

**CHAPTER 6 HANDS-ON PROJECTS (1-20)**

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**Project 6-1**

```
[student@COS-047 ~]$ printenv | more
```

```
XDG_VTNR=1
```

```
SSH_AGENT_PID=14525
```

```
XDG_SESSION_ID=7651
```

```
HOSTNAME=COS-047
```

```
IMSETTINGS_INTEGRATE_DESKTOP=yes
```

```
GPG_AGENT_INFO=/run/user/1001/keyring/gpg:0:1
```

```
TERM=xterm-256color
```

```
SHELL=/bin/bash
```

```
XDG_MENU_PREFIX=gnome-
```

```
VTE_VERSION=3804
```

```
HISTSIZE=1000
```

```
WINDOWID=37748743
```

```
IMSETTINGS_MODULE=none
```

```
USER=student
```

```
LS_COLORS=rs=0:di=38;5;27:ln=38;5;51:mh=44;38;5;15:pi=40;38;5;11:so=38;5;1
```

```
3:do=38;5;5:bd=48;5;232;38;5;11:cd=48;5;232;38;5;3:or=48;5;232;38;5;9:mi=0
```

```
5;48;5;232;38;5;15:su=48;5;196;38;5;15:sg=48;5;11;38;5;16:ca=48;5;196;38;5
```

```
;226:tw=48;5;10;38;5;16:ow=48;5;10;38;5;21:st=48;5;21;38;5;15:ex=38;5;34:*
```

```
.tar=38;5;9:*.tgz=38;5;9:*.arc=38;5;9:*.arj=38;5;9:*.taz=38;5;9:*.lha=38;5
```

```
;9:*.lz4=38;5;9:*.lzh=38;5;9:*.lzma=38;5;9:*.tlz=38;5;9:*.txz=38;5;9:*.tzo
```

```
=38;5;9:*.t7z=38;5;9:*.zip=38;5;9:*.z=38;5;9:*.Z=38;5;9:*.dz=38;5;9:*.gz=3
```

```
8;5;9:*.lrz=38;5;9:*.lz=38;5;9:*.lzo=38;5;9:*.xz=38;5;9:*.bz2=38;5;9:*.bz=
```

```
38;5;9:*.tbz=38;5;9:*.tbz2=38;5;9:*.tz=38;5;9:*.deb=38;5;9:*.rpm=38;5;9:*
```

```
jar=38;5;9:*.war=38;5;9:*.ear=38;5;9:*.sar=38;5;9:*.rar=38;5;9:*.alz=38;5;
```

```
9:*.ace=38;5;9:*.zoo=38;5;9:*.cpio=38;5;9:*.7z=38;5;9:*.rz=38;5;9:*.cab=38
```

```
;5;9:*.jpg=38;5;13:*.jpeg=38;5;13:*.gif=38;5;13:*.bmp=38;5;13:*.pbm=38;5;1
```

```
3:*.pgm=38;5;13:*.ppm=38;5;13:*.tga=38;5;13:*.xbm=38;5;13:*.xpm=38;5;13:*
```

```
tif=38;5;13:*.tiff=38;5;13:*.png=38;5;13:*.svg=38;5;13:*.svgz=38;5;13:*.mn
```

```
g=38;5;13:*.pcx=38;5;13:*.mov=38;5;13:*.mpg=38;5;13:*.mpeg=38;5;13:*.m2v=3
```

```
8;5;13:*.mkv=38;5;13:*.webm=38;5;13:*.ogm=38;5;13:*.mp4=38;5;13:*.m4v=38;5
```

```
;13:*.mp4v=38;5;13:*.vob=38;5;13:*.qt=38;5;13:*.nuv=38;5;13:*.wmv=38;5;13:
```

```
*.asf=38;5;13:*.rm=38;5;13:*.rmvb=38;5;13:*.flc=38;5;13:*.avi=38;5;13:*.fl
```

```
i=38;5;13:*.flv=38;5;13:*.gl=38;5;13:*.dl=38;5;13:*.xcf=38;5;13:*.xwd=38;5
```

```
;13:*.yuv=38;5;13:*.cgm=38;5;13:*.emf=38;5;13:*.axv=38;5;13:*.anx=38;5;13:
```

```
--More--
```

```
*.ogv=38;5;13:*.ogx=38;5;13:*.aac=38;5;45:*.au=38;5;45:*.flac=38;5;45:*.mi
```

```
d=38;5;45:*.midi=38;5;45:*.mka=38;5;45:*.mp3=38;5;45:*.mpc=38;5;45:*.ogg=3
```

```
8;5;45:*.ra=38;5;45:*.wav=38;5;45:*.axa=38;5;45:*.oga=38;5;45:*.spx=38;5;4
```

```
5:*.xspf=38;5;45:
```

```
SSH_AUTH_SOCK=/run/user/1001/keyring/ssh
```

```
USERNAME=student
```

```
SESSION_MANAGER=local/unix:@/tmp/.ICE-unix/14357,unix/unix:/tmp/.ICE-unix/
```

```
14357
```

```
GNOME_SHELL_SESSION_MODE=classic
```

```
PATH=/usr/local/bin:/usr/local/sbin:/usr/bin:/usr/sbin:/bin:/sbin:/home/st
```

```
udent/.local/bin:/home/student/bin
```

```
[student@COS-047 ~]$ clear
```

```
[student@COS-047 ~]$ printenv SHELL PATH
/bin/bash
/usr/local/bin:/usr/local/sbin:/usr/bin:/usr/sbin:/bin:/sbin:/home/student/.local/bin:/home/student/bin
```

```
[student@COS-047 ~]$ clear
```

```
[student@COS-047 ~]$ MEMO="Meeting will be at noon today"
[student@COS-047 ~]$ echo $MEMO
Meeting will be at noon today
[student@COS-047 ~]$ echo '$HOME'
$HOME
```

```
[student@COS-047 ~]$ echo "$HOME"
/home/student
```

```
[student@COS-047 ~]$ echo $TODAY
'date'
[student@COS-047 ~]$ date
Fri Mar  9 20:09:05 MST 2018
[student@COS-047 ~]$ TODAY = 'date'
bash: TODAY: command not found...
[student@COS-047 ~]$ today
bash: today: command not found...
[student@COS-047 ~]$ TODAY
bash: TODAY: command not found...
[student@COS-047 ~]$ echo $TODAY
'date'
[student@COS-047 ~]$ rm $TODAY
rm: cannot remove "'date'": No such file or directory
[student@COS-047 ~]$ echo $TODAY
'date'
```

---

### Project 6-3

```
[student@COS-047 ~]$ let X=10+2*7
[student@COS-047 ~]$ echo $X
24
[student@COS-047 ~]$ let Y=X+2*4
[student@COS-047 ~]$ echo $Y
32
[student@COS-047 ~]$ clear
```

---

### Project 6-4

```
[student@COS-047 ~]$ cat > testscript
echo $MY_VAR
[student@COS-047 ~]$ chmod ugo+x testscript
[student@COS-047 ~]$ MY_VAR=2
[student@COS-047 ~]$ echo $MY_VAR
2
[student@COS-047 ~]$ printenv|more
XDG_VTNR=1
SSH_AGENT_PID=14525
XDG_SESSION_ID=7651
HOSTNAME=COS-047
IMSETTINGS_INTEGRATE_DESKTOP=yes
GPG_AGENT_INFO=/run/user/1001/keyring/gpg:0:1
TERM=xterm-256color
SHELL=/bin/bash
XDG_MENU_PREFIX=gnome-
VTE_VERSION=3804
HISTSIZE=1000
WINDOWID=37748743
IMSETTINGS_MODULE=none
```

[illegible]



LS\_COLORS=rs=0:di=38;5;27:ln=38;5;51:mh=44;38;5;15:pi=40;38;5;11:so=38;5;13:do=38;5;5:bd=48;5;232;38;5;11:cd=48;5;232;38;5;3:or=48;5;232;38;5;9:mi=05;48;5;232;38;5;15:su=48;5;196;38;5;15:sg=48;5;11;38;5;16:ca=48;5;196;38;5;226:tw=48;5;10;38;5;16:ow=48;5;10;38;5;21:st=48;5;21;38;5;15:ex=38;5;34:\*.tar=38;5;9:\*.tgz=38;5;9:\*.arc=38;5;9:\*.arj=38;5;9:\*.taz=38;5;9:\*.lha=38;5;9:\*.lzh=38;5;9:\*.lzma=38;5;9:\*.tlz=38;5;9:\*.txz=38;5;9:\*.tzo=38;5;9:\*.t7z=38;5;9:\*.zip=38;5;9:\*.z=38;5;9:\*.Z=38;5;9:\*.dz=38;5;9:\*.gz=38;5;9:\*.lrz=38;5;9:\*.lz=38;5;9:\*.lzo=38;5;9:\*.xz=38;5;9:\*.bz2=38;5;9:\*.bz=38;5;9:\*.tbz=38;5;9:\*.tbz2=38;5;9:\*.tz=38;5;9:\*.deb=38;5;9:\*.rpm=38;5;9:\*.jar=38;5;9:\*.war=38;5;9:\*.ear=38;5;9:\*.sar=38;5;9:\*.rar=38;5;9:\*.alz=38;5;9:\*.ace=38;5;9:\*.zoo=38;5;9:\*.cpio=38;5;9:\*.7z=38;5;9:\*.rz=38;5;9:\*.cab=38;5;9:\*.jpg=38;5;13:\*.jpeg=38;5;13:\*.gif=38;5;13:\*.bmp=38;5;13:\*.pbm=38;5;13:\*.pgm=38;5;13:\*.ppm=38;5;13:\*.tga=38;5;13:\*.xbm=38;5;13:\*.xpm=38;5;13:\*.tif=38;5;13:\*.tiff=38;5;13:\*.png=38;5;13:\*.svg=38;5;13:\*.svgz=38;5;13:\*.mng=38;5;13:\*.pcx=38;5;13:\*.mov=38;5;13:\*.mpg=38;5;13:\*.mpeg=38;5;13:\*.m2v=38;5;13:\*.mkv=38;5;13:\*.webm=38;5;13:\*.ogm=38;5;13:\*.mp4=38;5;13:\*.m4v=38;5;13:\*.mp4v=38;5;13:\*.vob=38;5;13:\*.qt=38;5;13:\*.nuv=38;5;13:\*.wmv=38;5;13:\*.asf=38;5;13:\*.rm=38;5;13:\*.rmvb=38;5;13:\*.flc=38;5;13:\*.avi=38;5;13:\*.fli=38;5;13:\*.flv=38;5;13:\*.gl=38;5;13:\*.dl=38;5;13:\*.xcf=38;5;13:\*.xwd=38;5;13:\*.yuv=38;5;13:\*.cgm=38;5;13:\*.emf=38;5;13:\*.axv=38;5;13:\*.anx=38;5;13:--More--\*.\*ogv=38;5;13:\*.ogx=38;5;13:\*.aac=38;5;45:\*.au=38;5;45:\*.flac=38;5;45:\*.mid=38;5;45:\*.midi=38;5;45:\*.mka=38;5;45:\*.mp3=38;5;45:\*.mpc=38;5;45:\*.ogg=38;5;45:\*.ra=38;5;45:\*.wav=38;5;45:\*.axa=38;5;45:\*.oga=38;5;45:\*.spx=38;5;45:\*.xspf=38;5;45:SSH\_AUTH\_SOCK=/run/user/1001/keyring/sshUSERNAME=studentSESSION\_MANAGER=local/unix:@/tmp/.ICE-unix/14357,unix/unix:/tmp/.ICE-unix/14357MY\_VAR=2GNOME\_SHELL\_SESSION\_MODE=classicPATH=/usr/local/bin:/usr/local/sbin:/usr/bin:/usr/sbin:/bin:/sbin:/home/student/.local/bin:/home/student/binMAIL=/var/spool/mail/studentDESKTOP\_SESSION=gnome-classicQT\_IM\_MODULE=ibusPWD=/home/studentXMODIFIERS=@im=ibusLANG=en\_US.UTF-8GDM\_LANG=en\_US.UTF-8GDMSESSION=gnome-classicHISTCONTROL=ignoredupsXDG\_SEAT=seat0HOME=/home/studentSHLVL=2GNOME\_DESKTOP\_SESSION\_ID=this-is-deprecatedXDG\_SESSION\_DESKTOP=gnome-classicLOGNAME=studentDBUS\_SESSION\_BUS\_ADDRESS=unix:abstract=/tmp/dbus-W7GK8o6EHN,guid=7b5b4b11824002a5a3d106f45aa34929LESSOPEN=||/usr/bin/lesspipe.sh %sWINDOWPATH=1:1:1:1:1:1:1:1:1:1:1:1:1:1:1XDG\_RUNTIME\_DIR=/run/user/1001DISPLAY=:0XDG\_CURRENT\_DESKTOP=GNOME-Classic:GNOMEXAUTHORITY=/run/gdm/auth-for-student-14tY5t/database\_=/usr/bin/printfenv

```
[student@COS-047 ~]$ clear
```

---

## Project 6-5

**Project 6-5 (NOTE:** Could not get the testscript command to run.)

```
[student@COS-047 ~]$ echo $PATH
/usr/local/bin:/usr/local/sbin:/usr/bin:/usr/sbin:/bin:/sbin:/home/student/.local/bin:/home/student/bin
[student@COS-047 ~]$ PATH = $PATH
bash: PATH: command not found...
[student@COS-047 ~]$ PATH=$PATH
[student@COS-047 ~]$ echo $PATH
/usr/local/bin:/usr/local/sbin:/usr/bin:/usr/sbin:/bin:/sbin:/home/student/.local/bin:/home/student/bin
[student@COS-047 ~]$ testscript
bash: testscript: command not found...
[student@COS-047 ~]$ find *script
testscript
[student@COS-047 ~]$ cat testscript
echo $MY_VAR
[student@COS-047 ~]$ testscript
bash: testscript: command not found...
```

---

## Project 6-6

```
[student@COS-047 ~]$ vi seqtotal
let a=1
let b=2
let c=3
let total=a+b+c
echo $total

~
~
~
~
~
~
:x

[student@COS-047 ~]$ sh seqtotal
6
```

---

## Project 6-7

```
[student@COS-047 ~]$ vi veg_choice
echo -n "What is your favorite vegetable? "
read veg_name
if [ "$veg_name" = "broccoli" ]
then
echo "Broccoli is a healthy choice."
else
echo "Don't forget to eat your broccoli also."
```

```
fi
~
~
~
~
:X
```

```
[student@COS-047 ~]$ sh veg_choice
What is your favorite vegetable? broccoli
Broccoli is a healthy choice.
[student@COS-047 ~]$ sh veg_choice
What is your favorite vegetable? pizza
Don't forget to eat your broccoli also.
```

```
[student@COS-047 ~]$ vi veg_choice
echo -n "What is your favorite vegetable? "
read veg_name
if [ "$veg_name" = "broccoli" ]
then
echo "Broccoli is a healthy choice."
else
if [ "$veg_name" = "carrots","carrot" ]
then
echo "Carrots are great for you."
else
echo "Don't forget to eat your broccoli also."
fi
fi
```

```
~
~
~
~
:X
```

```
[student@COS-047 ~]$ sh veg_choice
What is your favorite vegetable? carrot
Don't forget to eat your broccoli also.
[student@COS-047 ~]$ sh veg_choice
What is your favorite vegetable? carrots
Don't forget to eat your broccoli also.
[student@COS-047 ~]$ vi veg_choice
[student@COS-047 ~]$ sh veg_choice
What is your favorite vegetable? carrots
Carrots are great for you.
[student@COS-047 ~]$ clear
```

---

## Project 6-8

```
[student@COS-047 ~]$ vi our_users
for USERS in john ellen tom becky eli jill
do
```



```
echo $USERS
```

```
done
```

```
~
```

```
~
```

```
~
```

```
:x
```

```
[student@COS-047 ~]$ sh our_users
```

```
john
```

```
ellen
```

```
tom
```

```
becky
```

```
eli
```

```
jill
```

```
[student@COS-047 ~]$ for USERS in john ellen tom becky eli jill
```

```
> do
```

```
> echo $USERS
```

```
> done
```

```
john
```

```
ellen
```

```
tom
```

```
becky
```

```
eli
```

```
jill
```

```
[student@COS-047 ~]$ clear
```

---

## Project 6-9

```
[student@COS-047 ~]$ cat > chap1
```

```
This is chapter 1
```

```
[student@COS-047 ~]$ cat > chap2
```

```
This is chapter 2
```

```
[student@COS-047 ~]$ cat > chap3
```

```
This is chapter 3
```

```
[student@COS-047 ~]$ cat > chap4
```

```
This is chapter 4
```

```
[student@COS-047 ~]$ vi chapters
```

```
for file in chap[1234]; do
```

```
more $file
```

```
done
```

```
~
```

```
~
```

```
~
```

```
:x
```

```
[student@COS-047 ~]$ sh chapters
```

```
This is chapter 1
```

```
This is chapter 2
```

**Project 6-10 (NOTE:** Could not get the sh nameaddr command to work, I edited the nameaddr in the vi editor several times

```
echo -n "Try to guess my favorite color: "  
read guess  
while [ "$guess" != "red" ]; do  
echo "No, not that one. Try again. "; read guess  
done
```

```
~  
~  
~  
:x
```

```
[student@COS-047 ~]$ sh colors  
Try to guess my favorite color: blue  
No, not that one. Try again.  
green  
No, not that one. Try again.  
red  
[student@COS-047 ~]$ clear
```

```
[student@COS-047 ~]$ vi nameaddr  
looptest=y  
while [ "$looptest"=y]  
do  
echo -n "Enter Name: "; read name  
echo -n "Enter Street: "; read street  
echo -n "Enter City: "; read city  
echo -n "Enter State: "; read state  
echo -n "Enter Zip Code: "; read zip  
echo -n "Continue? (y)es or (n)o: "; read looptest  
done
```

```
~  
~  
:x
```

```
[student@COS-047 ~]$ vi nameaddr  
[student@COS-047 ~]$ sh nameaddr  
nameaddr: line 2: [: missing `']  
[student@COS-047 ~]$ vi nameaddr  
[student@COS-047 ~]$ sh nameaddr  
nameaddr: line 2: [: missing `']  
[student@COS-047 ~]$ vi nameaddr  
[student@COS-047 ~]$ sh nameaddr  
nameaddr: line 2: [: missing `']
```

```
[student@COS-047 ~]$ vi manycolors
echo -n "Enter your favorite color: "; read color
    case "$color" in
"blue") echo "As in My Blue Heaven.";;
"yellow") echo "As in the Yellow Sunset.";;
"red") echo "As in Red Rover, Red Rover.";;
"orange") echo "As in Autumn has shades of Orange.";;
* ) echo "Sorry, I do not know that color.";;
    esac
```

```
~
~
:x
```

```
[student@COS-047 ~]$ sh manycolors
-n Enter your favorite color:
green
Sorry, I do not know that color.
[student@COS-047 ~]$ sh manycolors
-n Enter your favorite color:
yellow
As in the Yellow Sunset.
```

---

## Project 6-12

```
[student@COS-047 ~]$ tput clear;tput cup 10 15;echo "Hello";tput cup 20 0
```

Hello

```
[student@COS-047 ~]$ vi scrmanage
the following lines:
tput cup $1 $2 # place cursor on row and col
tput clear # clear the screen
bold='tput smso' # set stand-out mode - bold
offbold='tput rmso' # reset screen – turn bold off
echo $bold # turn bold on
tput cup 10 20; echo "Type Last Name:" # bold caption
tput cup 12 20; echo "Type First Name:" # bold caption
echo $offbold # turn bold off
tput cup 10 41; read lastname # enter last name
tput cup 12 41; read firstname # enter first name
```

```
~
~
~
:x
```

```
[student@COS-047 ~]$ sh scrmanage
scrmanage: line 1: the: command not found
#[%i%p1%d;%p2%dH
```

```
scrmanage: line 4: '$\rmso\342\200\230': command not found
scrmanage: line 5: '$\rmso\342\200\230': command not found
```

Type Last Name:    Welch

Type First Name:    Chris

```
[student@COS-047 ~]$ vi scrmanage
[student@COS-047 ~]$ sh scrmanage
scrmanage: line 1: the: command not found
#[%i%p1%d;%p2%dH
```

Type Last Name:    Welch

Type First Name:    Christopher

---

## Project 6-13

```
[student@COS-047 ~]$ sh -v colors
echo -n "Try to guess my favorite color: "
Try to guess my favorite color: read guess
green
while [ "$guess" != "red" ]; do
echo "No, not that one. Try again. "; read guess
done
No, not that one. Try again.
red
```

```
[student@COS-047 ~]$ vi colors
echo -n "Try to guess my favorite color: "
read guess
while [ "$guess" != "red" ] ; do
echo "No, not that one. Try again. "; read guess
done
```

```
[student@COS-047 ~]$ vi colors
[student@COS-047 ~]$ sh -v colors
echo -n "Try to guess my favorite color: "
Try to guess my favorite color: read guess
green
while [ "$guess" != "red" ; do
echo "No, not that one. Try again. "; read guess
done
colors: line 3: [: missing `'
```

~~~~~

$$:\mathbf{X}$$

```
[student@COS-047 ~]$ sh -x colors
+ echo -n 'Try to guess my favorite color: '
Try to guess my favorite color: + read guess
green
+ '[' green '!=' red ']'
+ 'No, not that one. Try again. '
colors: line 4: No, not that one. Try again. : command not found
+ read guess
red
+ '[' red '!=' red ']'
[student@COS-047 ~]$ vi colors
```

```
echo -n "Try to guess my favorite color: "
read guess
while [ "$guess" != "red" ]; do
echo "No, not that one. Try again. "; read guess
done
```

~~~~~

## Project 6-14

## Project 6-14



-rw-rw-r--. 1 student student 41 Feb 24 18:32 notes  
-rw-rw-r--. 1 student student 64 Mar 9 23:41 our\_users  
-rw-rw-r--. 1 student student 92 Feb 27 22:19 p1  
-rw-rw-r--. 1 student student 25 Feb 27 22:19 p2  
-rw-rw-r--. 1 student student 117 Feb 27 22:19 p3  
-rw-rw-r--. 1 student student 574 Mar 6 14:12 pact  
drwxr-xr-x. 2 student student 6 Aug 18 2016 Pictures  
-rw-rw-r--. 1 student student 469 Mar 6 14:16 pneumname  
-rw-rw-r--. 1 student student 137 Feb 25 16:25 practice  
-rw-rw-r--. 1 student student 545 Mar 6 16:33 practivity  
-rw-rw-r--. 1 student student 117 Feb 27 20:28 product1  
-rw-rw-r--. 1 student student 115 Feb 27 20:31 product2  
-rw-rw-r--. 1 student student 147 Feb 27 21:51 products  
-rw-rw-r--. 1 student student 232 Feb 27 20:32 products3  
-rw-rw-r--. 1 student student 379 Mar 6 13:16 programmer  
-rw-rw-r--. 1 student student 197 Mar 6 13:25 progsal  
-rw-rw-r--. 1 student student 456 Mar 6 13:17 project  
drwxr-xr-x. 2 student student 6 Aug 18 2016 Public  
-rw-rw-r--. 1 student student 458 Mar 10 00:17 scrmanage  
-rw-rw-r--. 1 student student 7 Feb 25 19:19 second  
drwx-----. 2 student student 6 Feb 24 22:31 secure  
-rw-rw-r--. 1 student student 53 Mar 9 23:21 seqtotal  
-rw-rw-r--. 1 student student 284 Mar 6 20:36 software  
-rw-rw-r--. 1 student student 177 Feb 25 20:07 sonnet  
-rw-rw-r--. 1 student student 283 Feb 27 21:36 sorted\_phones  
drwxrwxr-x. 2 student student 73 Feb 27 19:49 source  
-rw-rw-r--. 1 student student 57 Mar 5 22:01 stuff\_replace  
-rw-rw-r--. 1 student student 41 Mar 6 13:40 t1  
-rw-rw-r--. 1 student student 57 Mar 6 13:41 t2  
-rw-rw-r--. 1 student student 16 Mar 6 13:43 t3  
-rw-rw-r--. 1 student student 379 Mar 6 13:44 t4  
-rw-rw-r--. 1 student student 67 Mar 6 13:46 t5  
-rw-rw-r--. 1 student student 99 Mar 6 13:24 temp1  
-rw-rw-r--. 1 student student 98 Mar 6 13:24 temp2  
drwxr-xr-x. 2 student student 6 Aug 18 2016 Templates  
-rw-rw-r--. 1 student student 67 Feb 27 19:01 testfile  
-rwxrwxr-x. 1 student student 13 Mar 9 20:14 testscript  
-rw-rw-r--. 1 student student 208 Feb 25 16:06 textfiles  
-rw-rw-r--. 1 student student 7 Feb 25 19:30 third  
-rw-rw-r--. 1 student student 54 Mar 6 16:50 trees  
-rw-rw-r--. 1 student student 369 Mar 6 13:08 unix\_stuff  
-rw-rw-r--. 1 student student 0 Mar 5 22:05 unix\_stuff2  
-rw-rw-r--. 1 student student 30 Feb 27 22:19 v1  
-rw-rw-r--. 1 student student 132 Feb 27 22:19 v2  
-rw-rw-r--. 1 student student 162 Feb 27 22:19 v3  
-rw-rw-r--. 1 student student 268 Mar 9 23:36 veg\_choice  
-rw-rw-r--. 1 student student 162 Feb 27 21:46 vendors  
-rwxrwxr-x. 1 student student 164 Feb 27 22:17 ven\_report  
drwxr-xr-x. 2 student student 6 Aug 18 2016 Videos  
-rw-rw-r--. 1 student student 279 Feb 27 22:19 vrep  
-rwxrwxrwx. 1 student student 0 Feb 27 23:19 vreport  
-rw-rw-r--. 1 student student 139 Feb 28 00:06 v\_report  
-rw-rw-r--. 1 student student 0 Feb 27 19:49 your\_file  
-rw-rw-r--. 1 student student 50 Mar 5 20:54 your\_list  
-rw-rw-r--. 1 student student 174 Mar 5 20:35 zool  
-rw-rw-r--. 1 student student 117 Mar 5 20:37 zoo2

## Project 6-15

```
[student@COS-047 source]$ vi phmenu
#=====
# Script Name: phmenu
# By: CW
# Date: 3-8-18
# Purpose: A menu for the Corporate Phone List
# Command Line: phmenu
#=====
loop=y
while [ "$loop"=y]
do
clear
tput cup 3 12; echo "Corporate Phone Reporting Menu"
tput cup 4 12; echo "=====
tput cup 6 9; echo "P - Print Phone List"
tput cup 7 9; echo "A - Add New Phones"
tput cup 8 9; echo "S - Search for Phones"
tput cup 10 9; echo "Q - Quit: "
tput cup 10 19;
read choice || continue
done

~
~
~
:x
```

```
[student@COS-047 source]$ sh phmenu
phmenu: line 9: [: missing `]'
[student@COS-047 source]$ vi phmenu
```

```
[No write since last change]
phmenu: line 9: [: missing `]'
```

```
Press ENTER or type command to continue
[student@COS-047 source]$ sh phmenu
```

Corporate Phone Reporting Menu

=====

P - Print Phone List  
A - Add New Phones  
S - Search for Phones

Q - Quit: q^C

```
[student@COS-047 source]$ clear
```

---

## Project 6-16

219-555-4567:Harrison:Joel:M:4540:Accountant:09-12-1985  
219-555-4587:Mitchell:Barbara:C:4541:Admin Asst:12-14-1995  
219-555-4589:Olson:Timothy:H:4544:Supervisor:06-30-1983  
219-555-4591:Moore:Sarah:H:4500:Dept Manager:08-01-1978  
219-555-4544:Polk:John:S:4520:Accountant:09-22-2001  
219-555-4501:Robinson:Albert:J:4501:Secretary:08-12-1997

```
[student@COS-047 source]$ grep 219-555-4591 corp_phones
219-555-4591:Moore:Sarah:H:4500:Dept Manager:08-01-1978
[student@COS-047 source]$ grep Accountant corp_phones
219-555-4567:Harrison:Joel:M:4540:Accountant:09-12-1985
219-555-4544:Polk:John:S:4520:Accountant:09-22-2001
[student@COS-047 source]$
```

```

[student@COS-047 source]$ pwd
/home/student/source
[student@COS-047 source]$ vi phmenu
#=====
# Script Name: phmenu
# By: CW
# Date: 3-8-18
# Purpose: A menu for the Corporate Phone List
# Command Line: phmenu
#=====
phonefile=~/.source/corp_phones
loop=y
while [ "$loop"=y ]
do
clear
tput cup 3 12; echo "Corporate Phone Reporting Menu"
tput cup 4 12; echo "=====
tput cup 6 9; echo "P - Print Phone List"
tput cup 7 9; echo "A - Add New Phones"
tput cup 8 9; echo "S - Search for Phones"
tput cup 10 9; echo "Q - Quit: "
tput cup 10 19;
read choice || continue
case $choice in
[Aa]) ./phoneadd ;;
[Pp]) ./phlist1 ;;
[Ss]) ./phonefind ;;
[Qq]) exit ;;
*) tput cup 14 4; echo "Invalid Code"; read choice ;;
esac
done

~
~
~
~
~
~
:x

```

```

[student@COS-047 source]$ sh phmenu
Corporate Phone Reporting Menu
=====

P - Print Phone List
A - Add New Phones
S - Search for Phones

Q - Quit: s
phmenu: line 24: ./phonefind: No such file or directory

```

## Corporate Phone Reporting Menu

=====

P - Print Phone List  
A - Add New Phones  
S - Search for Phones

Q - Quit: q

---

### Project 6-18

```
[student@COS-047 source]$ pwd
/home/student/source
[student@COS-047 source]$ vi phmenu
#=====
# Script Name: phmenu
# By: CW
# Date: 3-8-18
# Purpose: A menu for the Corporate Phone List
# Command Line: phmenu
#=====
phonefile=~/.source/corp_phones
loop=y
while [ "$loop"=y ]
do
clear
tput cup 3 12; echo "Corporate Phone Reporting Menu"
tput cup 4 12; echo "=====
tput cup 6 9; echo "P - Print Phone List"
tput cup 7 9; echo "A - Add New Phones"
tput cup 8 9; echo "S - Search for Phones"
tput cup 9 9; echo "V - View Phone List"
tput cup 10 9; echo "Q - Quit: "
tput cup 10 19;
```

```
read choice || continue
case $choice in
[Aa]) ./phoneadd ;;
[Pp]) ./phlist1 ;;
[Ss]) ./phonefind ;;
[Vv]) less $phonefile ;;
[Qq]) exit ;;
*) tput cup 14 4; echo "Invalid Code"; read choice ;;
esac
done
```

```
~
~
~
:x
```

sh phmenu

### Corporate Phone Reporting Menu

=====

P - Print Phone List  
A - Add New Phones  
S - Search for Phones  
V - View Phone List  
Q - Quit: v

### Corporate Phone Reporting Menu

=====

P - Print Phone List  
A - Add New Phones  
S - Search for Phones  
V - View Phone List  
Q - Quit: q

219-555-4567:Harrison:Joel:M:4540:Accountant:09-12-1985  
219-555-4587:Mitchell:Barbara:C:4541:Admin Asst:12-14-1995  
219-555-4589:Olson:Timothy:H:4544:Supervisor:06-30-1983  
219-555-4591:Moore:Sarah:H:4500:Dept Manager:08-01-1978  
219-555-4544:Polk:John:S:4520:Accountant:09-22-2001  
219-555-4501:Robinson:Albert:J:4501:Secretary:08-12-1997

/home/student/source/corp\_phones (END)

---

## Project 6-19

```
[student@COS-047 source]$ vi phlist1
# =====
# Script Name: phlist1
# By: CW
# Date: 3-8-18
# Purpose: Use awk to format colon-separated fields
# in a flat file and display to the screen
# Command Line: phlist1
# =====
clear
tput cup 2 20; echo "Corporate Phone List"
tput cup 3 20; echo "=====
tput cup 5 0;
awk -F: '{printf "%-12s %-12s %s\t%s %s %10.10s %s\n", $2, $3,
$4, $1, $5, $6, $7}' corp_phones

~
~
~
:x
```

```
[student@COS-047 source]$ sh phlist1
```

### Corporate Phone List

=====

Harrison	Joel	M	219-555-4567	4540	Accountant	09-12-1985
Mitchell	Barbara	C	219-555-4587	4541	Admin Asst	12-14-1995
Olson	Timothy	H	219-555-4589	4544	Supervisor	06-30-1983
Moore	Sarah	H	219-555-4591	4500	Dept Manag	08-01-1978
Polk	John	S	219-555-4544	4520	Accountant	09-22-2001
Robinson	Albert	J	219-555-4501	4501	Secretary	08-12-1997

---

### Project 6-20

```
[student@COS-047 source]$ pwd
/home/student/source
[student@COS-047 source]$ vi phoneadd
# =====
# Script Name: phoneadd
# By: CW
# Date: 3-8-18
# Purpose: A shell script that sets up a loop to add
# new employees to the corp_phones file.
# Command Line: phoneadd
#
# =====
trap "rm ~/tmp/* 2> /dev/null; exit"0123
phonefile=~/.source/corp_phones
looptest=y
while [ $looptest=y]
do
clear
tput cup 1 4; echo "Corporate Phone List Additions"
tput cup 2 4; echo "=====
tput cup 4 4; echo "Phone Number: "
tput cup 5 4; echo "Last Name : "
tput cup 6 4; echo "First Name : "
```



```

tput cup 7 4; echo "Middle Init : "
tput cup 8 4; echo "Dept # : "
tput cup 9 4; echo "Job Title : "
tput cup 10 4; echo "Date Hired : "
tput cup 12 4; echo "Add Another? (y)es or (q)uit: "
tput cup 4 18; read phonenum
if [ "$phonenum" = "q" ]
then
clear; exit
fi
tput cup 5 18; read lname
tput cup 6 18; read fname
tput cup 7 18; read midinit
tput cup 8 18; read deptno
tput cup 9 18; read jobtitle
tput cup 10 18; read datehired
# Check to see if last name is not a blank before you
# write to disk
if [ "$lname" > " " ]
then
echo "$phonenum:$lname:$fname:$midinit:$deptno:$
jobtitle:$datehired" >> $phonefile
fi
tput cup 12 33; read looptest
if [ "$looptest" = "q" ]
then
clear; exit
fi
done

:x

```

```

[student@COS-047 source]$ vi phoneadd
[student@COS-047 source]$ sh phoneadd
trap: usage: trap [-lp] [[arg] signal_spec ...]
[student@COS-047 source]$ chmod ugo+x phoneadd
[student@COS-047 source]$ ./phoneadd

```

## Corporate Phone List Additions

=====

Phone Number: 219-555-7175  
 Last Name : Mullins  
 First Name : Allen  
 Middle Init : L  
 Dept # : 7527  
 Job Title : Sales Rep  
 Date Hired : 02-19-2007

Add Another? (y)es or (q)uit: y

## Corporate Phone List Additions

=====

Phone Number: 219-555-7176

Last Name : Albertson

First Name : Jeannette

Middle Init : K

Dept # : 5547

Job Title : DC Clerk

Date Hired : 02-19-2007

Add Another? (y)es or (q)uit:q

[student@COS-047 source]\$ cat corp\_phones

219-555-4567:Harrison:Joel:M:4540:Accountant:09-12-1985

219-555-4587:Mitchell:Barbara:C:4541:Admin Asst:12-14-1995

219-555-4589:Olson:Timothy:H:4544:Supervisor:06-30-1983

219-555-4591:Moore:Sarah:H:4500:Dept Manager:08-01-1978

219-555-4544:Polk:John:S:4520:Accountant:09-22-2001

219-555-4501:Robinson:Albert:J:4501:Secretary:08-12-1997

555-555-4456:Welch:Chris:A:4200:\$

jobtitle:q

219-555-7175:Mullins:Allen:L:7527:\$

jobtitle:02-19-2007

219-555-7176:Albertson:Jeannette:K:5547:\$

jobtitle:02-19-2007