Day 18 Highlights

1. Reminders
   1. zyBooks Chapter 7 due Monday at midnight
   2. Project 3 is due Friday at 5pm
2. Three primary sources for input and output (standard, files, strings)
   1. Already seen **stdin** and **stdout**
   2. Files
      1. Need a “file pointer”
      2. Need to open and close the files
      3. Example

**#include <stdio.h>**

**int main(void) {**

**FILE \*fp;**

**fp = fopen("foobar", "w");**

**fprintf(fp, "Roll Tide\n");**

**fclose(fp);**

**return 0; }**

* 1. Strings –Can read from a string and write to a string
     1. **sscanf** and **sprintf**
     2. **char str[]="L25"; char c, int d;**

**sscanf(str, "%c%d", &c, &d);**

1. Coding Examples
   1. Create a file (**data1**) that has 10 integers in it. Write a program that reads from that file and prints the sum and average of all the integers in that file.
   2. Write the same program again, only configure it so that it prompts the user for the name of the file
   3. Write the same program again, only configure it so that it can handle any numbers of integers.
   4. Write the same program again, only configure it so that it writes the results to a new file (**results.txt**)