**COMP 304 FALL 2022 – PROJECT 1**

**DEADLINE: NOVEMBER 17, 2022**

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1. INTRODUCTION

In this project, we worked on Unix-style operating system shell called Shellax. The assignment consists of different parts where we build our Unix command or upgrade The functionality of our Unix-style shell.

1. SYSTEM CALL WITH EXECV()

We implemented our execv() style system call to execute programs. The output of launching the programs immediately returns the command line prompt.

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As seen in the figure we execute our programs if they don’t have any pipes or specific command. We execute the bult-in commands with execv() function.

Graphical user interface, text

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This is the output after we execute the matching bult-in command.

1. HANDLING PIPING FOR SHELLAX

The input sometimes contains the pipes. To enable the piping, we created needed children to connect the other pipes. Supporting more than two pipes, allow us to handle the chain of pipes.

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In the createpipe() function we handle all pipes. Firstly we create the pipes then we put them into loop where we connect them in a row. Text

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After we are done with all pipes and the children, we simply terminate them.

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1. UNIQ COMMAND

Using uniq command in the Shellax allows us to find unique words. If -c parameter given then, it will print the count of those words.

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1. CHATROOM

This is the chatroom of comp304 folder. The user just writes in the named pipe after we write to all named pipes under the chatroom folder.

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1. PALINDROME COMMAND

This is the command that we implemented. This command basically finds the palindrome words in the arguments.

Graphical user interface, text

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