq 0$)

2. Write a recursive program that takes an integer input n and computes an approximation to the golden ratio using the following recursive formula:

$$f(n) = \begin{cases} 1, & \text{if } n = 0 \\ 1 + 1/f(n-1), & \text{if } n \geq 0 \end{cases}$$

3. Design a method that returns true, if element n is a member of array $x[]$ and false if not.

BEFORE YOU LEAVE, SHOW YOUR PROGRESS TO YOUR TA TO GET CREDIT

Grading for this lab is based on completion level:

5.0 = Successfully finished the assignment at the lab, on time and helped other students.

4.0 = Successfully finished the assignment at the lab, on time.

3.0 = Most of the assignment is finished with couple errors/missing parts

2.0 = Some of the assignment is finished and left the room early.

1.0 = Did not successfully finish, but attended the lab and showed effort.

0.0 = Did not attend the lab section, or did not attempt the lab.