COMP 304 PROJECT-1 REPORT - 2022 SPRING
mkucuk18 - 69910
okutlar18 - 68171
(Git: https://github.com/MusabKucuk/ShellFyre)
Note: We invited the TA as a contributor but our request has not been accepted yet.

PART-1

In this part, we made the default Linux commands work in our shellfyre. Such as, "ls, cd, mkdir and more".

To get the command path we used *getenv("PATH")* . We store them in an array and if they match, we execute the command with *execv*.

```
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ ls
COMP304-Project-1.pdf  joker.txt  moo.mp3  r  shellfyre.c
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ mkdir NewFolde
r
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ ls
COMP304-Project-1.pdf  joker.txt  moo.mp3  NewFolder  r  shellfyre.c
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ date
Paz 03 Nis 2022 15:08:32 +03
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cp COcp: missi
ng destination file operand after 'CO?'
Try 'cp --help' for more information.
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cp COMP304-Pro
ject-1.pdf NewFolder
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ ls NewFolder
COMP304-Project-1.pdf
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ ls
COMP304-Project-1.pdf  joker.txt  moo.mp3  NewFolder  r  shellfyre.c
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$
```

PART-2

filesearch

This command searches files by name. Give a string as an argument and our command returns the files including that string in its name. -r recursively searches and -o opens all the files found. (We used *xdg-open* command for this)

To get the current location we used *getenv("PWD")*. Then if the file or the folder includes the given string it prints out these files or folders.

```
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ filesearch comp
        ./COMP304-Project-1.pdf
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ filesearch r
        ./COMP304-Project-1.pdf
        ./r
        ./shellfyre.c
        ./NewFolder
        ./joker.txt
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ filesearch -r comp
        ./COMP304-Project-1.pdf
        ./NewFolder/COMP304-Project-1.pdf
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ filesearch -r r
        ./COMP304-Project-1.pdf
        ./r
        ./shellfyre.c
        ./NewFolder
        ./joker.txt
        ./NewFolder/COMP304-Project-1.pdf
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$
```

cdh

This command returns the list of directories that we have been to before and the user can choose whichever he/she wants to go by typing its number or letter.

With *getenv("PWD")* we stored the current pwds in an array.

```
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cdh
        a 1) /home/musab/Desktop
        b 2) /home/musab
        c 3) /home/musab/Pictures
        d 4) /home/musab/Desktop/Assignment1
        e 5) /home/musab/Desktop/Project1/NewFolder
        f 6) /home/musab/Desktop/Project1

Select directory by letter or number: 5

musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1/NewFolder shellfyre$ ls
COMP304-Project-1.pdf
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1/NewFolder shellfyre$ cdh
        a 1) /home/musab/Desktop
        b 2) /home/musab
        c 3) /home/musab/Pictures
        d 4) /home/musab/Desktop/Assignment1
        e 5) /home/musab/Desktop/Project1/NewFolder
        f 6) /home/musab/Desktop/Project1

Select directory by letter or number: 3

musab@musab-TULPAR-T7-V19-3:/home/musab/Pictures shellfyre$ cdh
        a 1) /home/musab/Desktop
        b 2) /home/musab
        c 3) /home/musab/Pictures
        d 4) /home/musab/Desktop/Assignment1
        e 5) /home/musab/Desktop/Project1/NewFolder
        f 6) /home/musab/Desktop/Project1

Select directory by letter or number: 6

musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cdh
        a 1) /home/musab/Desktop
        b 2) /home/musab
        c 3) /home/musab/Pictures
        d 4) /home/musab/Desktop/Assignment1
        e 5) /home/musab/Desktop/Project1/NewFolder
        f 6) /home/musab/Desktop/Project1

Select directory by letter or number: 4

musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Assignment1 shellfyre$ 
```

take

User gives a path and if one or more of the elements do not exist, our command creates these folders and cd to the last element of the given path.

First, we parse the string with " / " and store them in a string array. Then If a string is an existing directory go in there then check the next string. If the string is not existing in this directory, create a directory called this string and go in there. And keep repeating until the last element of the string array.

joker

This command sends random jokes as a notification in every 15 min. (Ubuntu-linux)
We used crontab with joker.txt that includes this line.

*/15 * * * * (XDG_RUNTIME_DIR=/run/user/$(id -u) notify-send "$(curl https://icanhazdadjoke.com/)")

OUR AWESOME COMMANDS!

cowsay (COMMAND OF CEM)

Note: To run this command you need to install sox player.
You can use our <u>sudoX</u> command to install the sox player.
(If sudoX does not work use: <u>sudo apt-get install sox libsox-fmt-all</u>)

This command prints a cow as an ascii art in the console and whatever the user writes in the first argument is printed in the text cloud. Whenever the cow appears a "mooo" sound is also played.

```
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cowsay Hello!!!
 _____
< Hello!!! >
 ----------
        \   ^__^
         \  (oo)_____
            (__)\       )\/\
                ||----w |
                ||     ||
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cowsay MOOOOOOO
 _____
< MOOOOOOO >
 ----------
        \   ^__^
         \  (oo)_____
            (__)\       )\/\
                ||----w |
                ||     ||
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cowsay This screenshot taken for the report.
 _____
< This screenshot taken for the report. >
 ------------------------------------
        \   ^__^
         \  (oo)_____
            (__)\       )\/\
                ||----w |
                ||     ||
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ 
```

cancer (COMMAND OF MUSAB)

If you want to get annoyed, this command is for you. Please answer each question honestly. We combined this command with *cowsay* command.

```
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cancer
Are you sure want to check our project? Y/N y
Are you really sure? Y/N y
But are you really sure? Y/N n
 _____
< But, aren't you really sure? >
 ---------------------------
        \   ^__^
         \  (oo)_____
            (__)\       )\/\
                ||----w |
                ||     ||
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cancer
Are you sure want to check our project? Y/N n
 _____
< OK, just give them full points. >
 -----------------------------
        \   ^__^
         \  (oo)_____
            (__)\       )\/\
                ||----w |
                ||     ||
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cancer
Are you sure want to check our project? Y/N y
Are you really sure? Y/N y
But are you really sure? Y/N y
Will you give us full points? Y/N n
 _____
< I think they deserve it but ..... >
 ----------------------------------
        \   ^__^
         \  (oo)_____
            (__)\       )\/\
                ||----w |
                ||     ||
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cancer
Are you sure want to check our project? Y/N y
Are you really sure? Y/N y
But are you really sure? Y/N y
Will you give us full points? Y/N y
Do you swear? Y/N n
 _____
< OK! Your choice!!! ---Virus is loading--- >
 -------------------------------------
        \   ^__^
         \  (oo)_____
            (__)\       )\/\
                ||----w |
                ||     ||
musab@musab-TULPAR-T7-V19-3:/home/musab/Desktop/Project1 shellfyre$ cancer
Are you sure want to check our project? Y/N y
Are you really sure? Y/N y
But are you really sure? Y/N y
Will you give us full points? Y/N y
Do you swear? Y/N y
 _____
< Ok! They trust and love you. You can give them full points now. :P >
 -----------------------------------------------------------
        \   ^__^
         \  (oo)_____
            (__)\       )\/\
                ||----w |
                ||     ||
```

sudoX

This command created just for fun and it downloads the sox player in shellfyre to run *cowsay* command.