**Program : 11**

Aim **:** Write a script to print all prime numbers from 1 to n.

#!/bin/bash

echo “enter m and n”;

read m n

for a in $(seq $m $n)

do

k=0

for I in $(seq 2 $(expr $a -1))

do

if [ $expr $a % $i)-eq 0 ]

then

k=1

break

fi

done

if [ $k -eq 0 ]

then

echo $a

fi

done

**Output**

user@user:~$ bash prm.sh

enter m and n

1 10

1

2

3

5

7

**Program : 12**

Aim **:** Write a script to generate all combinations of a, b and c.

#!/bin/bash

echo “The combination of a,b,c is”;

for i in {a,b,c}

do

for j in {a,b,c}

do

for k in {a,b,c}

do

echo “$i $j $k”;

done

done

done

**Output**

user@user:~$ bash com.sh

The combination od a,b,c is

a a a

a a b

a a c

a b a

a b b

a b c

a c a

a c b

a c c

b a a

b a b

b a c

b b a

b b b

b b c

b c a

b c b

b c c

c a a

c a b

c a c

c b a

c b b

c b c

c c a

c c b

c c c

**Program : 13**

Aim **:** Write a shell script to sum up the following series 1/1! + 2/2! + 3/3! + ....

#!/bin/bash

echo “Enter the limit”;

read n

sum=0

for((i=1;i<=$n;i++))

do

fact=1

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

do

fact=`expr $fact \\* $j`

done

sum=$(echo “scale=3;$sum + $i / $fact”|bc)

done

echo $sum

**Output**

user@user:~$ bash series.sh

Enter the limit:

7

2.716

**Program : 14**

Aim **:** Write a script to read a year and to decide whether it is a leap year or not. If no year is supplied then the current year is assumed.

#!/bin/bash

if [ $# -eq 1 ]; then

year=$1

else

year=$(date +”%Y”)

fi

if (( year % 4 == 0 && year % 100 != 0 )) || (( year % 400 == 0 )); then echo

“$year is a leap year”;

else

echo “$year is not a leap year”;

fi

**Output**

user@user:~$ bash year.sh

2023 is not a leap year

user@user:~$ bash year.sh 2000

2000 is a leap year

**Program : 15**

Aim **:** Shell script to perform operations like display, list, make directory and copy, rename, delete, edit file.

#!/bin/bash

clear

i=”y”;

while [ $i = “y” ]

do

echo “1.display”;

echo “2.list”;

echo “3.make directory”;

echo “4.copy”;

echo “5.rename”;

echo “6.delete”;

echo “7.edit”;

echo “Enter your choice :”;

read ch

case $ch in

1)pwd;;

2)ls;;

3)echo enter the name of the directory:

read dr

mkdir $dr

echo directory $dr created;;

4)touch >file1 this is first textfile touch>file2 this is second text file cp file1

new\_folder1

echo copied successfully;;

5)mv file1 file3

echo file moving successfully;;

6)rm file2

echo file removed successfully;;

7)touch>file3 this is edited textfile

echo file edited successfully;;

\*)echo “invalid choice”; ;;

esac

echo “do you want to continue?”

read i

if [ $i != “y” ]

then

exit

fi

done

**Output**

user@user:~$ bash dir.sh

1.display

2.list

3.make directory

4.copy

5.rename

6.delete

7.edit

Enter your choice:

1

/home/user

do you want to continue?

y

1.display

2.list

3.make directory

4.copy

5.rename

6.delete

7.edit

Enter your choice:

3

enter the name of the directory:

user1

directory user1 created

do you want to continue? y

1.display

2.list

3.make directory

4.copy

5.rename

6.delete

7.edit

Enter your choice:

4

copied successfully

do you want to continue? y

1.display

2.list

3.make directory

4.copy

5.rename

6.delete

7.edit

Enter your choice:

5

file moving successfully

do you want to continue? y

1.display

2.list

3.make directory

4.copy

5.rename

6.delete

7.edit

Enter your choice:

6

file removed successfully

do you want to continue? y

1.display

2.list

3.make directory

4.copy

5.rename

6.delete

7.edit

Enter your choice:

7

file edited successfully

do you want to continue? n

**Program :16**

Aim **:** Write a menu driven program to display the following options.

➢ Contents of /etc/passwd

➢ List of output of ‘who’

➢ Present working directory

➢ Exit

#!/bin/bash

while true; do

echo “Select an option:”;

echo “1. Display contents of /etc/passwd”;

echo “2. List output of ‘who’”;

echo “3. Display present working directory”;

echo “4. Exit”;

read choice

case $choice in

1)

cat /etc/passwd

;;

2)

who

;;

3)

pwd

;;

4)

exit 0

;;

\*)

echo “Invalid choice. Please enter a number from 1 to 4.” ;;

esac

done

**Output**

user@user:~$ bash direc.sh

Select an option:

1. Display contents of /etc/passwd

2. List output of ‘who’;

3. Display present working directory

4. Exit

2

user tty2 2023-02-27 18:56 (tty2)

Select an option:

1. Display contents of /etc/passwd

2. List output of ‘who’;

3. Display present working directory

4. Exit

3

/home/user

Select an option:

1. Display contents of /etc/passwd

2. List output of ‘who’;

3. Display present working directory

4. Exit

**Program : 17**

Aim **:** Write a shell script to find how many terminals this user logged in.

#!/bin/bash

username=$(whoami)

num\_terminals=$(who | awk -v user=”$username” ‘$1 == user {print $2}’ | sort - u |

wc -l)

echo “User $username logged in on $num\_terminals”;

**Output**

user@user:~$ bash term.sh

user logged in on 1