IT 1100: Introduction to Operating Systems

- Redirection and Compression

Command	Sample Usage			Description			
	cat foo.tar				display the contents of a tarball		
cat	cat the blue dog does tricks > cat-output.txt echo "the blue dog does tricks" > cat-output.				concatenate the input on the screen and redirect it to a file.		
	cat file1 file2 > file3				combine two files into a third file		
echo	save.txt	dog does tricks" > echo-			echo text and redirect it to a file. echo text and append it to the end of a file.		
less	less myfile.txt cat myfile.txt less			display the contents of a file with the ability to navigate up and down			
sort	sort myfile.txt cat myfile.txt sort			sort the output into alpha-numeric order based on the first word of the line			
uniq	sort myfile.txt uniq			remove duplicate lines that are adjacent to each other. best when used with the sort command			
grep	grep word myfile.txt search withi search term			in a file or directory or command output for a			
	grep -r word mydirectory/ search red			ursively within a directory			
	grep -i word myfile.txt search ca			se insensitive			
	grep -e ".boo." myf. egrep ".*boo.*" myf	search using	search using wildcards				
	ls grep myfile	search within	rch within a command output for a search term				
	wc myfile.txt	display the	display the line count, word count and byte count information of a file				
	wc -l myfile.txt	display the	e line count o	f a file	9		
wc	wc -w myfile.txt	display the word count of a file					

	ls wc -l	display th	splay the line count of the output of the ls command					
	head myfile.txt			display the first 10 lines of a file starting at the top				
head	head -n 20 myfile.txt cat myfile.txt head -n 20		display the specified number of lines of a file starting at the top					
tail	tail myfile.txt		display the last 10 lines of a file starting at the bottom					
			display the specified number of lines of a file starting at the bottom					
	tail -f /var/log/messages			view changes to the file as they occur				
tee	ls tee -a file.txt				redirect standard output to both the terminal and append it to a file			
ln	ln -s mydirectory/myf ln -s /full/path/to/orig /full/path/to/new/link			mlink	create a symbolic link, like a shortcut to a file or directory			
type	type foo			check if an alias name already exists as a command				
	alias list curr			list curreı	ent aliases			
alias	lalias too = car mytile fxf i less			create an alias for a command, like a nickname or shortcut				
unalias	alias ls="ls -color"			redefine an existing command				
	unalias -a foo remo			remove ar	move an alias			
zip unzip				create a zip file - this directory will be both compressed and zipped extension zip				
	THINXID TOO XID			tract a zip file - this file will be both uncompressed and zipped				
	zip -sf foo.zip unzip -l display a l			lay a list o	a list of files in the zip file			
	unzip -c display the c				contents of a zipped file			
	bzip2 -v foo.txt		create a bzip2 file - this will replace the original files with a new file extension bz2 using verbose option					

bzip2 bunzip2	bunzip2 foo.txt.bz2	extrac new f	a bzip2 file - this will replace the original files with a				
bzcat	bzcat foo.txt.bz2 less foo.txt.bz2	displa	y the contents of a bzip2 file				
	gzip -v foo.txt		create a gzip file - this will replace the original files with a new file extension gz				
	gzip -vr mydirectory		create a gzip file of a directory - this will replace the original files with a new file				
gzip gunzip	gzip -dv foo.txt.gz extra gunzip foo.txt.gz new		ract a gzip file - this will replace the original files with a				
zcat zless	ls -l /etc gzip > foo.txt.gz pipe foo.tx		the output of ls -l to the gzip command and store that in xt.gz				
	zcat foo.txt.gz display		the contents of a gzip file				
	zless foo.txt.gz display		y the contents of a gzip file				
	tar -cvvf foo.tar mydirectory		reate a tarball of a directory				
	tar -cvvf foo.tar file1.txt file2	2.txt	reate a tarball of a list of files				
tar	tar -xvvf foo.tar		extract a tarball				
	tar -rvf foo.tar file3.txt		add a file to the tarball				
	tar -tf foo.tar		ist the files in the tar file				
	tar -cvvf just_tar.tar file?.txt		ar a list of files using the wildcard				
tar/gzip	tar -cvzf foo.tgz mydirectory		create a tarball and gzip it at the same time z option send it through the gzip compression				
	tar -xvzf just.tar.gz tar -xvzf just.tgz		extract a tarball and gunzip at the same time				
	tar -cvzf just.tar.gz file?.txt		tar and gzip at the same time a list of files using the wildcard				
tar/bzip2	tar -cvjf just.tar.bz2 dirname,	/	create a tarball and bzip2 it at the same time j option sends it through the bzip2 compression				
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	tar -xvjf just.tar.bz2 extrac			et and bunzip2 at the same time		
> and >>	ls -l /usr/bin > ls-output.txt	redirect standard output to a new file				
	ls -l /usr/bin >> ls-output.txt	redirect star	edirect standard output and append to the end of a file			
<	cat < ls-output.txt			redirect standard input from a file		
2> and 2>> /dev/null	ls -l /bin/usr 2> /dev/null re	edirect stand	t standard error to /dev/null			
	ls -l /bin/usr 2>> ls-error.txt	edirect stand	lard error to a file			
&> and &>>	ls -l /bin/usr &> ls-output.txt ls -l /bin/usr &>> ls-output.txt			redirect standard output and standard error to the same file		
find	find /home -name 'fun.txt'	find files by name searching within the /home directory		searching within the /home directory		
	Find / -name *fun*	find files using wildcards to match a name searching within the root (/) directory				
	find ./ -iname *fun*	find files by name but be case insensitive searching within the current directory (using a dot-slash)				
	find ~ -name 'fun.txt'	find files by name in your \$HOME directory				
	find / -name "*fun.txt*" 2> /dev/null	find files by	nd files by name and redirect the errors			
altogether now	find / -name *elephant* 2> /dev/null >> save.t			find a file with elephant in the name and redirect standard error to /dev/null and redirect standard output to save.txt		
(pipe)	cat /etc/passwd sort less			redirect the standard output of one command to another command		
locate	locate zip grep bin			find files using a database. Searches for anything in the bin directory with the name zip. Example /bin/zip		
updatedb	updatedb			update the locate database so it can find recently created files.		