CS NOTES 10/13/2021

**Functions**

* Self-contained named unit/block of code
* Every function will have a function named “main”
* Int main () {
  + Function type or return type
  + Name of function
  + Parameters
* We have to “call” (use/execute) a function
* It takes input, processes that input (or some other statement), and “returns”
  + On returns:
    - Always returns control to the calling function
    - Might also return a value
* There is a difference between a call to a function and a definition to a function
  + Call to a function Ex: foo(); //it is inside of the main function
  + Int main(){

foo(); //foo will be defined with a whole block of code. The program will redirect to this block of code, and execute it if you call ‘foo();’.

* Purpose of functions
  + Functions help us organize our code
    - Help us divide and conquer
  + Repeat code/ repeat code at different times
* Examples of functions we have learned:
  + .open();
  + .close();
  + .eof();
  + Setprecision()
  + Setw()
  + ALL ABOVE are predefined functions
* Creating our own functions
  + User-defined functions
  + 4 Types of user-defined functions
    - 1. Returns no value and accepts no parameters
    - 2. Returns no value but accepts some (1 or more) parameters
    - 3. Returns a value but accepts no parameters
      * Least used
    - 4. Returns a value and accepts parameters