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/******  
* Project: Assignment 1 – Command Line Arguments  
* File: WriteUp.pdf  
* Description: This is the write up file for the program and it includes a description  
*               of the project, what I did, issues I had, how I overcame the issues,  
*               compilation and execution output from the original program.  
*****/  

```

Description: This program displays the number of arguments from the command line and lists each one on the console.

What I did: I wrote a program written in C using some functions such as argc and argv which are argument count and argument vector respectively. I used them to count the number of arguments and to store each argument in a separate vector or array. Then I added print statements running on a for loop with counter as number of arguments. This prints each argument on command line and the first argument is the file name itself.

Issues I had: There were some issues which I had while programming such as some Virtual Machine obstacles and pushing the files to GitHub. I had to make multiple commits and changes because I kept on adding minor edits. Other than that, it was simple enough after watching the C Tutorial videos.

Compilation: I installed 'make' in the VM and used '\$make' to create an object file and compile the program.

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student@student-VirtualBox: ~/Desktop/assignment-1---command-line-arguments-devel...
File Edit View Search Terminal Help
student@student-VirtualBox:~/Desktop/assignment-1---command-line-arguments-devel
oper-soni$ ls
LICENSE Makefile README.md soni_dev_HW1_main.c
student@student-VirtualBox:~/Desktop/assignment-1---command-line-arguments-devel
oper-soni$ make
gcc -c -o soni_dev_HW1_main.o soni_dev_HW1_main.c -g -I.
gcc -o soni_dev_HW1_main soni_dev_HW1_main.o -g -I.
student@student-VirtualBox:~/Desktop/assignment-1---command-line-arguments-devel
oper-soni$ ls
LICENSE README.md soni_dev_HW1_main.c
Makefile soni_dev_HW1_main soni_dev_HW1_main.o
student@student-VirtualBox:~/Desktop/assignment-1---command-line-arguments-devel
oper-soni$
```

Execution: To execute the program, I used \$make run. And to execute with RUNOPTIONS, \$make run RUNOPTIONS="<arguments>".

```
student@student-VirtualBox: ~/Desktop/assignment-1---command-line-arguments-developer-soni
File Edit View Search Terminal Help
-soni$ make run
./soni_dev_HW1_main Hello World

There were 3 arguments on the command line.
Argument 0: ./soni_dev_HW1_main
Argument 1: Hello
Argument 2: World
student@student-VirtualBox:~/Desktop/assignment-1---command-line-arguments-developer
-soni$ make run RUNOPTIONS="Hello world, this is my world in Virtual Machine."
./soni_dev_HW1_main Hello world, this is my world in Virtual Machine.

There were 10 arguments on the command line.
Argument 0: ./soni_dev_HW1_main
Argument 1: Hello
Argument 2: world,
Argument 3: this
Argument 4: is
Argument 5: my
Argument 6: world
Argument 7: in
Argument 8: Virtual
Argument 9: Machine.
student@student-VirtualBox:~/Desktop/assignment-1---command-line-arguments-developer
-soni$
```