OS lab 4

# 1. Write a shell script to accept numbers below 50 and to display the square of each. This should continue as long as the user wishes

# Code:

con=1

while [ $con -eq 1 ]

do

echo "press a natural number less then 50"

echo "Press 0 for exit"

read a

if [ $a -le 50 -a $a -gt 0 ]

then

echo $a\*$a | bc

elif [ $a -gt 50 ]

then

echo "please enter number less then 50"

elif [ $a -lt 0 ]

echo "please enter positive number"

elif [ $a -eq 0 ]

then

con = 0

fi

done

# 2. Write a shell script to check whether the scanned string is found in a file or not. Display appropriate message.

# Code :

echo "Enter a string";

read a;

b= grep $a kashyap.txt;

#kashyap.txt is file name

if [ $? -eq 0 ]

then

echo "word found"

else

echo "word not found"

fi

# 3. Write a shell script to generate Sum of first n number

# Code

echo "Enter n: ";

read n;

ans=`expr \( $n \\* \( $n + 1 \) \) \/ 2`;

echo $ans;

# 4. Write a shell script to check whether the entered number is prime or not.

# Code:

echo "Enter a natural number"

read a

z=`factor $a|wc -w`;

if [ $z -eq 2 ]

then echo "Prime number"

else echo "Not a prime"

fi

# 5. Write a shell script to calculate HRA of employees depending upon their basic.

# Code:

echo "Enter Basic Salary"

read salary

echo "Enter percentage of HRA"

read per

hra=$(( (salary \* per)/100 ))

echo "The HRA is : $hra"

# 6. Write a shell script that greets the user by saying Good Morning, Good Afternoon,and Good Evening according to the system time

# Code:

#!/bin/bash

t=`echo $(date +"%H") `

d=`echo $(date +"%D") `

if [ $t -le 10 -a $t -ge 6 ]

then

echo " Good morning $d"

elif [ $t -gt 10 -a $t -le 16 ]

then

echo " good after noon $d"

elif [ $t -gt 16 -a $t -le 20 ]

then

echo "good evening $d"

elif [ $t -gt 20 -a $t -le 5 ]

then

echo " good night $d"

fi

# 7. Write a shell script, which takes a filename as command line argument, asks the user if he wants to revoke the read, write permissions for the group and others for that particular file. If the answer is “y” then it should do so or else it should abort the operation.

# Code :

loop=1

while [ $loop -eq 1 ]

do

echo "Enter a filename: "

read $1

echo "Permissioons are :"

ls -l $1

echo " Do you want to revoke read and write conditions from the file (y/n)"

read b

if [ "$b" = "y" ]

then chmod -rw echo $1

echo "After revoking"

ls -l $1

echo "Do you wish to continue (y/n):"

read d

if [ "$d" = "y" ]

then loop=1

else loop=0

fi

elif [ "$b" = "n" ]

then echo "Do you wish to continue (y/n):"

read c

if [ "$c" = "y" ]

then loop=1

else loop=0

fi

else echo "none of the above conditions meet"

loop=0

fi

done

# 8. Write a shell script to count number of newline characters in a file.

# Code :

echo "Enter the name of file"

read a

echo "The new-line count is:"

wc -l $a

# 9. Write a shell script to count number of spaces in a file

# Code:

echo enter the filename

read filename

n=`cut -d' ' -f 1- $filename | tr ' ' '\n' | wc -l |cut -d' ' -f1 `

echo $(( n - 1))

# 10. Write a Shell script, which counts the number of words in a file, without taking into consideration the blank space, tab spaces and the newline characters using WC.

# Code:

read file

l=`wc -l $file|cut -d " " -f 1`

echo $l

count=0

coch=0

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

do

n=1

line=`head -$i $file|tail -1`

echo $line

ch=`echo $line|cut -c $n`

echo character is $ch

while [ "$ch" != "" ]

do

if [ "$ch" = " " ]

then

count=`expr $count + 1`

else

coch=`expr $coch + 1`

fi

n=`expr $n + 1`

ch=`echo $line|cut -c $n`

done

done

echo no. of space $count

echo no. of characters $coch