



SIMPLE SHELL



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How to run our program ?

```
g++ main.c -o shell
./shell
```

Features:

1. Execute simple commands with child processes:

We support internal command like ls, ls -la, pwd,...

```
zero>>ls
or
zero>>pwd
```

Result:

```
zero>>ls
Parent spawned a child <16152>
main.c  shell
```

```
Parent spawned a child <16153>
/home/thanhvo/Desktop/cs333/simple-shell
```

2. Execute simple command with **&**:

```
zero>>ls &
```

```
Parent spawned a child <16159>  
main.c  shell  
Child exited with status = 0
```

3. Execute output redirection:

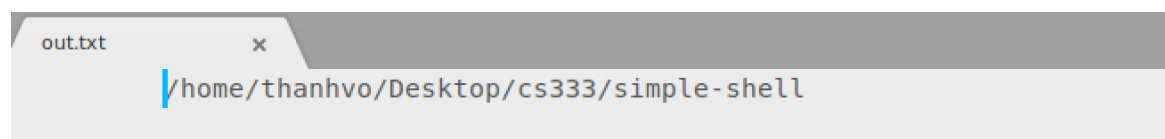
When you want execute output redirect, you just use ">" as redirect character

```
zero>>pwd > out.txt
```

Result:

```
zero>>pwd > out.txt  
Parent spawned a child <16169>
```

and data in out.txt like this:

A screenshot of a file editor window titled 'out.txt'. The window shows the file path '/home/thanhvo/Desktop/cs333/simple-shell' and the content of the file, which is the output of the 'pwd' command: '/home/thanhvo/Desktop/cs333/simple-shell'.

4. Execute input redirection:

When you want execute input redirect, you just use "<" as redirect character

```
zero>> sort < out.txt
```

Result:

```
zero>>sort < out.txt
Parent spawned a child <16224>
/home/thanhvo/Desktop/cs333/simple-shell
```

5. Execute two commands with a pipe:

Use '|' as linking character between two commands

```
zero>>ls -la | less
```

Result:

```
total 40
drwxrwxr-x 2 thanhvo thanhvo 4096 Jun  5 22:16 .
drwxrwxr-x 5 thanhvo thanhvo 4096 May 27 21:20 ..
-rw-rw-r-- 1 thanhvo thanhvo 7926 Jun  5 21:55 main.c
-rwx----- 1 thanhvo thanhvo   41 Jun  5 22:16 out.txt
-rwxrwxr-x 1 thanhvo thanhvo 17864 Jun  5 22:12 shell
(END)
```

6. Exit:

When you want to exit our program, you can use "exit" or "quit" or "\q" to exit this shell.

```
zero>>exit
or
zero>>quit
or
zero>>\q
```