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CSE 384, HW3
2.5.2020

#2 The text files (file1.txt and file2.txt) were created by the operator >. The > operator is the redirection operator. It stores output of a command into a file.

#3 Current.txt is a symbolic link to file2.txt. It might be useful because it works similarly to a Windows shortcut and if you delete a symbolic link, then only the link is deleted and not the file.

#4 I would use "--help" to get detailed information about executable commands in terms of usage information.(For example, mkdir --help) Then for the commands that are built in, I would use "help (whatever command you want to know about)". (For example, help cd)

#5

a. The command (ls /usr/bin | tee ls.txt | grep ^zip) reads standard input and copies it to both standard output and to one or more files. It captures the entire directory listing to the file ls.txt before grep filters the pipeline's contents.

b. The redirection operator(>) connects a command with a file. The pipeline operator (|) connects the output of one command with the input of a second command.

#6 a. Yes, because there is no file or directory '/bin/usr' so it can't complete the command. To redirect the error message, I would put in "/usr/bin" rather than "/bin/usr".

#8 a. The cat program took my input and printed an output right after the entered input.

#9 c. The difference between (cat data1.txt and cat < data1.txt) is with the < operator, it uses the input from the text file rather than from the keyboard. With cat data1.txt, it takes the keyboard input and puts it into the text file then with cat < data1.txt, it prints the output.

(Screenshots are in next pages)

```
dounglan@dounglan-VirtualBox: ~/hw3
File Edit View Search Terminal Help
dounglan@dounglan-VirtualBox:~$ pwd
/home/dounglan
dounglan@dounglan-VirtualBox:~$ ls
code    Documents  hw3      Pictures  scripts  tools
Desktop Downloads Music    Public   Templates Videos
dounglan@dounglan-VirtualBox:~$ cd hw3
dounglan@dounglan-VirtualBox:~/hw3$ echo "This is text file 1" > file1.txt
dounglan@dounglan-VirtualBox:~/hw3$ echo "This is text file 2" > file2.txt
dounglan@dounglan-VirtualBox:~/hw3$ ln -s file1.txt current.txt
dounglan@dounglan-VirtualBox:~/hw3$ cat current.txt
This is text file 1
dounglan@dounglan-VirtualBox:~/hw3$ rm current.txt
dounglan@dounglan-VirtualBox:~/hw3$ ln -s file2.txt current.txt
dounglan@dounglan-VirtualBox:~/hw3$ cat current.txt
This is text file 2
dounglan@dounglan-VirtualBox:~/hw3$ ls -l current.txt
lrwxrwxrwx 1 dounglan dounglan 9 Jan 29 15:48 current.txt -> file2.txt
dounglan@dounglan-VirtualBox:~/hw3$ file current.txt
current.txt: symbolic link to file2.txt
dounglan@dounglan-VirtualBox:~/hw3$ echo "Hi" > file2.txt
dounglan@dounglan-VirtualBox:~/hw3$ cat current.txt
Hi
```

```
dounglan@dounglan-VirtualBox: ~/hw3
File Edit View Search Terminal Help
Hi
dounglan@dounglan-VirtualBox:~/hw3$ echo "This is text file 2" > file2.txt
dounglan@dounglan-VirtualBox:~/hw3$ cat current.txt
This is text file 2
dounglan@dounglan-VirtualBox:~/hw3$ --help
--help: command not found
dounglan@dounglan-VirtualBox:~/hw3$ -help
Command '-help' not found, did you mean:

  command 'dhelp' from deb dhelp

Try: sudo apt install <deb name>
dounglan@dounglan-VirtualBox:~/hw3$ help
GNU bash, version 4.4.20(1)-release (x86_64-pc-linux-gnu)
These shell commands are defined internally.  Type 'help' to see this list.
Type 'help name' to find out more about the function 'name'.
Use 'info bash' to find out more about the shell in general.
Use 'man -k' or 'info' to find out more about commands not in this list.

A star (*) next to a name means that the command is disabled.
```

```
dounglan@dounglan-VirtualBox: ~/hw3
File Edit View Search Terminal Help
A star (*) next to a name means that the command is disabled.

job_spec [&]
(( expression ))
. filename [arguments]
:
[ arg... ]
[[ expression ]]
alias [-p] [name[=value] ... ]
bg [job_spec ...]
bind [-lpsvPSVX] [-m keymap] [-f f>
break [n]
builtin [shell-builtin [arg ...]]
caller [expr]
case WORD in [PATTERN [| PATTERN].>
cd [-L|[-P [-e]] [-@]] [dir]
command [-pVv] command [arg ...]
compgen [-abcdefgjkuv] [-o option>
complete [-abcdefgjkuv] [-pr] [-D>
compopt [-o|+o option] [-DE] [name>
continue [n]
coproc [NAME] command [redirection>
history [-c] [-d offset] [n] or h>
if COMMANDS; then COMMANDS; [ eli>
jobs [-lnprs] [jobspec ...] or jo>
kill [-s sigspec | -n signum | -s>
let arg [arg ...]
local [option] name[=value] ...
logout [n]
mapfile [-d delim] [-n count] [-O>
popd [-n] [+N | -N]
printf [-v var] format [argument>
pushd [-n] [+N | -N | dir]
pwd [-LP]
read [-ers] [-a array] [-d delim]>
readarray [-n count] [-O origin] >
readonly [-aAf] [name[=value] ...>
return [n]
select NAME [in WORDS ... ;] do C>
set [-abefhkmnptuvxBCHP] [-o opti>
shift [n]
shopt [-pqsu] [-o] [optname ...]
```

```
dounglan@dounglan-VirtualBox: ~/hw3
File Edit View Search Terminal Help
eval [arg ...]
exec [-cl] [-a name] [command [arg>
exit [n]
export [-fn] [name[=value] ...] or>
false
fc [-e ename] [-lnr] [first] [last>
fg [job_spec]
for NAME [in WORDS ... ] ; do COMM>
for (( exp1; exp2; exp3 )); do COM>
function name { COMMANDS ; } or na>
getopts optstring name [arg]
hash [-lr] [-p pathname] [-dt] [na>
help [-dms] [pattern ...]
trap [-lp] [[arg] signal_spec ..>
true
type [-afptP] name [name ...]
typeset [-aAfFgilnrtux] [-p] name>
ulimit [-SHabcdefiklmnpqrstuvxPT]>
umask [-p] [-S] [mode]
unalias [-a] name [name ...]
unset [-f] [-v] [-n] [name ...]
until COMMANDS; do COMMANDS; done
variables - Names and meanings of>
wait [-n] [id ...]
while COMMANDS; do COMMANDS; done
{ COMMANDS ; }
dounglan@dounglan-VirtualBox:~/hw3$ ls /usr/bin | tee ls.txt | grep ^zip
zip
zipcloak
zipdetails
zipgrep
zipinfo
zipnote
zipsplit
dounglan@dounglan-VirtualBox:~/hw3$
```




cse384 [Running] - Oracle VM VirtualBox



File Machine View Input Devices Help

dounglan@dounglan-VirtualBox: ~/hw3



File Edit View Search Terminal Help

```
dounglan@dounglan-VirtualBox:~/hw3$ man cat
dounglan@dounglan-VirtualBox:~/hw3$ cat data1.txt data2.txt data3.txt
CSE 384
is a fun
class
dounglan@dounglan-VirtualBox:~/hw3$ cat data1.txt data2.txt data3.txt > combined.tx
t
dounglan@dounglan-VirtualBox:~/hw3$ chmod 600 data1.txt
dounglan@dounglan-VirtualBox:~/hw3$ ls -l data1.txt
-rw----- 1 dounglan dounglan 8 Jan 31 10:40 data1.txt
dounglan@dounglan-VirtualBox:~/hw3$ chmod 777 data2.txt
dounglan@dounglan-VirtualBox:~/hw3$ ls -l data2.txt
-rwxrwxrwx 1 dounglan dounglan 9 Jan 31 10:40 data2.txt
dounglan@dounglan-VirtualBox:~/hw3$ cat
Hi my name is Dounglan and I like chocolateHi my name is Dounglan and I like chocol
ate
^Z
[2]+  Stopped                  cat
dounglan@dounglan-VirtualBox:~/hw3$ cat data1.txt
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dounglan@dounglan-VirtualBox:~/hw3$ cat < data1.txt
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dounglan@dounglan-VirtualBox:~/hw3$
```