EXP NO : 5 Date : 04/04/2019

SHELL PROGRAMMING - Set 2 – Part 2

Aim :

To practice various shell scripting programs

Question 6 :

Write a shell script that will take an input file and remove identical lines.

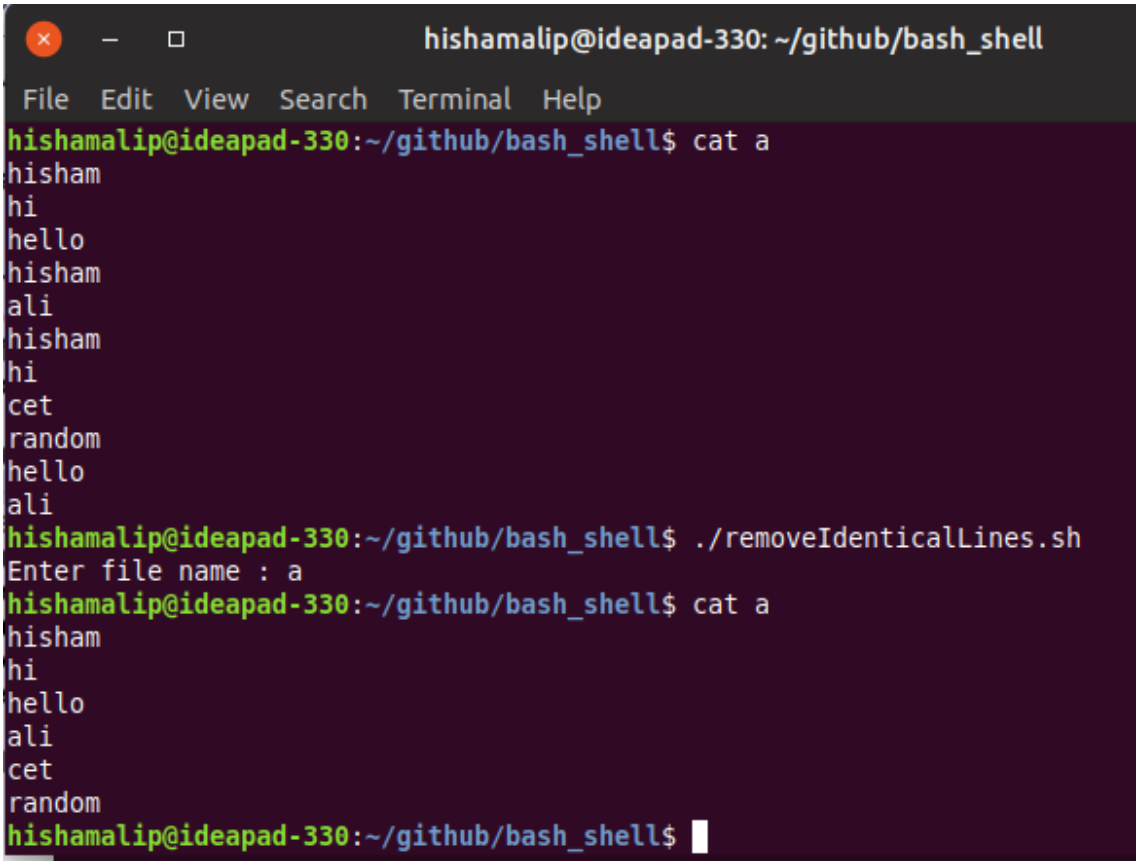
Algorithm :

1 Read file
2 Remove identical lines and save result into a temporary file.
3 Copy temporary file to original file
4 Remove temporary file

Program :

```
fread -p "Enter file name : " file1
if [ ! -f $file1 ]; then
   echo "File not found!"
else
      awk '!seen[$0]++' $file1 > temp
      cp templog $file1
      rm temp
fi
```

Output :



Question 7 :

Write a shell script that displays a list of all the files in the current directory to which the user has read, write and execute permissions.

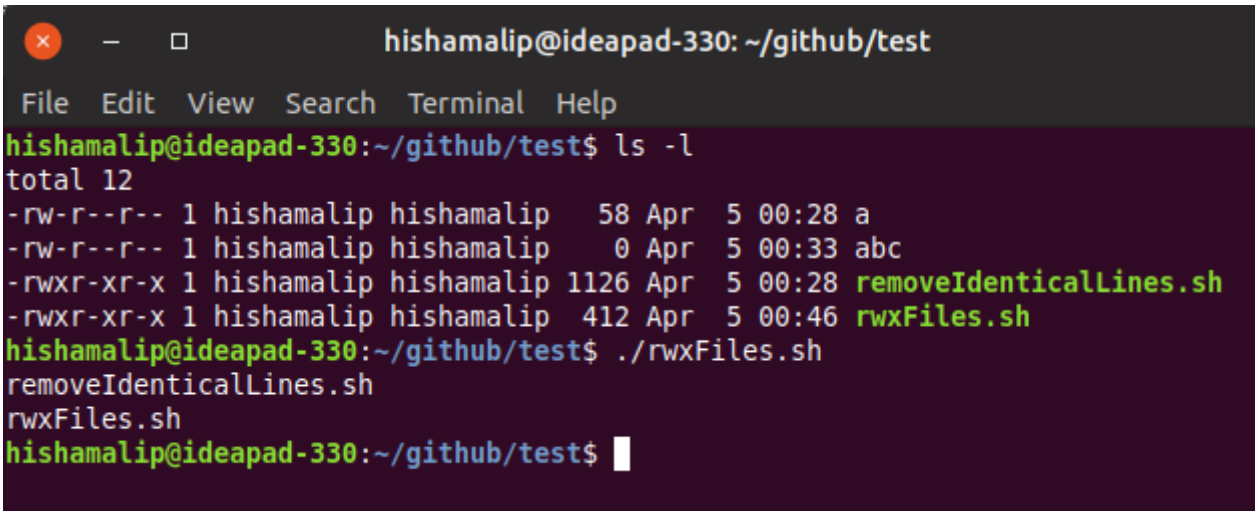
Algorithm :

1 Save permission of all files to a temporary file
2 while read i from temporary file
3 copy properties of files into variable x
4 if x is file with read, write and execute permission
5 set flag = 1
6 print file name
7 end if
8 end while
9 if flag != 1
10 print “No files with read, write and execution permission”
11 end if

Program :

```
ls -l > temp
while read i ; do
	x="$(echo $i | cut -b 1-4)"
	if [ $x = "-rwx" ] ; then
		flag=1;
		echo $i | awk {'print $9'}
	fi
done < temp
rm temp
if [ "$flag" != 1 ] ; then
	echo "No files with read,write and execute permission"
fi
```

Output :



Question 8 :

Write a shell script that folds long lines into 40 columns. Thus any line that exceeds 40 characters must be broken after 40th, a '\' is to be appended as the indication of folding and the processing is to be continued with the residue. The input is to be through a text file created by the user.

Algorithm :

1 Read file
2 n = total no. of lines in the file
3 set i = 1
4 while i <= n
5 read 1st line of file to variable named line
6 length = length of the line
7 while length >= 40
8 x = first 40 charchters of line
9 print x/
10 y = charchters of line from 41th column
11 line = y
12 length = length of line
13 end while
14 print line
15 i++
15 end while

Program :

```
read -p "Enter file name : " file
n=$(wc -l $file | awk '{print $1}')
i=1
while [ $i -le $n ] ; do
	line=$(sed -n "$i p" $file)
	length=$(echo $line | awk '{print length}')
	while [ $length -ge 40 ] ; do
		x=$(echo $line | cut -b 1-40)
		echo "$x\\"
		y=$(echo $line | cut -b 40-)
		line=$y
		length=$(echo $line | awk '{print length}')
	done
	echo $line
	i=$(expr $i + 1)
done
```

Output :

```
hishamalip@ideapad-330:~/github/test$ cat a
Ram and Sham were in a fight. Both of them said they owned the same tree.
They went up to Birbal and asked him to decide the matter, once and for all. Who was the true owner of the tree?
hishamalip@ideapad-330:~/github/test$ ./b.sh
Enter file name : a
Ram and Sham were in a fight. Both of th\
hem said they owned the same tree.
They went up to Birbal and asked him to \
decide the matter, once and for all. Who\
o was the true owner of the tree?
hishamalip@ideapad-330:~/github/test$
```

Question 9 :

Write a shell script to delete all lines containing a specific word in one or more file supplied as argument to it.

Algorithm :

1 Read file names from arguments
2 Read the word to delete
3 for file name in arguments
4 delete line with specific word and redirect output to temporary file
5 move temporary file to origial file
6 end for

Program :

```
if [ $# -eq 0 ] ; then
	echo "Please enter one or more filenames as argument"
else
	read -p "Enter the word : " word
	for file in $* ; do
		sed "/$word/d" $file > temp
		mv temp $file
done
	echo "Lines with word $word is deleted from all files"
fi
```

Output :

```
hishamalip@ideapad-330:~/github/test$ cat a
college of engineering
hi
hello
ali
hishamalip@ideapad-330:~/github/test$ cat b
ali
college of engineering
apple
bat
hishamalip@ideapad-330:~/github/test$ cat c
ali
car
dog
cet
college of engineering
hishamalip@ideapad-330:~/github/test$ ./delete_specific_lines.sh
Please enter one or more filenames as argument
hishamalip@ideapad-330:~/github/test$ ./delete_specific_lines.sh a b c
Enter the word : engineering
Lines with word engineering is deleted from all files
hishamalip@ideapad-330:~/github/test$ cat a
hi
hello
ali
hishamalip@ideapad-330:~/github/test$ cat b
ali
apple
bat
hishamalip@ideapad-330:~/github/test$ cat c
ali
car
dog
cet
hishamalip@ideapad-330:~/github/test$
```

Result :

Practiced various shell scripting programs and output is verified.