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CSCI3362

Operating Systems

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<center>Project Report</center>

<u>Description:</u>

Key features of the shell:

- The shell supports basic commands such as: cd, wc, ls, ls -l, rm, exit, mkdir, and cat.

- The shell also prints the process id of the process whenever the suffix "&" is found.

- When improper sub-commands are inputted, an error message displays saying that the command is not found.

- The shell also supports input and output redirection:
  - The logic used here is to loop through and first check whether redirection is needed in each command inputted, and then redirect the standard input or output.

```
/Users/a1234/Desktop/osfinal/project$ ls -l > hello
^C/Users/a1234/Desktop/osfinal/project$ ls
Makefile        hello           shell           shell.c         shell.o
/Users/a1234/Desktop/osfinal/project$ 
```

```
/Users/a1234/Desktop/osfinal/project$ cat hello
Makefile
hello
shell
shell.c
shell.o
/Users/a1234/Desktop/osfinal/project$
```

Additional feature added:

- The command prompt displays the current directory, followed by the "$" sign.

```
1234ui-mbp:osfinal a1234$ cd project/
1234ui-mbp:project a1234$ ls
Makefile        shell.c
1234ui-mbp:project a1234$ make
gcc -c shell.c
gcc shell.c -o shell -Werror
1234ui-mbp:project a1234$ ./shell
/Users/a1234/Desktop/osfinal/project$
```