

DESIGN.pdf
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assgn-1

Design Document

GOAL: Create a simple shell that can execute the system calls and commands that can be executed in UNIX

Special Characters to keep in mind:

- '**>**' : redirect output to a designated file
- '**>>**' : append output to a designated file
- '**<**' : redirect input from a designated file
- '**|**' : pipe output of previous process into the input of next process
- '**&**' : run the job in the background

Functions:

1. main()
 - a. Use while(1) loops for infinite loops until exit is called
 - b. Check for special characters
 - c. Check for specific commands
 - d. Close and dup pipes
 - e. Check for errors
 - f. Check while loop condition for whether command line is done yet

Testing:

- | | |
|----------------------------------|------|
| 1. cd | pass |
| 2. pwd | pass |
| 3. mkdir | pass |
| 4. rmdir | pass |
| 5. ls | pass |
| 6. ls -l | pass |
| 7. ls -l > file | pass |
| 8. ls -l >> file | pass |
| 9. sort < file | pass |
| 10. ls -l grep -v "foo" more | pass |
| 11. echo text | pass |
| 12. cat file | pass |
| 13. rm file | pass |
| 14. mv file destination | pass |
| 15. cp file newfile | pass |
| 16. exit | pass |