

Arturo Villalobos

CSCE 313-503

Professor Ahmed

3-5-21

PA2: Report

Youtube Video link: https://youtu.be/8zV_sCiFg5Q

Design:

The design of my program follows closely follows the examples in the class resources page save for the helper functions `trim()`, `split()`, and `vec_to_char_array()`. The `trim` function uses regular expressions to replace the leading and trailing spaces with empty strings . Using `string stream` and `get line` in the `split` function allows me to iterate through the command and push the section denoted by the delimiter parameter . The one reservation I have with this is that I constrained the delimiter to a single character , rather than a string. In my mind this is okay as there are not many times where the delimiter would need to be more than one character but it is a consideration.

Using `getenv()` I am able to dynamically print the users name instead of hard coding that feature in. As explained in the video , I handle `cd` and `mkdir` functionality in very much the same way , by calling those functions in the child branch but after the `dup2()` is called. One thing I failed to mention in my video when talking about quotes and the effects of them in my program is that when using the `echo` command with the `-e` flag outside of the quotes I can still influence the output with special character as shown below. I have not figured out why this is and after trying to tokenize in different ways by removing the quotes in the `split` function and inside the child branch itself , I wasn't able to `split(input line , '|')` correctly.

```
arturo@ubuntu:~/Desktop/csce313/pa2
arturo@ubuntu:~/Desktop/csce313/pa2$ ./a.out
arturo$: echo -e "hello \t world "
"hello    world "
arturo$: echo -e "hello \n\n world "
"hello

world "
arturo$: echo " -e hello \t\t world"
" -e hello \t\t world"
arturo$: exit
All done user bye!
arturo@ubuntu:~/Desktop/csce313/pa2$ █
```