# Assignment 1 – Command Line Arguments

**Description:**

This program serves as an example of how command line parameters can be used in C programs. To execute in the Linux virtual machine, you will write this. The number of command-line parameters should be displayed, together with a list of all of them on the terminal.

**Approach / What I Did:**

After I installed the Parallels and the bundle virtual machine then I accepted Assignment 1 which is on GitHub. Firstly, I looked at the requirement which shows in the Readme.md file, and I found that we need to create a c file by ourselves and then do some code to make sure the output should be like the sample execution. When we run "run make RUNOPTIONS= "(some arguments here)"" in the terminal, the output should show how many arguments we have in the command line and need to print out each comment line as well. For how to print each command line, I thought that we should use for loop to do that, however, the question I have is how can I get the total number of the arguments? (I will explain more in the Issues and Resolutions part.)

**Issues and Resolutions:**

My first question is: Since I saw the main function doing argc and argv[] before, I started to think about what "int argc "and "char* argv[]" mean in that function.

I resolved it by doing some code in my new c file first, I try to printout argc to get the integer value about it, and I found that the "int argc" represents the number of things that I entered the command line when running my program on the terminal. Then, I tried to print out the argv[] value by using the for loop in my program because its data type is "char". Finally, I realized the "char* argv[]" is an array that holds the string values of the things that were entered on the command line when running this program.

**Screen shot of compilation:**



**Screen shot(s) of the execution of the program:**

```
parallels@ubuntu-linux-22-04-desktop:~/Desktop/CSC415_Assignment1/csc415-assignm
ent-1-command-line-Jiayi079$ make run RUNOPTIONS="Hello, these are overridden op
tions 3 6 9"
./Gu_Jiayi_HW1_main Hello, these are overridden options 3 6 9
There were 9 arguments on the command line.
Argement 0: ./Gu_Jiayi_HW1_main
Argement 1: Hello,
Argement 2: these
Argement 3: are
Argement 4: overridden
Argement 5: options
Argement 6: 3
Argement 7: 6
Argement 8: 9
parallels@ubuntu-linux-22-04-desktop:~/Desktop/CSC415_Assignment1/csc415-assignm
ent-1-command-line-Jiayi079$ 
```