EE 2905 Coding Guide (Dr. Johnson)

Last Updated 6/30/22

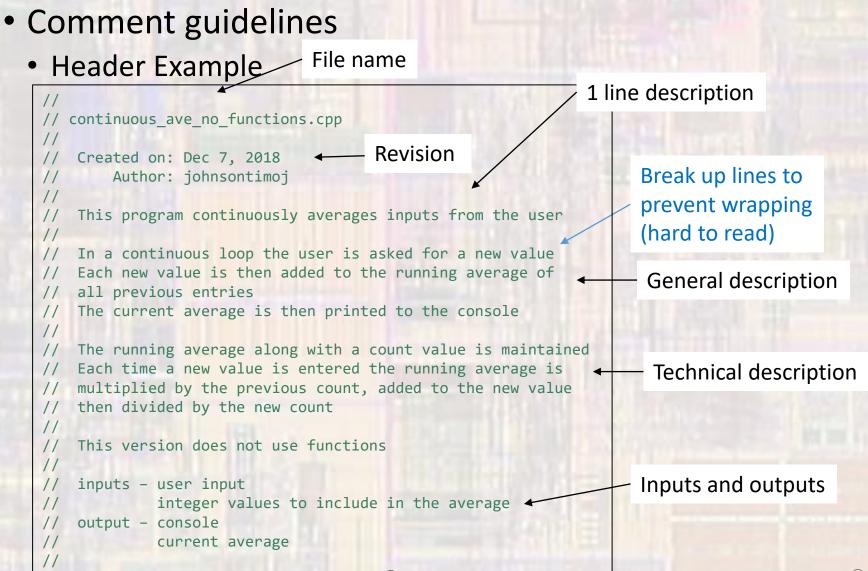
- Naming Guidelines
 - Absolutely no spaces in file names
 - use underscore instead: lab3_part1
 - File names must be descriptive
 - lab3_part1 or continuous_average
 l3p1, try15, i_hate_c
 - Mbed/Keil Studio defaults to main.cpp as the primary file name
 - You can choose another name if you wish
 - You must have only 1 main() function in the project

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- General C code guidelines
 - All code must be properly indented
 - I will not help debug un-indented code
 - I will not grade un-indented code
 - Your name must be in the header section of your code
 - File structure will be: pre-processor directives function prototypes hardware object creation main function definitions

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- General C code guidelines
 - Main will be used for control
 - Most processing will be performed in functions
 - (after we learn about functions)
 - Global variables only when absolutely needed
 - Attempt to make your code as general (re-usable) as possible
 - Use #define for constants and values used in multiple locations



Main should be used for high level coordination. This is for illustrative purposes

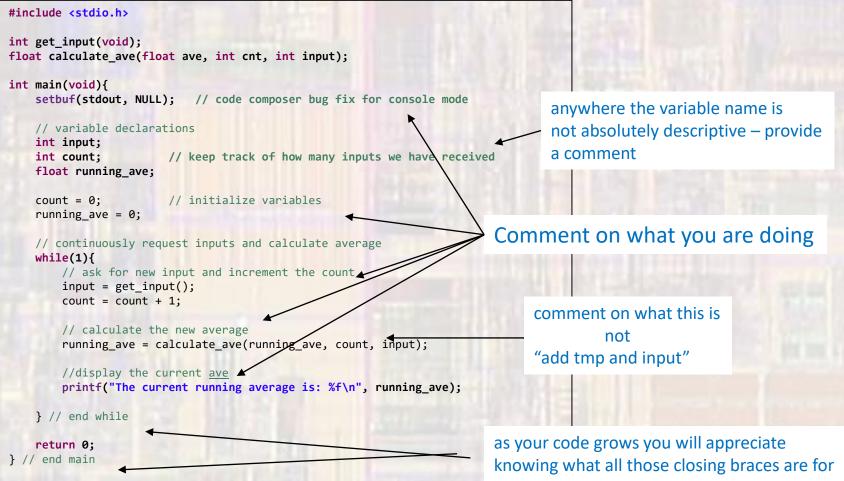
Comment guidelines

Main Example (no functions)

```
#include <stdio.h>
int main(void){
                        // code composer bug fix for console mode
   setbuf(stdout, NULL);
   // variable declarations
   int input;
                                                                              anywhere the variable name is
                      // keep track of how many inputs we have received
   int count;
   float running ave;
                                                                              not absolutely descriptive – provide
   float tmp;
                      // calculation temporary variable
                                                                              a comment
                      // initialize variables
   count = 0;
   running ave = 0;
   // continuously request inputs and calculate average
   while(1){
                                                                      Comment on what you are doing
       // ask for new input and increment the count
       printf("\nPlease enter an integer value: ");
       scanf("%i", &input);
       count = count + 1;
                                                                            comment on what this is
       // calculate the new average
       tmp = running ave * (count - 1);
                                              urrent
                                                                                      not
       tmp = tmp + input;
                                             new sum
                                                                            "add tmp and input"
       running_ave = tmp / count;
       //display the current ave
       printf("The current running average is: %f\n", running_ave);
   } // end while
                                                                      as your code grows you will appreciate
   return 0;
                                                                      knowing what all those closing braces are for
} // end main
```

Main should be used for high level coordination. (primarily does function calls)

- Comment guidelines
 - Main Example (with functions)



- Comment guidelines
 - Main Example (with functions)

