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CIS 045, Fall 2020

G08125504  
Backup Script Assignment

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## 1. Backup Script

#!/bin/bash

#

# Noboru Emori

# 11/21/2020

# Display a menu to ask the user for their name

# Use a function call to call the menu fucntion from a file called myfunctions

# after you get the users name, ask them if they want to backup a directory

# BACKUP\_DIR="$HOME/.secret/.backup"

# permission of BACKUP\_DIR is 700

#

#FUNCITON CALL OF THE MENU FUNCTION

. ./myfunctions

echo "Launching the Backup Utility. Ctrl+C to force quit"

menu

# After the menu goes successfully, go to readinput

readinput

### Main Code (The Actual Script File):

### Functions file

# This is my functions file

# Noboru Emori

# 11/28/2020

#

#

#

# Will back up to the directory below. Change this if desired

function create\_secret()

{

BACKUP\_DIR=$HOME/.secret/.backup

mkdir -p $BACKUP\_DIR

chmod 700 $BACKUP\_DIR

}

#

#

# Menu function

function menu()

{

echo "Welcome to cs 45 backup utility"

echo "-------------------------------"

echo -n "Hello $USER, what is your name?: "

read name

cat << MENUCAT

MENU

# Welcome $name, what would you like to do to the homework directory?

-------------------------------------------------------------------

1. Backup

2. Compress

3. Compress and Backup

4. Quit

-------------------------------------------------------------------

MENUCAT

}

# Function for backing up but not compressing the data

function backup\_func()

{

echo "Will back up a chosen directory"

ask\_directory

create\_secret

# copy files, no archiving

echo "Backing up directory $backup\_path"

cp -ru "$backup\_path" "$BACKUP\_DIR"

echo "Backed up directory $backup\_path to $BACKUP\_DIR"

exit

}

# Function for just compresing but not backing up data

function compress\_func()

{

echo "Will compress (tar and gzip) a chosen directory"

ask\_directory

archive\_compress

echo "Compressed $backup\_path into $compressedname"

exit

}

# Function for compressing and backing up

function candb\_func()

{

echo "Will compress (tar and gzip) a chosen directory, then back up"

ask\_directory

archive\_compress

create\_secret

mv "$compressedname" "$BACKUP\_DIR"

echo "Compressed $backup\_path into $compressedname and moved to $BACKUP\_DIR"

exit

}

# Function that asks for a directory, checks it, and puts it in $backup\_path

function ask\_directory()

{

echo "What directory would you like to work on?"

echo -n "Enter directory path: "

read backup\_path

# Below evalutes the path such that $HOME, ~, etc. will be expanded and used

backup\_path="`eval echo $backup\_path`"

if [ -d $backup\_path ]

then

echo "Directory $backup\_path found"

else

echo "Directory $backup\_path not found. Exiting Program"

exit 5

fi

}

# Function to compress $backup\_path into a timestamped backup\_time.gz

function archive\_compress()

{

backup\_filename="backup\_$(date +%s).tar"

echo "Compressing $backup\_path into $backup\_filename"

tar cf $backup\_filename $backup\_path

gzip $backup\_filename

compressedname="${backup\_filename}.gz"

}

function readinput()

{

while true

do

echo -n "Please select a number to continue: "

read user\_input

case $user\_input in

1|1.|Backup|backup)

backup\_func

# echo "Will back up your homework directory"

# break

;;

2|2.|Compress|compress)

compress\_func

# echo "Compress"

# break

;;

3|3.|"Compress and Backup"|"compress and backup")

candb\_func

# echo "Compress and Backup"

# break

;;

4|4.|Quit|quit)

echo "Exiting Program."

exit 5

;;

\*)

echo "Invalid option. Please try again"

;;

esac

done

}

### Sample Usage:

[cs45aa17@mc-redhat01 lab-12]$ ll ~/.secret/.backup

ls: cannot access /home/cs45aa17/.secret/.backup: No such file or directory

[cs45aa17@mc-redhat01 lab-12]$ ./askbackup

Launching the Backup Utility. Ctrl+C to force quit

Welcome to cs 45 backup utility

-------------------------------

Hello cs45aa17, what is your name?: Nobo

MENU

# Welcome Nobo, what would you like to do to the homework directory?

-------------------------------------------------------------------

1. Backup

2. Compress

3. Compress and Backup

4. Quit

-------------------------------------------------------------------

Please select a number to continue: 1

Will back up a chosen directory

What directory would you like to work on?

Enter directory path: ~/homework/week-12/lab-12

Directory /home/cs45aa17/homework/week-12/lab-12 found

Backing up directory /home/cs45aa17/homework/week-12/lab-12

Backed up directory /home/cs45aa17/homework/week-12/lab-12 to /home/cs45aa17/.secret/.backup

[cs45aa17@mc-redhat01 lab-12]$ ll ~/.secret/.backup

total 0

drwxrwxr-x. 3 cs45aa17 cs45aa17 111 Nov 29 01:59 lab-12

[cs45aa17@mc-redhat01 lab-12]$ ./askbackup

Launching the Backup Utility. Ctrl+C to force quit

Welcome to cs 45 backup utility

-------------------------------

Hello cs45aa17, what is your name?: Nobo

MENU

# Welcome Nobo, what would you like to do to the homework directory?

-------------------------------------------------------------------

1. Backup

2. Compress

3. Compress and Backup

4. Quit

-------------------------------------------------------------------

Please select a number to continue: 2

Will compress (tar and gzip) a chosen directory

What directory would you like to work on?

Enter directory path: .

Directory . found

Compressing . into backup\_1606633206.tar

tar: ./backup\_1606633206.tar: file is the archive; not dumped

Compressed . into backup\_1606633206.tar.gz

[cs45aa17@mc-redhat01 lab-12]$ ./askbackup

Launching the Backup Utility. Ctrl+C to force quit

Welcome to cs 45 backup utility

-------------------------------

Hello cs45aa17, what is your name?: Nobo

MENU

# Welcome Nobo, what would you like to do to the homework directory?

-------------------------------------------------------------------

1. Backup

2. Compress

3. Compress and Backup

4. Quit

-------------------------------------------------------------------

Please select a number to continue: 3

Will compress (tar and gzip) a chosen directory, then back up

What directory would you like to work on?

Enter directory path: $HOME/homework/week-12/lab-12

Directory /home/cs45aa17/homework/week-12/lab-12 found

Compressing /home/cs45aa17/homework/week-12/lab-12 into backup\_1606633220.tar

tar: Removing leading `/' from member names

tar: /home/cs45aa17/homework/week-12/lab-12/backup\_1606633220.tar: file is the archive; not dumped

Compressed /home/cs45aa17/homework/week-12/lab-12 into backup\_1606633220.tar.gz and moved to /home/cs45aa17/.secret/.backup

[cs45aa17@mc-redhat01 lab-12]$ ll ~/.secret/.backup

total 12

-rw-rw-r--. 1 cs45aa17 cs45aa17 8666 Nov 29 02:00 backup\_1606633220.tar.gz

drwxrwxr-x. 3 cs45aa17 cs45aa17 111 Nov 29 01:59 lab-12

[cs45aa17@mc-redhat01 lab-12]$ ll

total 32

-rwxrwxr-x. 1 cs45aa17 cs45aa17 446 Nov 28 22:10 askbackup

-rw-rw-r--. 1 cs45aa17 cs45aa17 4132 Nov 29 02:00 backup\_1606633206.tar.gz

-rw-rw-r--. 1 cs45aa17 cs45aa17 845 Nov 21 15:19 ifmyfunctions

-rwxrw-r--. 1 cs45aa17 cs45aa17 288 Nov 21 13:37 ifregex

-rw-rw-r--. 1 cs45aa17 cs45aa17 2955 Nov 28 22:12 myfunctions

-rwxr-xr-x. 1 cs45aa17 cs45aa17 7928 Nov 21 13:52 network

drwxrwxr-x. 2 cs45aa17 cs45aa17 6 Nov 28 20:52 tester\_dir