

Assignment 1 – Command Line Arguments

Description:

This assignment is to write a C program that accepts arguments via the command line and then displays each of those arguments to the terminal along with how many arguments there are.

Approach:

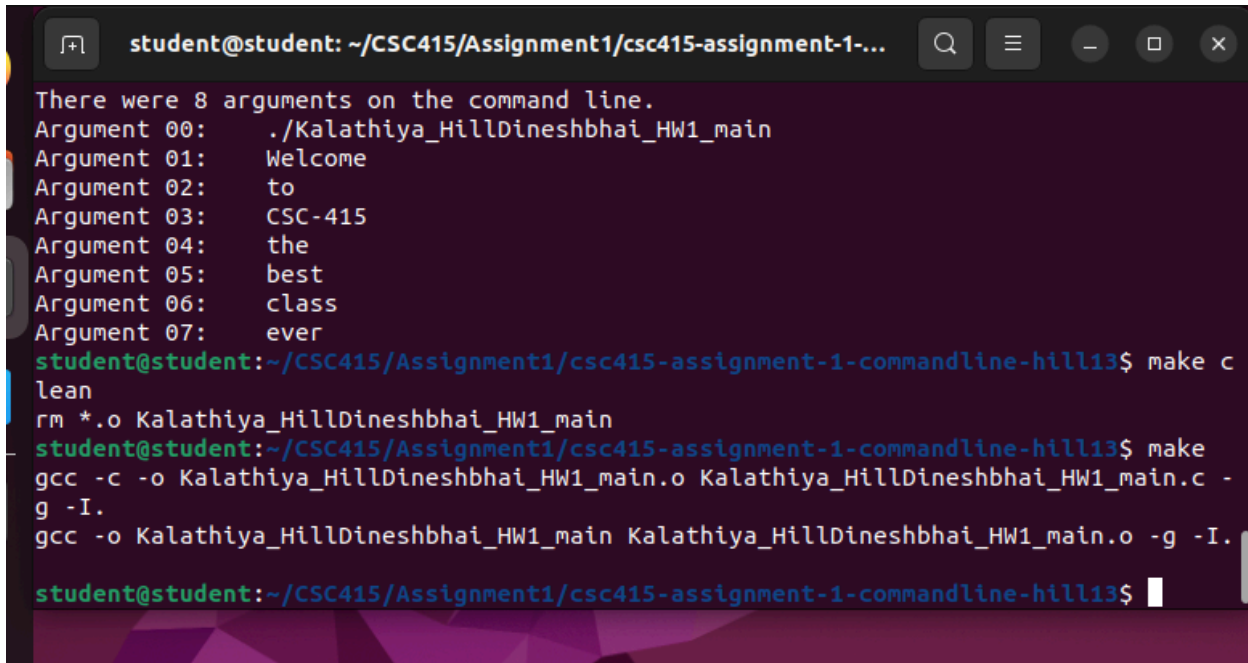
1. Clone the github repository and set up the directory structure.
2. Created a file named as Kalathiya_HillDineshbhai_HW1_main.c using the touch command.
3. Opened the file created using nano command.
4. In the file, used the argc to determine the number of command-line arguments. Also, used a for loop to iterate through the argv[] and print each of the argument in a new line.
5. Opened the Makefile file given using nano command, and then replace the First and Last name
6. Once, done compile the program and check the output of gcc compilation.
7. Take the screenshot of the compilation output.
8. Use the make run command to see the execution of the program.

Issues and Resolutions:

The only issue I faced was to clone the github repository. In the process, I was able to enter my github username, but when I typed the password or the token , I didn't see any input. To overcome the problem, I first thought that something was wrong with my device, so I turned off the VMware Workstation and even restarted the device, still I was facing the same issue. Then I remembered the professor had explained about git repository cloning somewhere on the modules in the canvas. I searched for it and found it , then I was able to clone the repository.

Analysis: Always go through the canvas modules. Almost all the solutions can be found there.

Screen shot of compilation:

A terminal window with a dark background and a purple geometric pattern at the bottom. The window title is "student@student: ~/CSC415/Assignment1/csc415-assignment-1-...". The output shows 8 command-line arguments: "There were 8 arguments on the command line. Argument 00: ./Kalathiya_HillDineshbhai_HW1_main Argument 01: Welcome Argument 02: to Argument 03: CSC-415 Argument 04: the Argument 05: best Argument 06: class Argument 07: ever". The user then runs "make clean", which removes the object file. Next, they run "make", which compiles the program using "gcc -c -o Kalathiya_HillDineshbhai_HW1_main.o Kalathiya_HillDineshbhai_HW1_main.c -g -I." and then links it with "gcc -o Kalathiya_HillDineshbhai_HW1_main Kalathiya_HillDineshbhai_HW1_main.o -g -I.". The prompt returns to the user.

```
student@student: ~/CSC415/Assignment1/csc415-assignment-1-...
There were 8 arguments on the command line.
Argument 00:  ./Kalathiya_HillDineshbhai_HW1_main
Argument 01:  Welcome
Argument 02:  to
Argument 03:  CSC-415
Argument 04:  the
Argument 05:  best
Argument 06:  class
Argument 07:  ever
student@student:~/CSC415/Assignment1/csc415-assignment-1-commandline-hill13$ make c
lean
rm *.o Kalathiya_HillDineshbhai_HW1_main
student@student:~/CSC415/Assignment1/csc415-assignment-1-commandline-hill13$ make
gcc -c -o Kalathiya_HillDineshbhai_HW1_main.o Kalathiya_HillDineshbhai_HW1_main.c -
g -I.
gcc -o Kalathiya_HillDineshbhai_HW1_main Kalathiya_HillDineshbhai_HW1_main.o -g -I.
student@student:~/CSC415/Assignment1/csc415-assignment-1-commandline-hill13$
```

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

```
student@student:~/CSC415/Assignment1/csc415-assignment-1-commandline-hill13$ make run
./Kalathiya_HillDineshbhai_HW1_main Hello World
There were 3 arguments on the command line.
Argument 00:  ./Kalathiya_HillDineshbhai_HW1_main
Argument 01:  Hello
Argument 02:  World
student@student:~/CSC415/Assignment1/csc415-assignment-1-commandline-hill13$

Argument 01:  Hello
Argument 02:  World
student@student:~/CSC415/Assignment1/csc415-assignment-1-commandline-hill13$ make run RUNOPTIONS="Welcome to CSC-415 the best class ever"
./Kalathiya_HillDineshbhai_HW1_main Welcome to CSC-415 the best class ever
There were 8 arguments on the command line.
Argument 00:  ./Kalathiya_HillDineshbhai_HW1_main
Argument 01:  Welcome
Argument 02:  to
Argument 03:  CSC-415
Argument 04:  the
Argument 05:  best
Argument 06:  class
Argument 07:  ever
student@student:~/CSC415/Assignment1/csc415-assignment-1-commandline-hill13$
```