**CS3377.0W1 Week 5 Lab 1 PART 1**

**Drew Pulliam - DTP180003**

**(Documentation with Terminal Log)**

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│ • MobaXterm 20.2 • │

│ (SSH client, X-server and networking tools) │

│ │

│ → SSH session to dtp180003@cslinux1.utdallas.edu │

│ • SSH compression : v │

│ • SSH-browser : v │

│ • X11-forwarding : v (remote display is forwarded through SSH) │

│ • DISPLAY : v (automatically set on remote server) │

│ │

│ → For more info, ctrl+click on help or visit our website │

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1. **Create short**

{cslinux1:~/cs3377} vim short

{cslinux1:~/cs3377} ls -l

total 280

drwx--x--x 5 dtp180003 sn 186 Jun 15 16:44 A1-dtp180003

-rw------- 1 dtp180003 sn 889 Jun 15 16:43 A1-dtp180003.gzip

-rw------- 1 dtp180003 sn 20480 Jun 15 16:39 A1-dtp180003.tar

-rw------- 1 dtp180003 sn 3412 Jun 15 16:53 A1-dtp180003.zip

-rw------- 1 dtp180003 sn 17 Jun 27 17:17 short

drwx--x--x 2 dtp180003 sn 23 Jun 20 17:49 w4

1. **Try and execute**

{cslinux1:~/cs3377} ./short

-bash: ./short: Permission denied

1. **Use chmod to make executable**

{cslinux1:~/cs3377} chmod 700 short

{cslinux1:~/cs3377} ls -l

total 304

drwx--x--x 5 dtp180003 sn 186 Jun 15 16:44 A1-dtp180003

-rw------- 1 dtp180003 sn 889 Jun 15 16:43 A1-dtp180003.gzip

-rw------- 1 dtp180003 sn 20480 Jun 15 16:39 A1-dtp180003.tar

-rw------- 1 dtp180003 sn 3412 Jun 15 16:53 A1-dtp180003.zip

-rwx------ 1 dtp180003 sn 17 Jun 27 17:17 short

drwx--x--x 2 dtp180003 sn 23 Jun 20 17:49 w4

{cslinux1:~/cs3377} ./short

hi there

1. **Add comment and #!/bin/bash**

{cslinux1:~/cs3377} vim short

{cslinux1:~/cs3377} cat short

#!/bin/bash

echo 'hi there'

# this script prints "hi there"

{cslinux1:~/cs3377} ./short

hi there

1. **Write first to display first argument**

{cslinux1:~/cs3377} vim first

{cslinux1:~/cs3377} chmod 700 first

{cslinux1:~/cs3377} ./first -q

first arg = -q

{cslinux1:~/cs3377} ./first banana

first arg = banana

{cslinux1:~/cs3377} cat first

#!/bin/bash

echo "first arg = $1"

# this script prints the first argument it is called with

1. **Write a script to copy a file to “file”.bak**

{cslinux1:~/cs3377} vim copyScript

{cslinux1:~/cs3377} cat copyScript

#!/bin/bash

cp $1 $1.bak

{cslinux1:~/cs3377} chmod 700 copyScript

{cslinux1:~/cs3377} ./copyScript first

{cslinux1:~/cs3377} ls

A1-dtp180003 A1-dtp180003.gzip A1-dtp180003.tar A1-dtp180003.zip copyScript first first.bak short w4

{cslinux1:~/cs3377} cat first

#!/bin/bash

echo "first arg = $1"

# this script prints the first argument it is called with

{cslinux1:~/cs3377} cat first.bak

#!/bin/bash

echo "first arg = $1"

# this script prints the first argument it is called with

1. **Create a file with a space in the name**

{cslinux1:~/cs3377} touch 'two words'

{cslinux1:~/cs3377} ls

A1-dtp180003 A1-dtp180003.gzip A1-dtp180003.tar A1-dtp180003.zip copyScript first first.bak short two words w4

{cslinux1:~/cs3377} ./copyScript 'two words'

cp: target ‘words.bak’ is not a directory

{cslinux1:~/cs3377} vim copyScript

{cslinux1:~/cs3377} ./copyScript 'two words'

{cslinux1:~/cs3377} ls

A1-dtp180003 A1-dtp180003.tar copyScript first.bak two words w4

A1-dtp180003.gzip A1-dtp180003.zip first short two words.bak

{cslinux1:~/cs3377} cat copyScript

#!/bin/bash

cp "$1" "$1".bak

**CS3377.0W1 Week 5 Lab 1 PART 2**

1. **Create and test myname variable**

{cslinux1:~/cs3377} myname=drew

{cslinux1:~/cs3377} echo $myname

drew

{cslinux1:~/cs3377} echo "$myname"

drew

{cslinux1:~/cs3377} echo '$myname'

$myname

1. **Make myname read only**

{cslinux1:~/cs3377} readonly myname

{cslinux1:~/cs3377} myname=john

-bash: myname: readonly variable

1. **What is value of HOME and ~?**

{cslinux1:~/cs3377} echo $HOME

/home/013/d/dt/dtp180003

{cslinux1:~/cs3377} echo ~

/home/013/d/dt/dtp180003

1. **What is current PATH? Append ~/bin**

{cslinux1:~/cs3377} echo $PATH

/usr/local/bin:/usr/bin:/bin:/usr/ccs/bin:/sbin:/usr/sbin:/usr/local/openwin/bin:/usr/openwin/bin

{cslinux1:~/cs3377} PATH=$PATH:~/bin

{cslinux1:~/cs3377} echo $PATH

/usr/local/bin:/usr/bin:/bin:/usr/ccs/bin:/sbin:/usr/sbin:/usr/local/openwin/bin:/usr/openwin/bin:/home/013/d/dt/dtp180003/bin

1. **Change PS1 to ‘$’ / ’#’**

{cslinux1:~/cs3377} echo $PS1

{\h:\w}

{cslinux1:~/cs3377} PS1='\$ '

1. **Write script that shows date + PATH**

$ date

Sat Jun 27 18:29:39 CDT 2020

$ vim infoScript

$ chmod 700 infoScript

$ ./infoScript

date = Sat Jun 27 18:33:46 CDT 2020

HOME = /home/013/d/dt/dtp180003

PATH = /usr/local/bin:/usr/bin:/bin:/usr/ccs/bin:/sbin:/usr/sbin:/usr/local/openwin/bin:/usr/openwin/bin:/home/013/d/dt/dtp180003/bin

**CS3377.0W1 Week 5 Lab 1 PART 3**

1. **Type the following commands (output not shown to save space)**

$ head /etc/services

...

$ ls /etc/

...

$ who

...

$ date

Sat Jun 27 18:35:22 CDT 2020

$ uname -a

Linux cslinux1.utdallas.edu 3.10.0-1127.8.2.el7.x86\_64 #1 SMP Tue May 12 16:57:42 UTC 2020 x86\_64 x86\_64 x86\_64 GNU/Linux

1. **Show 10 most recent commands**

$ history | tail

109 ./infoScript

110 vim infoScript

111 ./infoScript

112 LAB3

113 head /etc/services

114 ls /etc/

115 who

116 date

117 uname -a

118 history | tail

1. **Use ! to reference previous events**

$ !114

ls /etc/

$ history | tail

111 ./infoScript

112 LAB3

113 head /etc/services

114 ls /etc/

115 who

116 date

117 uname -a

118 history | tail

119 ls /etc/

120 history | tail

$ !-4

uname -a

Linux cslinux1.utdallas.edu 3.10.0-1127.8.2.el7.x86\_64 #1 SMP Tue May 12 16:57:42 UTC 2020 x86\_64 x86\_64 x86\_64 GNU/Linux

$ !!

uname -a

Linux cslinux1.utdallas.edu 3.10.0-1127.8.2.el7.x86\_64 #1 SMP Tue May 12 16:57:42 UTC 2020 x86\_64 x86\_64 x86\_64 GNU/Linux

$ !head

head /etc/services

# /etc/services:

# $Id: services,v 1.55 2013/04/14 ovasik Exp $

#

# Network services, Internet style

# IANA services version: last updated 2013-04-10

#

# Note that it is presently the policy of IANA to assign a single well-known

# port number for both TCP and UDP; hence, most entries here have two entries

# even if the protocol doesn't support UDP operations.

# Updated from RFC 1700, ``Assigned Numbers'' (October 1994). Not all ports

1. **Create alias d = date**

$ alias d='date'

$ d

Sat Jun 27 21:47:33 CDT 2020

$ alias d

alias d='date'

1. **Create and remove alias ls = ls -l**

$ alias ls='ls -l'

$ ls

total 544

drwx--x--x 5 dtp180003 sn 186 Jun 15 16:44 A1-dtp180003

-rw------- 1 dtp180003 sn 889 Jun 15 16:43 A1-dtp180003.gzip

-rw------- 1 dtp180003 sn 20480 Jun 15 16:39 A1-dtp180003.tar

-rw------- 1 dtp180003 sn 3412 Jun 15 16:53 A1-dtp180003.zip

-rwx------ 1 dtp180003 sn 29 Jun 27 17:52 copyScript

-rwx------ 1 dtp180003 sn 92 Jun 27 17:28 first

-rwx------ 1 dtp180003 sn 92 Jun 27 17:34 first.bak

-rwx------ 1 dtp180003 sn 74 Jun 27 18:33 infoScript

-rwx------ 1 dtp180003 sn 60 Jun 27 17:26 short

-rw------- 1 dtp180003 sn 0 Jun 27 17:50 two words

-rw------- 1 dtp180003 sn 0 Jun 27 17:52 two words.bak

drwx--x--x 2 dtp180003 sn 23 Jun 20 17:49 w4

$ 'ls'

A1-dtp180003 A1-dtp180003.tar copyScript first.bak short two words.bak

A1-dtp180003.gzip A1-dtp180003.zip first infoScript two words w4

$ unalias ls

$ ls

A1-dtp180003 A1-dtp180003.tar copyScript first.bak short two words.bak

A1-dtp180003.gzip A1-dtp180003.zip first infoScript two words w4

1. **Write one-line welcome function**

$ welcome() { echo "Welcome to my computer." ; }

$ welcome

Welcome to my computer.

1. **Write long function that does date + ls -l**

$ function long () {

> date

> ls -l

> }

$ long

Sat Jun 27 21:51:46 CDT 2020

total 544

drwx--x--x 5 dtp180003 sn 186 Jun 15 16:44 A1-dtp180003

-rw------- 1 dtp180003 sn 889 Jun 15 16:43 A1-dtp180003.gzip

-rw------- 1 dtp180003 sn 20480 Jun 15 16:39 A1-dtp180003.tar

-rw------- 1 dtp180003 sn 3412 Jun 15 16:53 A1-dtp180003.zip

-rwx------ 1 dtp180003 sn 29 Jun 27 17:52 copyScript

-rwx------ 1 dtp180003 sn 92 Jun 27 17:28 first

-rwx------ 1 dtp180003 sn 92 Jun 27 17:34 first.bak

-rwx------ 1 dtp180003 sn 74 Jun 27 18:33 infoScript

-rwx------ 1 dtp180003 sn 60 Jun 27 17:26 short

-rw------- 1 dtp180003 sn 0 Jun 27 17:50 two words

-rw------- 1 dtp180003 sn 0 Jun 27 17:52 two words.bak

drwx--x--x 2 dtp180003 sn 23 Jun 20 17:49 w4