***Basic Commands:***

Cd : Change directory [Open a Directory/Folder in Linux]

Cd .. : Back to previous folder

Ls -a : Display all files and directories

Ls -l : Display all files with information

Ls -al : Display files with permissions

Mkdir [filename] : To create a Directory[Folder]

Su root : switch user to root/administrator

***File creation commands:***

1. Touch [ Filename ] : to create a fle instantly [You cannot add content by doing this]
2. Cat > [Filename] : to create a file and add content in file and press CTRL+D to save. To view content of any file use *Cat [Filename]*
3. Vi [Filename]: create a file with Vi editor.

**How to perform your worksheet:**

* Open your ubuntu.
* Open terminal
* Type *ls -a* to display all files and folder.
* To go to Desktop use *cd Desktop*.
* Now, create a file for bash extension is .sh
* Create with touch command *touch project.sh*
* Now, check its permissions via *ls -al*. It won’t have executable permission which is denoted by x, r for read and w for write.
* To give it executable permission, use *chmod +x project.sh*
* Now, open this file by double click on file on desktop.
* First, we have to give path of bash to file given by *#! /bin/bash*
* Echo is like Print of python you can print anything using echo like echo ”Shika”. It will print Shika.

**Code to perform the task:**

* Open Linux and open terminal and use cd Desktop to go to Desktop.
* Create a file using touch newfile.sh
* Use chmod +x newfile.sh to grant permission for execution.
* Paste both commands to install dialog in linux.

sudo apt-get update

sudo apt-get install dialog

* Double click to open your file and paste the code below.
* Switch to terminal and use ./newfile.sh to execute this file.

#Path for bash

#!/bin/bash

#Function to create date and time

datetime()

{

   dialog --title "System date and Time" --infobox "Date is `date`" 3 40

   #Date will display Time and Date of the system

   # 3 - Height of dialog box

   # 4 - Width of dialog box

read

return

}

#Function to display calender

calender()

{

   cal > menuchoice.temp.$$

   dialog --title "My Calender" --infobox "`cat menuchoice.temp.$$`" 9 25

   #Calender will be stored in a new file named menuchoice

   # 9 and 25 are the height and width of dialog

   read

   rm -f menuchoice.temp.$$

   #After displaying calender, Removing menuchoice file

   return

}

delete()

{

 dialog --title "Delete file"\

 --inputbox "Enter directory path (Enter for Current Directory)"\

 10 40  2>/tmp/dirip.$$

 rtval=$?

 case $rtval in

     1) rm -f /tmp/dirip.$$ ; return ;;

     255) rm -f /tmp/dirip.$$ ; return ;;

 esac

 mfile=`cat /tmp/dirip.$$`

 if [ -z $mfile ]

 then

     mfile=`pwd`/\*

 else

     grep "\*" /tmp/dirip.$$

     if [ $? -eq 1 ]

     then

    mfile=$mfile/\*

     fi

 fi

 for i in $mfile

 do

    if [ -f $i ]

    then

    echo "$i Delete?" >> /tmp/finallist.$$

    fi

 done

 dialog  --title "Select File to Delete"\

 --menu "Use [Up][Down] to move, [Enter] to select file"\

 20 60 12 `cat /tmp/finallist.$$` 2>/tmp/file2delete.tmp.$$

 rtval=$?

 file2erase=`cat /tmp/file2delete.tmp.$$`

 case $rtval in

     0) dialog --title "Are you sure"\

      --yesno "\n\nDo you want to delete : $file2erase " 10 60

        if [ $? -eq 0 ] ; then

      rm -f  $file2erase

         if [ $? -eq 0 ] ; then

            dialog

        --title "Information: Delete Command" --infobox "File: $file2erase is Sucessfully deleted,Press a key" 5 60

        read

       else

        dialog

        --title "Error: Delete Command" --infobox "Error deleting File: $file2erase, Press a key" 5 60

            read

           fi

    else

      dialog

      --title "Information: Delete Command" --infobox "File: $file2erase is not deleted, Action is canceled, Press a key" 5 60

      read

    fi

     ;;

    1)  rm -f /tmp/dirip.$$ ; rm -f /tmp/finallist.$$ ;

        rm -f /tmp/file2delete.tmp.$$; return;;

    255) rm -f /tmp/dirip.$$ ;  rm -f /tmp/finallist.$$ ;

         rm -f /tmp/file2delete.tmp.$$; return;;

esac

 rm -f /tmp/dirip.$$

 rm -f /tmp/finallist.$$

 rm -f /tmp/file2delete.tmp.$$

 return

}

# creating a menu

echo "SELECT YOUR CHOICE";

echo "1. Date/Time"

echo "2. Calender"

echo "3. Delete"

echo "4. Exit"

echo -n "Enter your menu choice [1-4]: "

# Running a forever loop using while statement

# This loop will run untill user select the exit option.

while :

do

# reading choice

read choice

case $choice in

  1)  datetime ;;

  2)  calender;;

  3)  delete;;

  4)  echo "Quitting ..."

      exit;;

# Default Choice

  \*) echo "invalid option";;

esac

  echo -n "Enter your menu choice [1-4]: "

done

**Your code for display all info of system:**

To display value of variable in echo use ($[var\_name])

CPU information is stored in */proc/cpuinfo* to view this file we use cat [filename]

Memory Information is stored in */proc/meminfo*

*Lsblk* command used to display all partition of hard disk.

Mounted files stored in */proc/mounts*

#!/bin/bash  
OSTYPE = `OSTYPE`  
  
echo "SELECT Your Choice";  
echo "1. Your operating system type"  
echo "2. Computer cpu information"  
echo "3. Memory information"  
echo "4. Hard disk information"  
echo "5. File system (Mounted)"  
echo "6. Exit"  
echo -n "Enter your menu choice [1-4]: "  
  
while :  
do  
read choice  
case $choice in  
 1) echo "Your Operating system is ($OSTYPE)" ;;  
 2) echo "CPU information:"  
 cat /proc/cpuinfo ;;  
 3) echo "Memory information:"  
 cat /proc/meminfo ;;  
 4) echo "Hard Disk Information:"  
 lsblk;;  
 5) echo "Mounted Files Information:"  
 cat /proc/mounts;;  
 6) echo "Quitting ..."  
 exit;;  
 # Default Choice  
 \*) echo "invalid option";;  
  
esac  
 echo -n "Enter your menu choice [1-6]: "  
done