```
grep unix grepfile
grep -i "UNix" grepfile // Case insensitive search
grep -c "unix" grepfile //. Displaying the count of number of matches
grep uni grepfile
grep -w "uni" grepfile // Checking for the whole words in a file
grep -o "unix" grepfile // Displaying only the matched pattern
grep -n "unix" grepfile // Show line number while displaying the output
grep -v "unix" grepfile // Not mached lines
grep "^unix" grepfile //Matching the lines that start with a string : The ^
regular expression pattern.
grep "os$" grepfile //Matching the lines that end with a string : The $ regular
expression pattern.
cmp chap1 chap2 // first difference only
cmp -l chap1 chap2 // 1st differ position, 2nd value of differ position in first
file and 3rd for 2nd file//
comm chap11 chap22 // 1st first file diff, 2nd is 2nd file diff, 3rd is common
comm -12 chap11 chap22 // -1 is supress first file diff, -2 is supress second file
diff
diff a1 a2 // a : add, c : change, d : delete
diff -c a1 a2 // marking context
count="ls -l"
$count
echo $count
mydir=`ls -l`
$mydir
echo $mydir
x=5
echo $x
echo $x+5
man bc
echo "12+5" | bc
echo "$x+5" | bc
echo "10^2" | bc
x=`echo "12+5" | bc`
echo $x
echo "var=10;var" | bc
echo "var=10;var^=2;var" | bc
x=`echo "var=500;var%=7;var" | bc`
echo $x
echo "var=10;++var" | bc
echo "var=10;var++" | bc
echo "var=10;--var" | bc
echo "var=10;var--" | bc
echo "10>5" | bc
echo "1==2" | bc
echo "10 && 5" | bc
echo "0 || 0" | bc
echo "! 0" | bc
pi=`echo "4*a(1)" | bc -l`
echo "scale($pi)" | bc -l
echo "obase=2;15" | bc -l
echo "obase=8;9" | bc -l
echo "ibase=2;1111" | bc -l
echo "ibase=2;obase=8;10" | bc -l
echo 'n=8;m=10;if(n>m) print "n is greater" else print "m is greater" ' | bc -l //
conditional
echo "for(i=1; i<=10; i++) {i;}" | bc // iteration
man ps
//PID – the unique process ID
//TTY – terminal type that the user is logged into
//TIME – amount of CPU in minutes and seconds that the process has been running
//CMD – name of the command that launched the process.
ps -e //View Processes
ps -A //View Processes
ps -a // View Processes not associated with a terminal
ps -T //View all processes associated with this terminal
ps -r //View all the running processes
ps -x // View all processes owned by you
ps -p process_id  //View process by process ID
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```
ps --pid process_id  // View process by process ID
ps p process_id  //View process by process ID
//Select by parent process ID
ps -p 805
ps --ppid 805
ps -af //Use -f to view full-format listing.
ps -F // Use -F to view Extra full format
ps -aN --format cmd,pid,user,ppid // To view process according to user-defined
format.
man kill
kill -9 process_id
man chmod
ls -l note
//u -- user
//g -- group
//o -- others
//a -- all
//+ -- assign permission
//- -- remove permission
//= -- assign absolute permission
//r -- read     4
//w -- write    2
//x -- execute  1
cat note
ls -l note
chmod u+x note
ls -l note
chmod u-x,go+r note ; ls -l note
chmod ugo=r note  // Asolute assignment and remove all
chmod a=r note
chmod 721 note
ls -ld *
chmod -R a+x folder1
chmod -R 644 folder1
//Shell Script
gedit firstprog.sh
// Execution
chmod +x firstprog.sh
./firstprog.sh
alias showdir='cd $1 ; ls -l'
showdir demo
man lp
pr emp.txt | lp
pr -3 emp.txt | lp
pr -tn -d -o emp.txt
head emp.txt
head -3 emp.txt
tail emp.txt
head -5 emp.txt | tee shortlist
uniq emp.txt
cut -c 6-22,12-25 shortlist
cut -d \| -f 2,3 shortlist | tee cutlist1
cut -d "|" -f 1,4- shortlist > cutlist2
paste
paste cutlist 1 cutlist2
paste -d \| cutlist1 cutlist2
man sort
sort -t "|" -r emp.txt
sort -t \| +2 -3 emp.txt    // -c for checking  -u for unique
man nl
nl emp.txt
```