Assignment 0 - Part 2

**Assumtion**

I assumed that max length of command will be of max 100 characters and my shell will only handle commands :-

* exit
* cd
* echo
* history
* pwd
* cat
* date
* ls
* rm
* mkdir

Commands other than this will give error of “this command is out of scope”.

**Possible errors**

* option are to be added after commands
* in echo if options are other than -n or -E then it will print them also
* writing only cd will not change directory
* it will process command under 100 characters
* this shell doesn’t support piping so upon if user try to do piping with command then shell will give “argruments error” which is the first error i can find.

External commands

* cat (all commands)
* ls (all commands)
* date (all commands)
* rm (all commands)
* mkdir (all commands)

Internal commands

* cd (-L, -P)
* exit (no option)
* echo (-n no new line, -E default)
* history (-c clear history, -d delete at perticular position)
* pwd (-L, -P)

**External Commands**

All external commands are executed in execl in which address of given externals commands i.e. cat, ls ,date, rm, mkdir is given like /bin/”command name”. All take atmost 3 argruments so different execl commands are made like for 1,2 or 3 argruments. Error handling is done by the command c file so i have handled forking error or if option is missed error.

As these command are handle by the execl function so options can be used simutaneously.

**Internal Commands**

cd [-L, -P] [file path pr directory]

-L which is default force symbolic links to be followed while -P option use the physical directory structure without following symbolic links and both option cann’t be used simutaneously.

exit

This command will close the shell with a ending message.

echo [-n, -E] [text]

-n option can be used to print text without any newline after the text while -E option disable the interpretation of blacklash. Both options can be used simutaneously.

history [-c. -d] [position number for -d option]

History is a array which can store max last 100 commands entered in the shell after 100 command history will delete previous 1 commands to store next command. -c option can be used to clear the history or to clear the history array. -d option can be used to delete history at a perticular position which is followed by the option -d. Both option cann’t be used simutaneously.

pwd [-L, -P]

-L option is used to get pwd from envirourment with symlinks and -P option is used to avoid all symlinks. In this forking is done for -P option because getcwd dosen’t handle -P option while -L is handled with getcwd also. Both option cann’t be used simutaneously.