

COMP 222 Spring 2016

C Programming Assignment #1

Check the C notes on I/O, parsing, and formatting and write a command-line calculator that calculates sum or product of numbers entered on the command line.

Here's an example run of the program. The “%” prompt is the OS command prompt, the “>” is the internal prompt of your app. User input is indicated in *italics*, output from the program is underlined.

```
% calc.exe
> sum 3 5 7
15
> prod 2 2 2
8
> quit
Bye!
%
```

Structure

```
// include header files here
#include ...

// use define macros to create symbolic constants
#define ...

// declare global variables here,
// including arrays for input line and tokens
char curline[...];
char tokens[...][...];
...

// gettokens() function
// break input line into tokens using strtok

void gettokens() { }

// commandline() function
// loop over the following tasks
// -- print > prompt
// -- read in line of input
// -- use gettokens() to tokenize it
// -- if first token is "quit" then say "Bye!" and quit
// -- if first token is "sum" then compute sum of remaining tokens
// -- if first token is "prod" then compute prod of remaining tokens
// -- if first token is anything else print error message

void commandline() { }

// main method
// entry point to program

void main(void) {
    // call commandline()
}
```