1. Write a shell script program to generate multiplication table

Ans:

2. Write a Shell program to find the sum of square of individual digits of a number. Eg sum of square

of individual digits of 124 is 21

Ans:

## Shell script for finding greatest of two numbers

#shell script to find the greatest of two numbers

echo "Enter Num1"

read num1

echo "Enter Num2"

read num2

**if** [ $num1 -gt $num2 ]

**then**

echo $num1

**else**

echo $num2

**fi**

## Sum of all digits - Shell Script

echo "Enter a number"

read num

sum=0

**while** [ $num -gt 0 ]

**do**

mod=**$((**num % **10))** #It will split each digits

sum=**$((**sum + mod**))** #Add each digit to sum

num=**$((**num / **10))** #divide num by 10.

**done**

echo $sum

## Shell script to print sum of all digit using expr

#sum of all digits - shell script

echo "Enter a number"

read num

sum=0

**while** [ $num -gt 0 ]

**do**

mod=`expr $num % 10` #It will split each digits

sum=`expr $sum + $mod` #Add each digit to sum

num=`expr $num / 10` #divide num by 10.

**done**

echo $sum

#shell script for largest of n numbers

echo "Enter Size(N)"

read N

i=1

max=0

echo "Enter Numbers"

**while** [ $i -le $N ]

**do**

read num

**if** [ $i -eq 1 ] #set first number as max

**then**

max=$num

**else** #from number 2 update max if the num > max.

**if** [ $num -gt $max ]

**then**

max=$num

**fi**

**fi**

i=**$((**i + **1))** #increment i by 1

**done**

echo $max

**Code for Write a shell script to find the average of the numbers entered in command line in Unix / Linux / Ubuntu**

sum=0

for i in $\*

do

sum=`expr $sum + $i`

done

avg=`expr $sum / $n`

echo Average=$avg

**Code for Shell Script to make a menu driven calculator using case in Unix / Linux / Ubuntu**

clear

sum=0

i="y"

echo " Enter one no."

read n1

echo "Enter second no."

read n2

while [ $i = "y" ]

do

echo "1.Addition"

echo "2.Subtraction"

echo "3.Multiplication"

echo "4.Division"

echo "Enter your choice"

read ch

case $ch in

1)sum=`expr $n1 + $n2`

echo "Sum ="$sum;;

2)sum=`expr $n1 - $n2`

echo "Sub = "$sum;;

3)sum=`expr $n1 \\* $n2`

echo "Mul = "$sum;;

4)sum=`expr $n1 / $n2`

echo "Div = "$sum;;

\*)echo "Invalid choice";;

esac

echo "Do u want to continue ?"

read i

if [ $i != "y" ]

then

exit

fi

done

OUTPUT

\*\*\*\*\*\*\*\*\*\*\*

[04mca58@LINTEL 04mca58]$ sh calculator.sh

Enter any no.

121

Enter one no.

21

Enter second no.

58

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your choice

1

Sum =79

Do u want to continue ?

y

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your choice

2

Sub = -37

Do u want to continue ?

y

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your choice

3

Mul = 1218

Do u want to continue ?

y

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your choice

4

Div = 0

Do u want to continue ?

n

**Code for Write a shell program to count the characters, count the lines and the words in a particular file in Unix / Linux / Ubuntu**

echo Enter the filename

read file

w=`cat $file | wc -w`

c=`cat $file | wc -c`

l=`grep -c "." $file`

echo Number of characters in $file is $c

echo Number of words in $file is $w

echo Number of lines in $file is $l

**Code for Write a shell program to convert all the contents into the uppercase in a particular file in Unix / Linux / Ubuntu**

echo Enter the filename

read filename

echo Contents of $filename before converting to uppercase

echo ----------------------------------------------------

cat $filename

echo ----------------------------------------------------

echo Contents of $filename after converting to uppercase

echo ---------------------------------------------------

tr '[a-z]''[A-Z]' < $filename

echo ---------------------------------------------------

**Code for Write a shell script to find the average of the numbers entered in command line in Unix / Linux / Ubuntu**

sum=0

for i in $\*

do

sum=`expr $sum + $i`

done

avg=`expr $sum / $n`

echo Average=$avg

**Code for Write a shell script to find the sum, the average and the product of the four integers entered in Unix / Linux / Ubuntu**

echo Enter four integers with space between

read a b c d

sum=`expr $a + $b + $c + $d`

avg=`expr $sum / 4`

dec=`expr $sum % 4`

dec=`expr \( $dec \\* 1000 \) / 4`

product=`expr $a \\* $b \\* $c \\* $d`

echo Sum=$sum

echo Average=$avg.$dec

echo Product=$product

**Code for Write a shell script to find how many terminals has this user logged in in Unix / Linux / Ubuntu**

if [ $# -eq 1 ]

then

who>user.lst

echo "$1 User is logeed at "

grep -c $1 user.lst

else

echo "Pls enter User Name"

fi

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

OUTPUT:

$ sh15 testuser

testuser User is logeed at 1

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Code for Write a shell script to reverse a number supplied by a user in Unix / Linux / Ubuntu**

if [ $# -eq 1 ]

then

if [ $1 -gt 0 ]

then

num=$1

sumi=0

while [ $num -ne 0 ]

do

lnum=`expr $num % 10`

sumi=`expr $sumi \* 10 + $lnum`

num=`expr $num \/ 10`

done

echo "Reverse of digits is $sumi of $1"else

echo " Number is less than 0"

fi

else

echo "Insert only one parameter "

fi

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

output:

$ sh1 23456

Reverse of digits is 65432 of 23456

**Code for Write a script to find the value of one number raised to the power of another in Unix / Linux / Ubuntu**

echo "Input number"

read no

echo "Input power"

read power

counter=0

ans=1

while [ $power -ne $counter ]

do

ans=`expr $ans \\* $no`

counter=`expr $counter + 1`

done

echo "$no power of $power is $ans"

**Code for Write a shell program to find the gcd for the 2 given numbers in Unix / Linux / Ubuntu**

echo Enter two numbers with space in between

read a b

m=$a

if [ $b -lt $m ]

then

m=$b

fi

while [ $m -ne 0 ]

do

x=`expr $a % $m`

y=`expr $b % $m`

if [ $x -eq 0 -a $y -eq 0 ]

then

echo gcd of $a and $b is $m

break

fi

m=`expr $m - 1`

done

**Write a shell script, which will receive any number of filenames as arguments .The shell script should check whether such files already exist. If they do, then it should be reported. If these files do not exist then check if a subdirectory called mydir exists in the current directory .If it doesn’t exist then it should be created and in it files supplied as arguments should get created .If mydir already exists then it should be reported along with the number of files that are currently present in myir.**

**Code for Write a shell script, which will receive any number of filenames as arguments .The shell script should check whether such files already exist. in Unix / Linux / Ubuntu**

while [ $# -ne 0 ]

doif [ -e $1 ]

then

echo "File already exist"elseif [ -d mydir ]

then

cd mydir

i=`ls -f | grep -c /`

c=`ls -1 | wc -l`

echo "Total File in current dir : " `expr $c - $i`

else

mkdir mydir

cd mydir

touch $1

fi

cd ..

fi

shift

done

**Write a shell script, which will receive any number of filenames as arguments .The shell script should check whether such files already exist. If they do, then it should be reported. If these files do not exist then check if a subdirectory called mydir exists in the current directory .If it doesn't exist then itshould be created and in it files supplied as arguments should get created .If mydir already exists then it should be reported along with the number of files that are currently present in myir.**

**Code for Write a shell script, which will receive any number of filenames as arguments .The shell script should check whether such files already exist. in Unix / Linux / Ubuntu**

for i in $\*

doif [ -f $i ]

then

echo "File $i is already exist."elseif [ -d mydir ]

then

cnt=0

cd mydir

for j in `ls`

doif [ -f $j ]

then

cnt=`expr $cnt + 1`

fi

done

echo "Mydir already exist...contains $cnt files"else

mkdir mydir

cd mydir

> $i

fi

fi

done

**Write a shell script to reverse the contents of a file.**

**Code for Write a shell script to reverse the contents of a file in Unix / Linux / Ubuntu**

if [ $# -eq 1 ]

then

if [ -f $1 ]

then

a=`rev $1`

echo "Reverse of $1"

cat $1

echo " is-> $a"else

echo "File does not exist '

fi

else

echo "Please enter file name or path"

fi

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

OUTPUT:

$ sh35 wordfile1

Reverse of

apple

mango

banana

chicko

is-> elppa

ognam

ananab

okcihc

$ sh10 sh9

-rwxrwxrwx 1 root Everyone 262 Dec 7 18:48 sh9

$ sh10 /etc

total 813

-rwxrwxrwx 1 root Everyone 46 Feb 15 1999 crontab

-rwxrwxrwx 1 root Everyone 559 Dec 7 17:19 group

-rwxrwxrwx 1 root Everyone 62464 Feb 15 1999 in.ftpd

**Write a script to count and report the number of entries in each subdirectory mentioned in the path, which is supplied as a command-line argument**

**Posted By:**[Adriane Miller](http://www.dailyfreecode.com/User/adriane-miller-1513.aspx)     **Category:**[Unix / Linux / Ubuntu](http://www.dailyfreecode.com/Tutorial/Easy-Unix__Linux__Ubuntu-40.aspx)     **Views:** 7161

**Write a script to count and report the number of entries present in each subdirectory mentioned in the path, which is supplied as a command-line argument.**

**Code for Write a script to count and report the number of entries in each subdirectory mentioned in the path, which is supplied as a command-line argument in Unix / Linux / Ubuntu**

if [ $# -eq 0 ]

then

echo "Enter path : "

read path

else

path=$1

fi

for dir in `ls -R $path`

doif [ -e $dir ]

then

vcount=`expr $vcount+1`

echo $dir

fi

done

echo "There is $vcount file"

**Write a shell program to add, subtract and multiply the 2 given numbers passed as command line arguments**

**Code for Write a shell program to add, subtract and multiply the 2 given numbers passed as command line arguments in Unix / Linux / Ubuntu**

add=`expr $1 + $2`

sub=`expr $1 - $2`

mul=`expr $1 \\* $2`

echo Addtion of $1 and $2 is $add

echo Subtraction of $2 from $1 is $sub

echo Multiplication of $1 and $2 is $mul

**Write a shell program to add, subtract and multiply the 2 given numbers passed as command line arguments.**

**Code for Write a shell program to add, subtract and multiply the 2 given numbers passed as command line arguments in Unix / Linux / Ubuntu**

add=`expr $1 + $2`

sub=`expr $1 - $2`

mul=`expr $1 \\* $2`

echo Addtion of $1 and $2 is $add

echo Subtraction of $2 from $1 is $sub

echo Multiplication of $1 and $2 is $mul

**Write a menu driven shell script for**

**\* Copy a file (user should specify source and target)**

**\* Remove a file**

**\* Move a file (take source and target)**

**Code for Write a menu driven shell script for Copy a file, Remove a file, Move a file in Unix / Linux / Ubuntu**

clear

echo "Menu "

echo "1. COpy a File "

echo "2. Remove a file "

echo "3. Move a file"

echo "4. Quit"

echo "Enter ur Choice \c"

read Choice

case"$Choice"in

1) echo "Enter File name to copy \c"

read f1

echo "Enter FIle name \c "

read f2

if [ -f $f1 ]

then

cp $f1 $f2

else

echo "$f1 does not exist"

fi

;;

2) echo "Enter the File to be removed "

read r1

if [ -f $r1 ]

then

rm -i $r1

else

echo "$r1 file does not exist "

fi

;;

3)

echo "Enter File name to move \c"

read f1

echo "Enter destination \c "

read f2

if [ -f $f1 ]

then

if [ -d $f2 ]

then

mv $f1 $f2

fi

else

echo "$f1 does not exist"

fi

;;

4)

echo "Exit......."

exit;;

esac

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

OUTPUT:

$ sh38

Menu

1. COpy a File

2. Remove a file

3. Move a file

4. Quit

Enter ur Choice 1

Enter File name to copy r1

Enter FIle name r2

$ sh38

Menu

1. COpy a File

2. Remove a file

3. Move a file

4. Quit

Enter ur Choice 3

Enter File name to move r1

Enter destination r3

$ sh38

Menu

1. COpy a File

2. Remove a file

3. Move a file

4. Quit

Enter ur Choice 2

Enter the File to be removed r1

remove r1? y

**Code for Shell Script to delete the zero sized file using if and for in Unix / Linux / Ubuntu**

clear

echo "Enter any file name: "

read filenm

if [ -e $filenm ]

then

echo $filenm" File exist"if [ -s $filenm ]

then

echo $filenm" File has size > 0"else

rm $filenm

echo $filenm" File is Deleted which has size = 0"

fi

else

echo "File not exist"

fi

OUTPUT

\*\*\*\*\*\*\*\*\*\*\*

[04mca58@LINTEL 04mca58]$ sh size.sh

Enter any file name:

del.sh

del.sh File exist

del.sh File is Deleted which has size = 0

Which expression use the value of the enclosed arithmetic expression?

**a) $(())**

b) $()

c) ${}

d) $[].

Trace the output generated by the echo command where X and Y are variables initialized as following:

$X=”Linux Lab”

$Y=”Evaluation II”

$echo –e “$X \c $Y”

a)Linux Lab Evaluation II **b) Linux Lab**

c)Linux Lab \c Evaluation II d) Evaluation II

What is the output of the following program?

x = 3; y = 5; z = 10;

if [( $x -eq 3 ) -a ( $y -eq 5 -o $z -eq 10 )]

then

echo $x

else

echo $y

fi

a) 1 b) 3

c) 5 d) Error

**WriteaShellprogramtocheckthegivennumberisevenorodd.**

**PROGRAM**

echo“Enteranumber:”readn

if[`expr$n%2`=0]then

echo“Evennumber”

else

echo“Oddnumber”

fi

**2.WriteaShellprogramtocheckthegivennumberanditsreversearesame.**

echo“Enteranumber:”readn

t=$ns=0

while[$n-gt0]do

r=`expr$n%10`s=`expr$r+$s\\*10`n=`expr$n/10`

done

if[$s=$t]then

echo“Thegivennumberanditsreversearesame”

else

echo“Thegivennumberanditsreversearenotsame”

fi

Q. Predict the output

#!/bin/bash

a=10; b=20

c=$((++a))

let a=c+a

echo $a

exit 0

a) 21

**b) 22**

c) program will generate an error message

d) none of the mentioned

Whatis the output of this program?

#!/bin/bash

a=10

b=$(( $a<0?10:$a<100 ))

echo $b

exit 0

a) 10

b) 20

**c) 1**

d) 0

Q. What is the output of this program?

#!/bin/bash

san\_var=10

echo "the value of \"san\_var\" is $san\_var"

exit 0

a) the value of “san\_var” is 10

b) the value of is 10

c) the value of san\_var is $san\_var

d) the value of “san\_var” is $san\_var

Q. If you want to create a permanent alias in Linux then you have to write it in following file

a) .bash\_alias b) .bashshell  
c) .bashrc d) .bash\_profile

**. Write a Shell program to find the sum of cube of individual digits of a number.**

**Eg The sum of cube of individual digits of 124 is 73**

echo “Enter a number:”

read n

t=$n s=0

while [ $n -gt 0 ]

do

r= $expr $n % 10

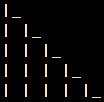
s= $expr $s + $r \\* $r \\* $r

n= $expr $n / 10

done

echo “The sum of cube of individual digits of $t is $s”

**Write a Shell program to print the following pattern**



echo "Climb the steps of success"

for (( i=1; i<=5; i++ ))

do

for (( j=1; j<=i; j++ ))

do

echo -n " |"

done

echo "\_ "

done