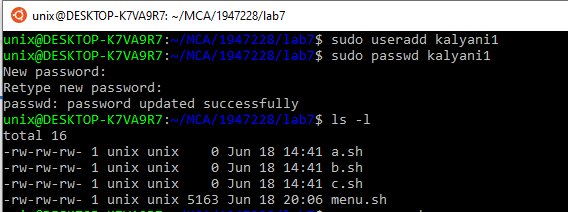
**MCA372 – UNIX Programming**

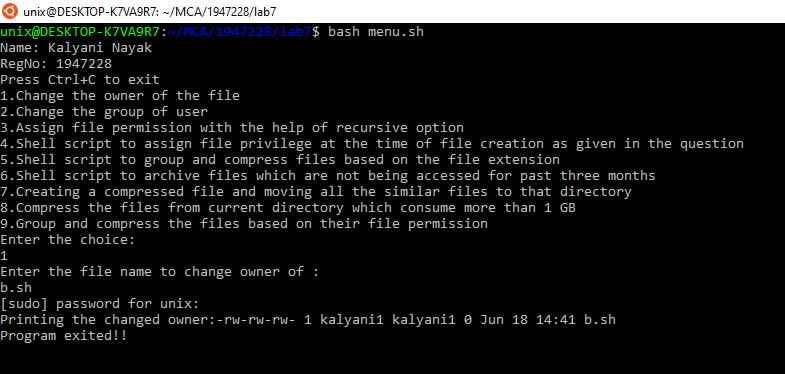
**Task for Lab 6 – 18.06.2020**

**File Permission and Compression**

**Write a MENU DRIVEN Shell Script to demonstrate the following:**

1. Demonstrate the commands to change the ownership of a file.

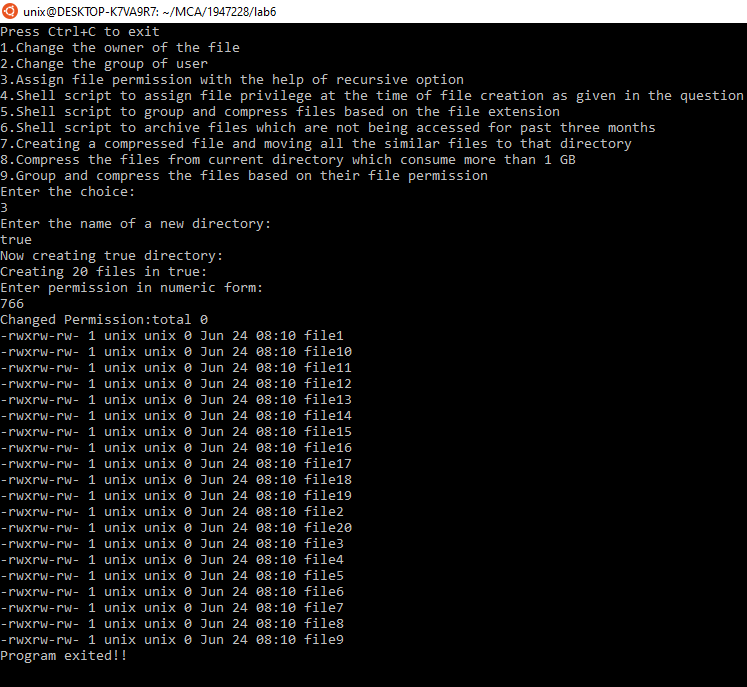




1. Demonstrate the commands to change the group of user.



1. Demonstrate the recursive option to assign file permission.



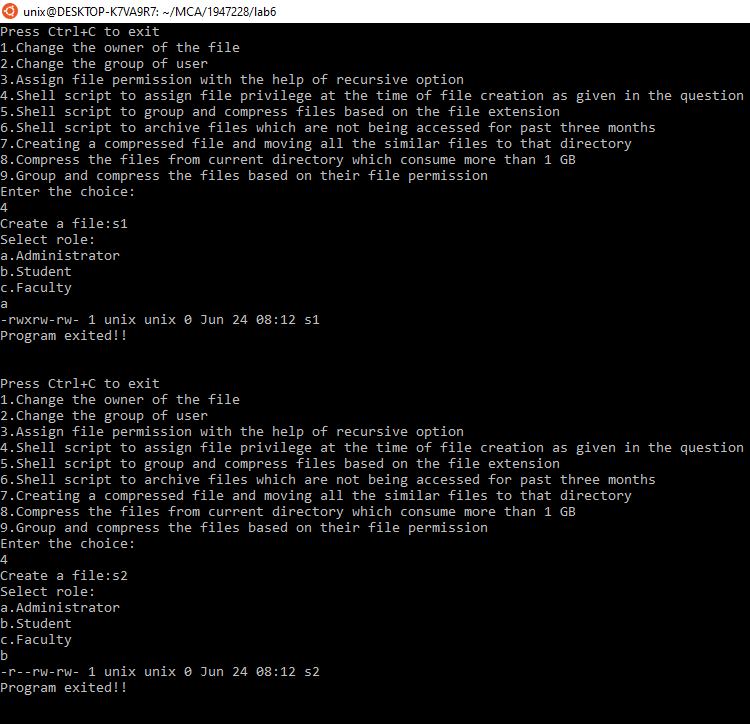
1. Create a shell script (Permission.sh) to assign the file privileges at the time of creating a file based on the Roles as mentioned below. (Use switch case)

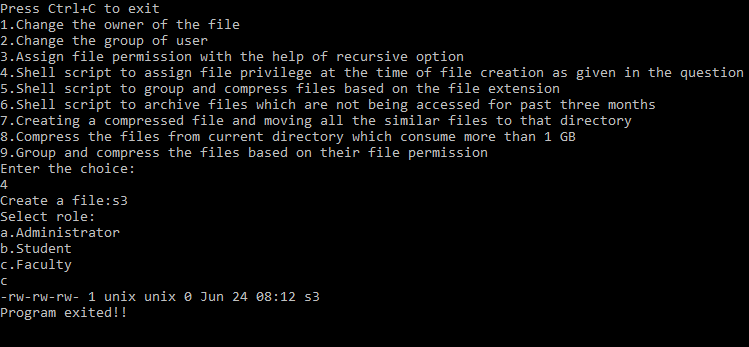
ROLE FILE PERMISSION

Administrator R W X

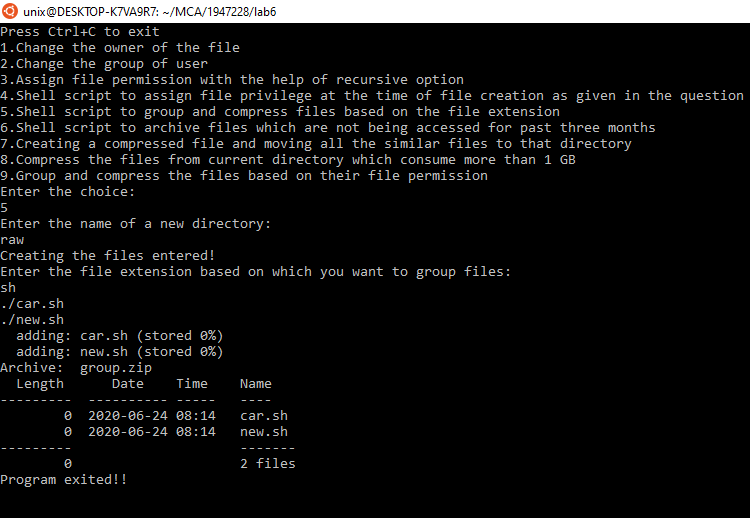
Student R – –

Faculty R W –

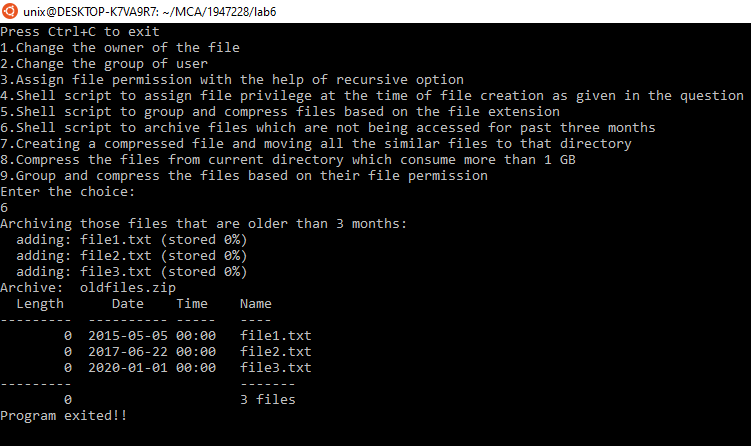




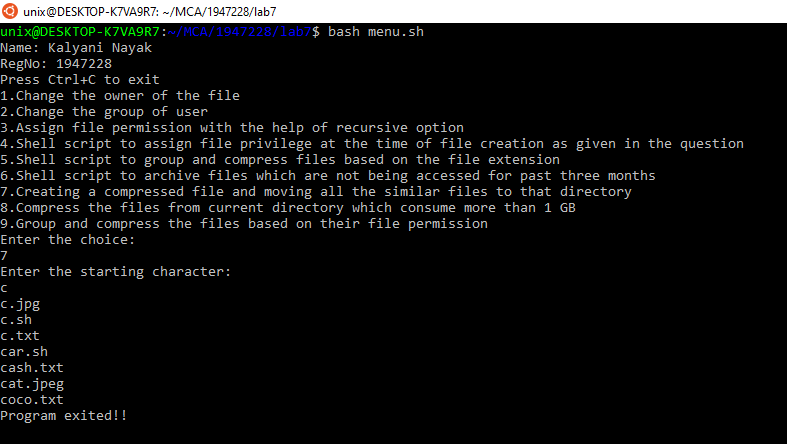
1. Write a shell script to group and compress the file based on their file extension.



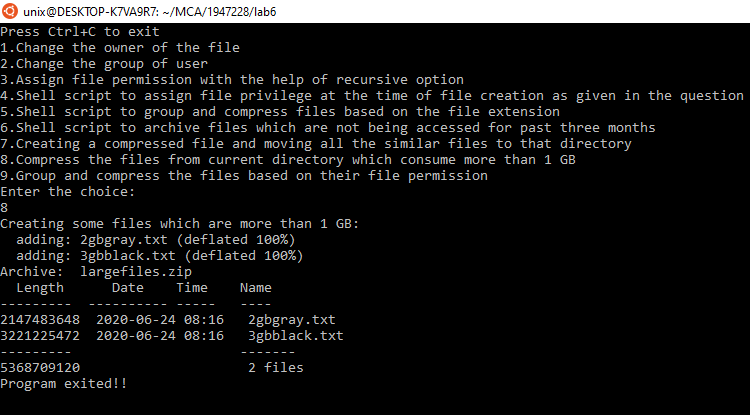
1. Write a shell script to archive the files which are not accessed for past three months.



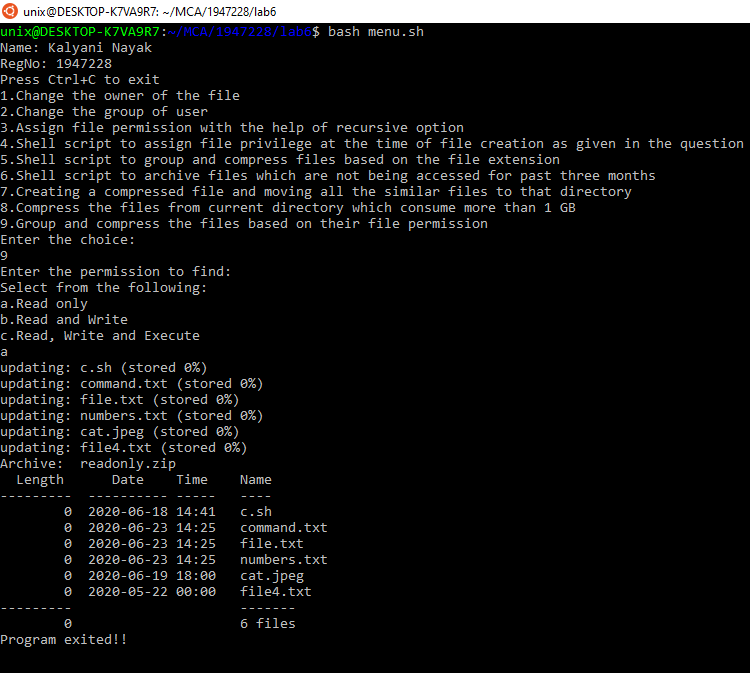
1. Create a compressed file called Collection.tar and move all the files starting with a specific character to the directory Collection.tar

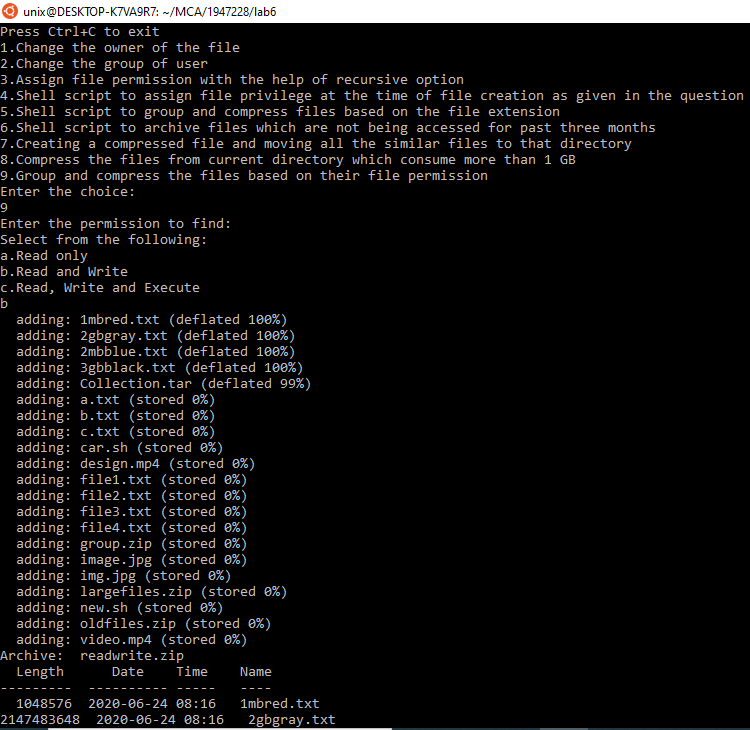


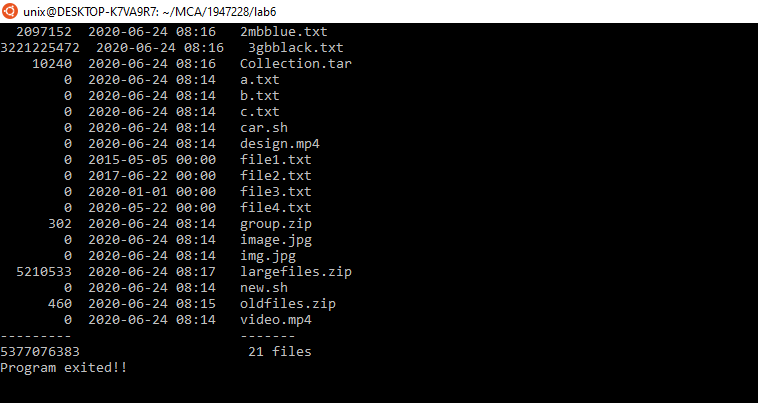
1. Compress the files from the current directory which consume more than 1GB

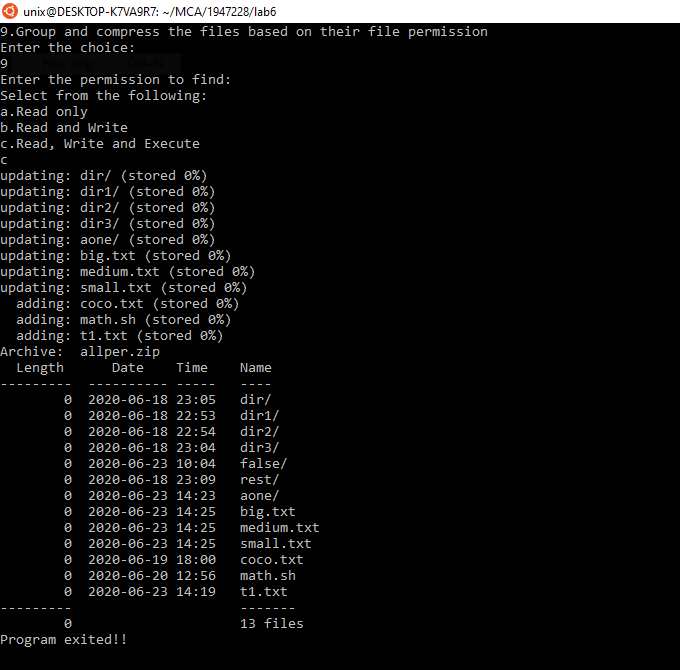


9. Group and compress the files based on their file permission.(For example compress the file with ‘read’ only/’read&write’/’read,write&execute’)









CODE:

|  |
| --- |
| echo "Name:Kalyani Nayak" |
|  | echo "RegNo: 1947228" |
|  |  |
|  | while true |
|  | do |
|  | echo "Press Ctrl+C to exit" |
|  |  |
|  | echo "1.Change the owner of the file" |
|  | echo "2.Change the group of user" |
|  | echo "3.Assign file permission with the help of recursive option" |
|  | echo "4.Shell script to assign file privilege at the time of file creation as given in the question" |
|  | echo "5.Shell script to group and compress files based on the file extension" |
|  | echo "6.Shell script to archive files which are not being accessed for past three months" |
|  | echo "7.Creating a compressed file and moving all the similar files to that directory" |
|  | echo "8.Compress the files from current directory which consume more than 1 GB" |
|  | echo "9.Group and compress the files based on their file permission" |
|  | echo "Enter the choice:" |
|  | read ch |
|  | case $ch in |
|  | 1) |
|  | echo "Enter the file name to change owner of :" |
|  | read file |
|  | sudo chown kalyani1:kalyani1 $file |
|  | echo -n "Printing the changed owner:" |
|  | ls -l $file |
|  | ;; |
|  | 2) |
|  | echo -n "Enter the name of a group:" |
|  | read g\_name |
|  | sudo groupadd $g\_name |
|  | echo -n "Enter the username:" |
|  | read user |
|  | sudo usermod -a -G $g\_name $user |
|  | echo "Group $user is a part of:" |
|  | groups $user |
|  | ;; |
|  | 3) |
|  | echo "Enter the name of a new directory:" |
|  | read dname |
|  | echo "Now creating $dname directory:" |
|  | mkdir $dname |
|  | echo "Creating 20 files in $dname:" |
|  | touch $dname/file{1..20} |
|  | echo "Enter permission in numeric form:" |
|  | read per |
|  | chmod -R $per $dname |
|  | echo -n "Changed Permission:" |
|  | ls -l $dname |
|  | ;; |
|  | 4) |
|  | echo -n "Create a file:" |
|  | read file |
|  | touch $file |
|  | echo "Select role:" echo "a.Administrator" echo "b.Student" |
|  | echo "c.Faculty" |
|  | read role |
|  | case $role in |
|  | "a") |
|  | chmod u=rwx $file |
|  | ls -l $file |
|  | ;; |
|  | "b") |
|  | chmod u=r $file |
|  | ls -l $file |
|  | ;; |
|  | "c") |
|  | chmod u=rw $file |
|  | ls -l $file |
|  | ;; |
|  | esac |
|  | ;; |
|  | 5) |
|  | echo "Enter the name of a new directory:" |
|  | read dname |
|  | mkdir $dname |
|  | cd $dname |
|  | touch a.txt b.txt c.txt video.mp4 image.jpg img.jpg design.mp4 car.sh new.sh |
|  | echo "Creating the files entered!" |
|  | echo "Enter the file extension based on which you want to group files:" |
|  | read ext |
|  | find . -name "\*.$ext" |
|  | zip group.zip \*.$ext |
|  | unzip -l group.zip |
|  | ;; |
|  | 6) |
|  | echo "Archiving those files that are older than 3 months:" |
|  | touch -d 20150505 file1.txt |
|  | touch -d 20170622 file2.txt |
|  | touch -d 20200101 file3.txt |
|  | touch -d 20200522 file4.txt |
|  | find . -mtime +90 | xargs zip oldfiles.zip |
|  | unzip -l oldfiles.zip |
|  | ;; |
|  | 7) |
|  | echo "Enter the starting character:" |
|  | read beg |
|  | tar -cvf Collection.tar $beg\* |
|  | ;; |
|  | 8) |
|  | echo "Creating some files which are more than 1 GB:" |
|  | truncate -s 1M 1mbred.txt |
|  | truncate -s 2M 2mbblue.txt |
|  | truncate -s 2G 2gbgray.txt |
|  | truncate -s 3G 3gbblack.txt |
|  | find -size +1G | xargs zip largefiles.zip |
|  | unzip -l largefiles.zip |
|  | ;; |
|  | 9) |
|  | echo "Enter the permission to find:" |
|  | echo "Select from the following:" |
|  | echo "a.Read only" |
|  | echo "b.Read and Write" |
|  | echo "c.Read, Write and Execute" |
|  | read type |
|  | case $type in |
|  | "a") |
|  | find -perm 444 | xargs zip readonly.zip |
|  | unzip -l readonly.zip |
|  | ;; |
|  | "b") |
|  | find -perm 666 | xargs zip readwrite.zip |
|  | unzip -l readwrite.zip |
|  | ;; |
|  | "c") |
|  | find -perm 777 | xargs zip allper.zip |
|  | unzip -l allper.zip |
|  | ;; |
|  | "\*") |
|  | echo "Invalid input!!" |
|  | ;; |
|  | esac |
|  | ;; |
|  | \*) |
|  | echo "Wrong input..Try again!!!!" |
|  | ;; |
|  | esac |
|  | echo "Program exited!!" |
|  | echo |
|  | echo |
|  | done |