

Major 2 Sample Output

Aadesh Upadhyay

Students, use this as a reference only. While evaluating we will use different use cases to check if the functionalities have been implemented as expected in the assignment.

Making the Environment ready:

```
au0099@cell03-cse: ~/h/major-2
au0099@cell03-cse:~/h/major-2$ make
gcc -c -Wall newshell.c
gcc newshell.o -o newshell
au0099@cell03-cse:~/h/major-2$ ./newshell
>prompt
```

cd

The cd command allows users to change the current directory of the calling process. If no argument has been passed after cd it goes to "HOME" environment variable. For example:

- prompt> cd
- prompt> cd Documents

```
au0099@cell03-cse: ~/h/major-2
>prompt ls
makefile  newfolder  newshell  newshell.c  newshell.o  README.md
>prompt cd newfolder
>prompt ls
>prompt
```

Exit:

Example:

- prompt> exit
- prompt > exit ; ls

```

au0099@cell03-cse: ~/h/major-2
au0099@cell03-cse:~/h/major-2$ ./newshell
>prompt exit ; ls
makefile  newfolder  newshell  newshell.c  newshell.o  p.txt  README.md
au0099@cell03-cse:~/h/major-2$ ./newshell
>prompt exit ; pwd
/nfs/home/STUDENTS/au0099/h/major-2
au0099@cell03-cse:~/h/major-2$ ./newshell
>prompt exit
au0099@cell03-cse:~/h/major-2$ █

```

Path:

```

au0099@cell03-cse: ~/aadesh/major2
prompt> path
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/sbin:/usr/local/bin
prompt> path + ./system
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/sbin:/usr/local/bin:/system
prompt> path - ./system
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/sbin:/usr/local/bin
prompt> █

```

- ➔ path
- ➔ path + ./system
- ➔ path - ./system

myhistory:

This command allows the user to do three things.

- Without additional arguments, myhistory should display a list of previously run built-ins including this command.
- When entering myhistory -c the program should clear the history buffer and communicate this to the user.

myhistory -e <number between 1 and 20 (inclusive)> will run the builtin command determined by the index the user provides next to -e

```
au0099@cell03-cse: ~/aadesh/major2
prompt> myhistory
path
path
path
myhistory
path
myhistory
prompt> myhistory -e 2
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/
es:/snap/bin
prompt> myhistory -c
History cleared!
prompt> █
```

alias

The syntax is as follows: alias alias_name='command'.

```
>prompt alias aadesh='pwd'
>prompt aadesh
/nfs/home/STUDENTS/au0099/h
>prompt alias 5='ls'
>prompt 5
major-2
>prompt alias
Displaying known aliases:
Alias: aadesh      Commands: pwd
Alias: 5           Commands: ls
>prompt alias -c
All aliases removed
>prompt █
```

Printing the Alias: >prompt alias

Deleting all of the Aliases: >prompt alias -c

Deleting a specific Alias: >prompt -r <alias name>

```
au0099@cell03-cse: ~/h/major-2
>prompt alias aadesh='pwd'
>prompt alias
Displaying known aliases:
Alias: aadesh    Commands: pwd
>prompt alias -r aadesh
aadesh alias removed
>prompt
```

Input Output Redirection:

Redirection

The shell should support redirecting stdin and stdout to files. This does not apply to our builtin commands. Some redirection examples include:

- \$ cmd1 < in.txt executes cmd1, using in.txt as the source of input, instead of the keyboard.
- \$ cmd2 > out.txt executes cmd2 and places the output to file out.txt.

```
au0099@cell03-cse: ~/h/major-2
>prompt pwd > p.txt
>prompt cat < p.txt
cat: /nfs/home/STUDENTS/au0099/h/major-2: Is a directory
>prompt >prompt
```

Pipelining:

- `prompt> cmd1|cmd2|cmd3`

```
au0099@cell03-cse: ~/aadesh/major2
prompt> ls|wc|sort
      26      26     210
prompt> 
```