
Outline for February 29, 2012

1. Overview of bottom-up design
 - a. Take existing pieces and combine them
 - b. Keep building up until you have solved the problem
2. Example: compute binomial coefficients for $(1 + x)^n$
 - a. Need to read user input [*bc-1.py*]
 - b. Need to compute factorials [*bc-2.py*]
 - c. Need to print polynomial with integer coefficients [*bc-3.py*]
 - d. Combine [*bc.py*]
3. Example: Monte Carlo method for approximating π (random tosses onto a dart board)
 - a. Need to generate where dart toss winds up [*mc-1.py*]
 - b. Need to determine if it is in unit circle [*mc-2.py*]
 - c. Need to read user input [*mc-3.py*]
 - d. Combine [*mc.py*]
4. Other approaches
 - a. Prototyping and spiral development
 - b. Agile development