SHELL PROGRAMMING - Set 2 – Part 2

Aim :
>   To practice various shell scripting programs

Question 6 :
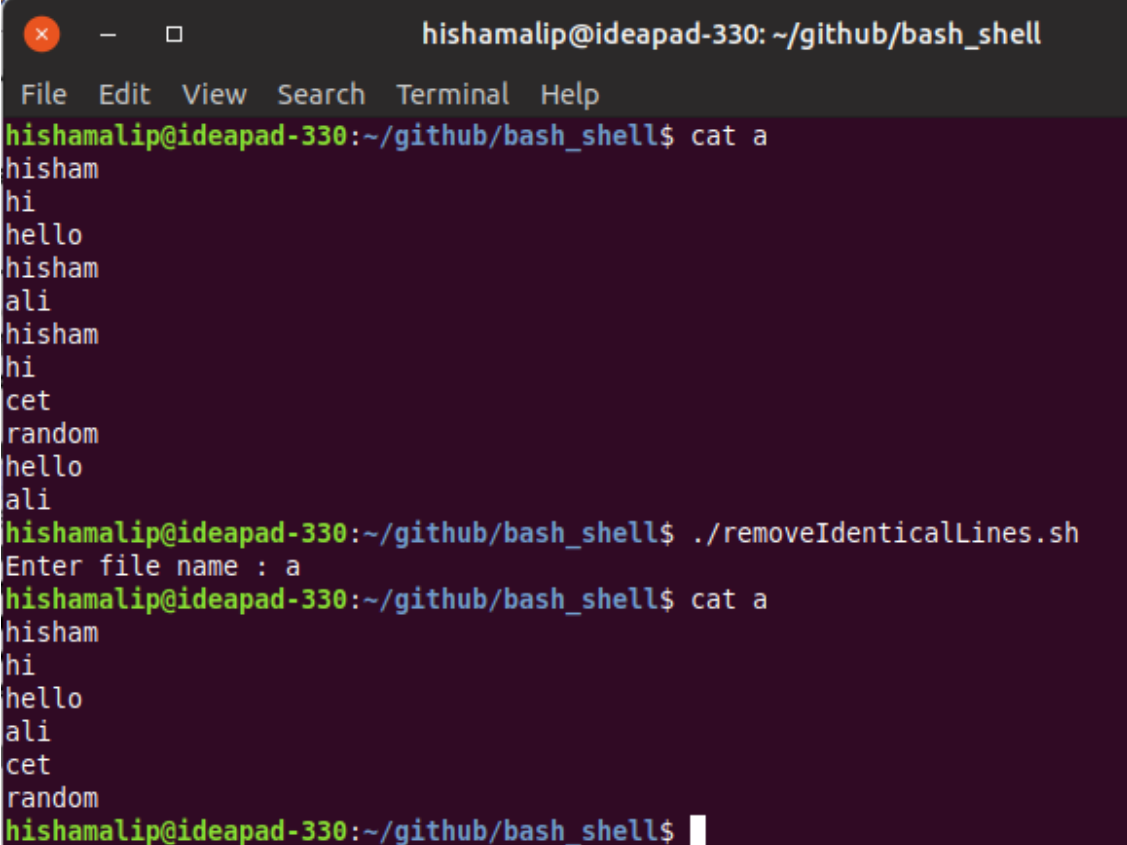>   Write a shell script that will take an input file and remove identical lines.

Algorithm :
1 Read file
2 Remove ideentical lines and save result into a temporary file.
3 Copy temporary file to argument
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.
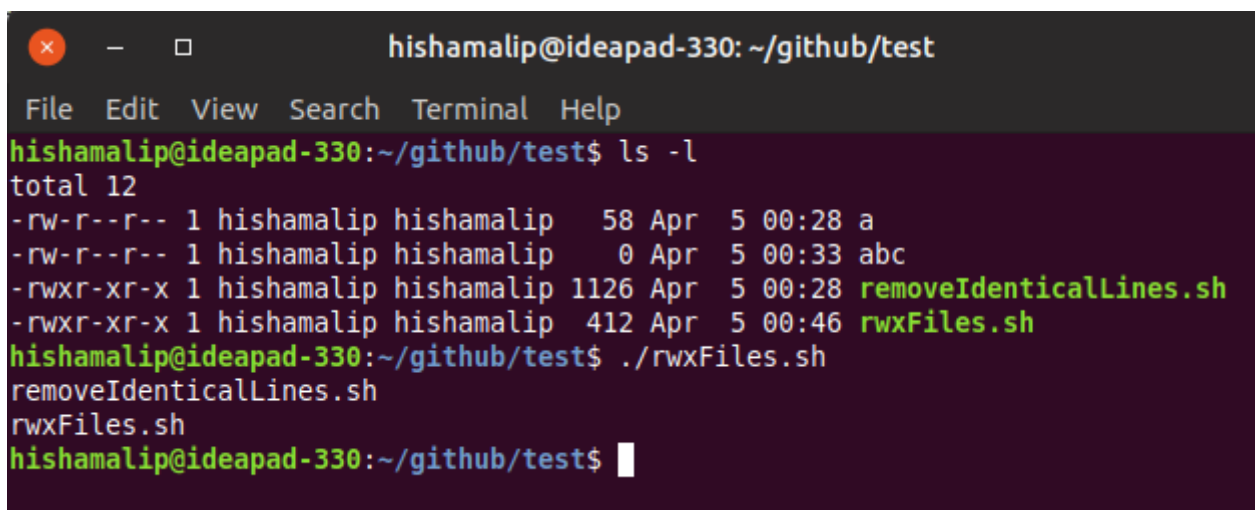
Algorithm :
1 Save permission of all files to a temporary file
2 while read i from temporary file
3   copy properties of files into variable x
4   if x is file with read, write and execute permission
5   set flag = 1
6   print file name
7   end if
8 end while
9 if flag != 1
10   print "No files with 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 Save total no of lines of file into variable n
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.
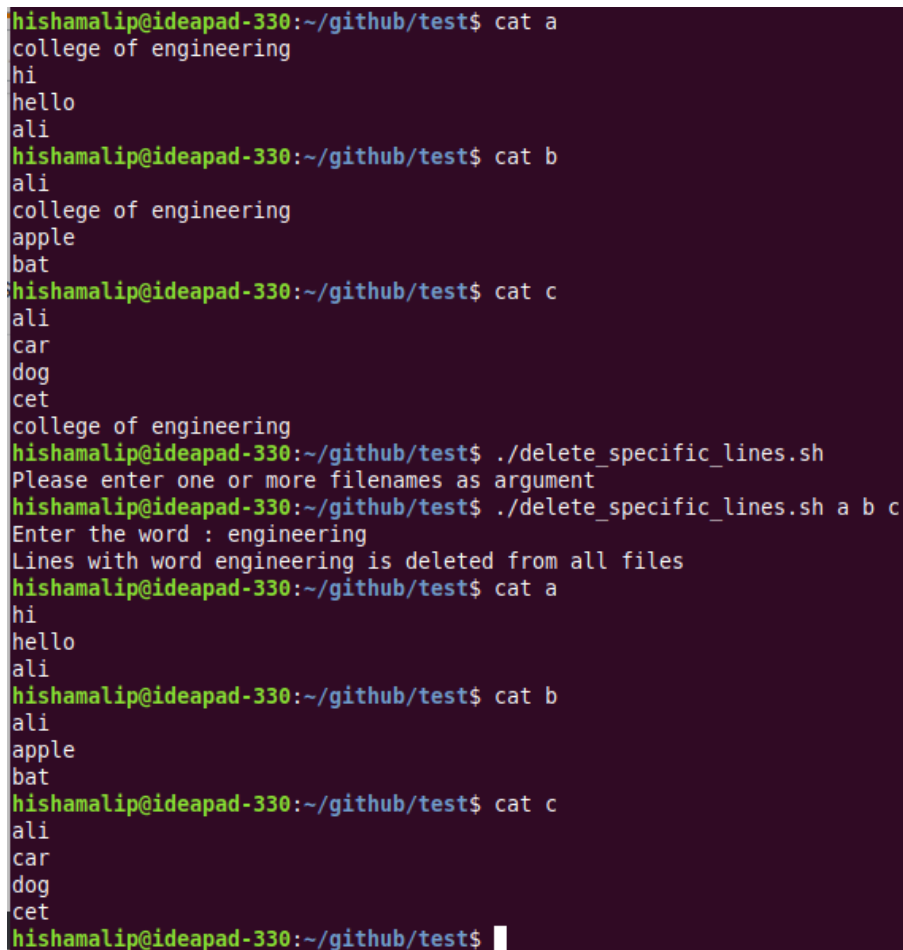
Algorithm :

1 Read argumnets from $*
2 Print "Enter the word to delete"
3 for arguments in $*
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 :

Result :

       Practiced various shell scripting programs and output is verified.