Lecture 15: May 28, 2024

Reading: zyBooks text, §2.10, 2.19, 3.13, 3.14, 8.5, 10.8
Assignments: Homework 3, due May 29 (Note extension); Extra Credit 2, due May 29 (Note extension)

1. Random and pseudorandom number generation
   (a) Pseudorandom numbers vs. random numbers
   (b) Pseudorandom number generators rand, random [prand1.c, prand2.c]
   (c) Seeding a pseudorandom number generator [prand1.c]
   (d) Obtaining random numbers [rand.c]
2. String functions [strings.c]
3. Copy, compare sequential bytes in memory [mem.c]
4. Math functions [mhodge.c]
5. Buffer overflow on the stack [bad2.c]
6. Writing a program with random numbers
   (a) Monty Hall problem [monty1.c]
   (b) Basic program, human does all selection of doors [monty2.c]
   (c) Fix bug and simplify calculation of win/lose [monty3.c]
   (d) Add randomness [monty4.c]
   (e) Delete Monty showing user a door [monty5.c]
   (f) Change main to determine whether switching wins or loses [monty6.c]
   (g) Clean up, and add clearer output at the end [monty7.c]
   (h) Make the number of rounds a macro [monty8.c]
   (i) Let user specify number of games on the command line [monty9.c]