Lecture 12: April 28, 2023

Reading: *zyBooks text*, §5.5, 5.9, 5.11, 10   **Assignments:** Homework 2 and Extra Credit 2, due May 10

1. Announcements

   (a) Gradescope entries for homework 2 and extra credit 2 are there now

   (b) Tutoring available from the CS Tutoring Club; sign up information in an announcement

2. Array of strings [*echo.c*, *echo2.c*]

3. Operators

   (a) Comma operator `,`

      i. `a = ( y , z )` means evaluate y, evaluate z, set value of a to value of z

      ii. Example 1: `a = 5, b = 2; x = ( a = a+5, b++)` sets a to 10, b to 3, and x to 2

      iii. Example 2: prompting; `while(printf("> "), scanf("%d", &x) != EOF)`

4. String library functions

   (a) Prototypes in include file *string.h*

   (b) String length: `strlen(str)`

   (c) String copy: `strcpy(dest, src)`; `strncpy(dest, src, number_chars)`

   (d) String catenation: `strcat(dest, src)`; `strncat(dest, src, number_chars)`

   (e) String comparison: `strcmp(dest, src)`; `strncmp(dest, src, number_chars)`

5. Recursive greatest common divisor

   (a) Go through Euclidean algorithm for computing gcd

   (b) Walk through function `gcd`, with $m = 4$ and $n = 6$

   (c) Do it again with $m = 126$ and $n = 28$

   (d) Go through program *gcd.c*