

Outline for May 11, 2009

Reading: text, §9.4–9.6

1. Overview of bottom-up design
 - a. Take existing pieces and combine them
 - b. Keep building up until you have solved the problem
 - c. Do the glue first, with the smaller parts being stubs
 - d. Do the stubs
2. Example: compute binomial coefficients
 - a. Need to read user input (see bc-1.py)
 - b. Need to compute factorials (see bc-2.py)
 - c. Need to print polynomial with integer coefficients (see bc-3.py)
 - d. Combine (see bc.py)
3. Example: Monte Carlo method for approximating π
 - a. Need to generate where dart toss winds up (see mc-1.py)
 - b. Need to determine if it is in unit circle (see mc-2.py)
 - c. Need to read user input (see mc-3.py)
 - d. Combine (see mc.py)
4. Other approaches
 - a. Prototyping and spiral development