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**CS2211B**

**01/30/2017**

**Assignment 1**

Question 1: ssh and Basic Commands (12 Marks)

1. Firass-MacBook-Pro:~ firas$ ssh -X fabousha@cs2211b.gaul.csd.uwo.ca

b)

[fabousha@cs2211b ~]$ hostname

cs2211b.gaul.csd.uwo.ca

c)

[fabousha@cs2211b ~]$ who

jnoble26 pts/2        2018-01-30 10:34 (nexus.wireless.uwo.ca)

dkim628  pts/3        2018-01-30 11:37 (184-175-48-93.dsl.teksavvy.com)

abissick pts/4        2018-01-30 10:51 (london142cw-lp140-02-69-156-177-169.dsl.bell.ca)

d)

[fabousha@cs2211b ~]$ date

Tue Jan 30 12:05:11 EST 2018

e)

[fabousha@cs2211b ~]$ pwd

/gaul/s1/student/2018/fabousha

f)

[fabousha@cs2211b ~]$ nano helloworld.txt

g)

[fabousha@cs2211b ~]$ cat helloworld.txt

Hello World! My name is Firas.

h)

[fabousha@cs2211b A]$ cat ~/helloworld.txt

Hello World! My name is Firas.

i)

[fabousha@cs2211b ~]$ mkdir my\_text\_files

j)

[fabousha@cs2211b ~]$ cp helloworld.txt my\_text\_files/hello2.txt

k)

[fabousha@cs2211b ~]$ mv ~/my\_text\_files/{hello2,myhello}.txt

l)

[fabousha@cs2211b ~]$ cd my\_text\_files

[fabousha@cs2211b my\_text\_files]$ rm myhello.txt

Question 2: List Command (10 Marks)

a)

[fabousha@cs2211b bin]$ ls ?????

alias  chmod  emacs  groff  lchsh  msgen  pinky  rsync  strip  users  zdiff

ascii  chown  etags  grops  links  namei  pkill  rview  tailf  vlock  zgrep

batch  cksum  false  gzexe  login  nohup  pl2pm  sdiff  teamd  watch  zless

bzcat  clear  fgrep  iconv  lsblk  nproc  ps2ps  secon  tload  wdctl  zmore

bzcmp  colrm  flock  igawk  lscpu  nroff  pydoc  shred  touch  which

bzip2  dconf  gcore  ipcmk  lsipc  paste  quota  skill  troff  write

chacl  dgawk  gdbus  ipcrm  mailq  patch  reset  sleep  trust  xargs

chage  diff3  gmake  kinit  mandb  pchrt  rmail  snice  tsort  xmlwf

chcat  dmesg  gneqn  klist  mkdir  pgawk  rmdir  spell  umask  xzcat

chcon  egrep  gpgv2  lastb  mknod  pgrep  rnano  split  uname  xzcmp

chgrp  eject  gprof  lchfn  mount  ping6  rpmdb  sprof  unzip  xzdec

b)

[fabousha@cs2211b bin]$ ls ?g\*

bg     egrep  fgconsole  igawk     pgawk  sg    xgettext

dgawk  fg     fgrep      ngettext  pgrep  wget  zgrep

c)

[fabousha@cs2211b bin]$ ls [qz]\*

qemu-ga  quotasync  zcmp   zegrep  zforce  zipdetails  zipinfo  zmore  zsoelim

quota    zcat       zdiff  zfgrep  zgrep   zipgrep     zless    znew

d)

[fabousha@cs2211b bin]$ ls \*[0-9]

base64            gdk-pixbuf-query-loaders-64  perl5.16.3

bashbug-64        geoiplookup6                 ping6

bunzip2           gio-querymodules-64          ps2pdf12

bzip2             gpg2                         ps2pdf13

c89               gpgv2                        ps2pdf14

c99               grub2-mkpasswd-pbkdf2        ps2ps2

csslint-0.6       gsdj500                      pstree.x11

db\_dump185        gtk-query-immodules-3.0-64   python2

diff3             i386                         python2.7

easy\_install-2.7  links2                       sqlite3

emacs-24.3        linux32                      tracepath6

gconftool-2       linux64                      x86\_64

e)

[fabousha@cs2211b bin]$ ls \*[!a-zA-z]?

a2p               font2c                       perl5.16.3

base64            gconftool-2                  ps2pdf12

bashbug-64        gdk-pixbuf-query-loaders-64  ps2pdf13

c89               gio-querymodules-64          ps2pdf14

c99               gsdj500                      pstree.x11

csslint-0.6       gtk-query-immodules-3.0-64   python2.7

db\_dump185        i386                         s2p

easy\_install-2.7  linux32                      x86\_64

emacs-24.3        linux64

Question 3: Redirection (14 Marks)

a)

[fabousha@cs2211b ~]$ cat letter.txt

01

02

03

04

05

06

07

08

09

10

11

12

13

14

15

b)

[fabousha@cs2211b ~]$ tail -5 letter.txt

11

12

13

14

15

c)

[fabousha@cs2211b ~]$ head -4 letter.txt >> letter2.txt

[fabousha@cs2211b ~]$ cat letter2.txt

01

02

03

04

d)

[fabousha@cs2211b ~]$ sort -r letter.txt | tee letter3.txt

15

14

13

12

11

10

09

08

07

06

05

04

03

02

01

e)

Cat < letter.txt uses the shell to open the file letter.txt whreas cat leter.txt is opened using cat.

f) echo cat uses echo to display the characters c a & t on to the screen. However, cat echo uses cat to copy contents of file named “echo” to screen, but it doesn’t exist so it gives error.

Question 4: Pipes (14 Marks)

a)

[fabousha@cs2211b ~]$ who | wc -l

21

b)

[fabousha@cs2211b ~]$ ls /usr/bin | grep cat | wc -l

19

c)

[fabousha@cs2211b ~]$ head -11 letter.txt | tail -5

07

08

09

10

11

[fabousha@cs2211b ~]$

d)

[fabousha@cs2211b ~]$ tail -10 .bash\_history | sort -u | tee last10.txt

cd my\_text\_files

close

exit

ls my\_text\_files

mv ~/dir2/{hello2,myhello}.txt

mv dir2{hello2,myhello}.txt

mv ~/my\_text\_files/{hello2,myhello}.txt

quit

rm myhello.txt

who

[fabousha@cs2211b ~]$ cat last10.txt

cd my\_text\_files

close

exit

ls my\_text\_files

mv ~/dir2/{hello2,myhello}.txt

mv dir2{hello2,myhello}.txt

mv ~/my\_text\_files/{hello2,myhello}.txt

quit

rm myhello.txt

who

Question 5: grep (18 Marks)

a)

[fabousha@cs2211b ~]$ grep -cv mil /usr/share/dict/words

478521

b)

[fabousha@cs2211b ~]$ grep -c 'ing$' /usr/share/dict/words

23714

c)

[fabousha@cs2211b ~]$ grep -Ei [aeiou]\{5\,} /usr/share/dict/words

**AAAAA**A

**Aeaea**

**Aeaea**n

**AIEEE**

cad**iueio**

Ch**aouia**

c**ooeei**ng

**euoua**e

G**uauae**nok

m**iaoue**d

m**iaoui**ng

P**auiie**

q**ueuei**ng

d)

[fabousha@cs2211b ~]$ grep '^z\w\*ly\b' /usr/share/dict/words | grep -v '[ft]'

zanily

zealously

zigzaggedly

zippingly

zonally

zoogeographically

zoographically

zoologically

zoophily

e)

[fabousha@cs2211b ~]$ grep -xe '\(..\)..\*\1' /usr/share/dict/words

Question 6: File Permissions (15 Marks)

a)

[fabousha@cs2211b ~]$ mkdir Top1

[fabousha@cs2211b ~]$ cd Top1

[fabousha@cs2211b Top1]$ mkdir Dir1

[fabousha@cs2211b Top1]$ touch File1

[fabousha@cs2211b Top1]$ ls

Dir1  File1

[fabousha@cs2211b Top1]$ cd Dir1

[fabousha@cs2211b Dir1]$ pwd

/gaul/s1/student/2018/fabousha/Top1/Dir1

[fabousha@cs2211b Dir1]$ mkdir Dir3

[fabousha@cs2211b Dir1]$ mkdir Dir4

[fabousha@cs2211b Dir1]$ ls

Dir3  Dir4

[fabousha@cs2211b Dir1]$ cd Dir3

[fabousha@cs2211b Dir3]$ pwd

/gaul/s1/student/2018/fabousha/Top1/Dir1/Dir3

[fabousha@cs2211b Dir3]$ touch File3

[fabousha@cs2211b Dir3]$ cd Dir4

-bash: cd: Dir4: No such file or directory

[fabousha@cs2211b Dir3]$ cd ../dir4

-bash: cd: ../dir4: No such file or directory

[fabousha@cs2211b Dir3]$ cd ./dir4

-bash: cd: ./dir4: No such file or directory

[fabousha@cs2211b Dir3]$ cd /../dir4

-bash: cd: /../dir4: No such file or directory

[fabousha@cs2211b Dir3]$ pwd

/gaul/s1/student/2018/fabousha/Top1/Dir1/Dir3

[fabousha@cs2211b Dir3]$ cd /../dir4/

-bash: cd: /../dir4/: No such file or directory

[fabousha@cs2211b Dir3]$ cd /../Dir4

-bash: cd: /../Dir4: No such file or directory

[fabousha@cs2211b Dir3]$ cd ../Dir4

[fabousha@cs2211b Dir4]$ pwd

/gaul/s1/student/2018/fabousha/Top1/Dir1/Dir4

[fabousha@cs2211b Dir4]$ touch File4

[fabousha@cs2211b Dir4]$ touch File5

[fabousha@cs2211b Dir4]$ touch File6

[fabousha@cs2211b Dir4]$ ls

File4  File5  File6

[fabousha@cs2211b /]$ cd ~

[fabousha@cs2211b ~]$ cd Top1

[fabousha@cs2211b Top1]$ ls -s Dir1/Dir4 Dir2

b)

[fabousha@cs2211b ~]$ chmod u=rwx,g=,o= Top1

c)

[fabousha@cs2211b Top1]$ chmod u=rwx,g=rx,o=rx Dir1

d)

[fabousha@cs2211b Dir1]$ chmod u=rwx,g=r,o= Dir3

e)

[fabousha@cs2211b Top1]$ chmod u=r,g=r,o=r File1

f)

[fabousha@cs2211b Dir4]$ chmod u=rx,g=x,o=x File5

g)

[fabousha@cs2211b ~]$ ls -ld Top1

drwx------. 3 fabousha fabousha 43 Jan 31 17:31 Top1

h)

[fabousha@cs2211b ~]$ ls -l Top1/Dir1/Dir4

total 0

-rw-rw-r--. 1 fabousha fabousha 0 Jan 31 17:02 File4

-r-x--x--x. 1 fabousha fabousha 0 Jan 31 17:02 File5

-rw-rw-r--. 1 fabousha fabousha 0 Jan 31 17:02 File6

Question 7: Terminology (15 Marks)

1. **man man**

Man (1) = command

Man (2) = command argument

1. **wc -1 myfile.txt**

wc = command

-1 = option

myfile.txt = command argument

1. **ls –all –l /usr/bin/\*cat\***

ls = command

-all = option

-l = option

/usr/bin/\*cat\* = command argument

1. **grep –icv ?[aeio].\* myfile.txt**

grep = command

-i/-c-/-v = option

?[aeio].\* = option argument

myfile.txt = command argument

1. **nano –w –o /gaul/s1/student/1985/dservos5 myfile.txt**

nano = command

-w = option

-o = option

/gaul/s1/student/1985/dservos5 = option argument

myfile.txt = command argument