

# Lab 3 – A last look at Recursion

*All work must be uploaded on Webcourses by Thursday @6pm.*

1. Using the pseudo code of the *Tower of Hanoi* problem, shown in your lecture notes, create a C program:
  - a. It should allow you to input your preferred number of disks (e.g., 3 or 4).
  - b. It should output all of the moves required to solve the problem with the relevant number of disks e.g., *Disk 0 moves from Tower 1 to Tower 3*.
  - c. Then .... Check if it works correctly for **3 disks** (look at list of moves that you derived last week) and for **4 disks**.
2. Using the pseudo code of the Fibonacci sequence, create a C program which:
  - a. Allows you to input your preferred term.
  - b. Outputs the correct value for that term.
3. Write the algorithm for the simple game (3 cup game) devised in the tutorial on Friday in a WORD document.
4. Take Lab 3 Quiz in WebCourses.

## Finally ....

Put the following documents in a folder, zip the folder, and upload it in Webcourses in the submission icon provided:

- a. A word/pdf document with the pseudo code/flowchart from Q3.
- b. C programs from Q1 & Q2.

**\*\* All of this lab will go towards your final CA mark. Ensure this is your own work, as if there is evidence of copying you will receive 0.**