1. **Write a shell script to find greatest amongst three numbers.**

**Script:**

#finding gretest amont three numbers a,b,c

echo -n "Enter Number A: "

read A

echo -n "Enter Number B: "

read B

echo -n "Enter Number C: "

read C

if test $A -gt $B

then

if test $A -gt $C

then

echo "Number A $A is gretest"

else

echo "Number C $C is gretest"

fi

else

if test $B -gt $C

then

echo "Number B $B is gretest"

else

echo "Number C $C is gretest"

fi

fi

**Output:**

$ sh q1gretestNum.sh

Enter Number A: 5

Enter Number B: 7

Enter Number C: 3

Number B 7 is gretest

1. **Write a shell script to find all prime numbers in given range.**

**Script:**

echo -n "Enter Minimum Number: "

read MIN

echo -n "Enter Maximum Number: "

read MAX

J=$MIN

while [ $J -lt $MAX ]

do

I=2

FLAG=0

while [ $I -le $(expr $J / 2) ]

do

if [ $(expr $J % $I) -eq 0 ]

then

FLAG=1

break;

fi

I=$(expr $I + 1)

done

if [ $FLAG -eq 0 ]

then

echo $J

fi

J=$(expr $J + 1)

done

**Output:**

$ sh q2allPrimeNum.sh

Enter Minimum Number: 2

Enter Maximum Number: 20

2

3

5

7

11

13

17

19

1. **Write a shell script to find if the number is even, odd or zero.**

**Script:**

echo -n "Enter Number: "

read NUM

if test $NUM -eq 0

then

echo "Number is Zero"

exit

fi

M=`expr $NUM % 2`

if test $M -eq 0

then

echo "Number is Even"

else

echo "Number is Odd"

fi

**Output:**

$ sh q3evenOrOdd.sh

Enter Number: 7

Number is Odd

1. **Write a shell script to draw following pattern.**

**\***

**\* \***

**\* \* \***

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

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

**Script:**

NUM=5

I=0

while test $I -le $NUM

do

J=0

while test $J -le $I

do

echo -n "\* "

J=`expr $J + 1`

done

I=`expr $I + 1`

echo ""

Done

**Output:**

$ sh q4Pattern.sh

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

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

1. **Write a shell script to find sum of digits of a number.**

**Script:**

echo -n "Enter Number: "

read NUM

SUM=0

until test $NUM -eq 0

do

RES=`expr $NUM % 10`

SUM=`expr $SUM + $RES`

NUM=`expr $NUM / 10`

done

echo "SUM : $SUM"

**Output:**

$ sh q5SumOfDigits.sh

Enter Number: 221

SUM : 5

1. **Write a shell script to find if a year is leap year or not. (Please put necessary validations)**

**Script:**

echo -n "Enter Year: "

read YEAR

if test $YEAR -lt 0

then

echo "Year Must Be Positive Integer"

else

if test $(expr $YEAR % 4) -eq 0

then

echo "It is Leap Year"

else

echo "It is Not Leap Year"

fi

fi

**Output:**

$ sh q6leapYear.sh

Enter Year: 2018

It is Not Leap Year

1. **Write a shell script to print fibonacci series upto entered value N.**

**Script:**

echo -n "Enter Number N: "

read N

N1=0

N2=1

while test $N2 -le $N

do

echo $N2

T=$N2

N2=`expr $N1 + $N2`

N1=$T

done

**Output:**

sh q7fibonacci.sh

Enter Number N: 25

1

1

2

3

5

8

13

21

1. **Write a menu driven shell script which accepts basic amount as an input and displays following options.**

**a. Dearness allowance (90% of basic)**

**b. Provident Fund F (12% of basic)**

**c. House Rent Allowance ( 20% of basic + DA)**

**d. Income tax deducted (5% of basic + DA + HRA)**

**e. Take home salary (basic + DA + HRA – IT)**

**Script:**

echo -n "Enter Basic Salary: "

read basic

echo "Choose what to find: "

echo "a. for Dearness allowance"

echo "b. for Provident Func"

echo "c. for Hourse Rent"

echo "d. for Income Tax deducted"

echo "e. for Take Home Salary"

#read opt

da="$((( $basic \* 90 ) / 100 ))"

pf="$((( $basic \* 12 ) / 100 ))"

hra="$(((( $basic \* 20 ) / 100 ) + $da))"

it="$((( (($basic + $da) + $hra ) \* 5 ) / 100 ))"

ths=`expr $basic + $da + $hra - $it`

read opt

case $opt in

a)

echo $da

;;

b)

echo $pf

;;

c)

echo $hra

;;

d)

echo $it

;;

e)

echo $ths

;;

\*)

echo "No valid Option Selected"

Esac

**Output:**

sh q8salaryCale.sh

Enter Basic Salary: 5 10000

Choose what to find:

a. for Dearness allowance

b. for Provident Func

c. for Hourse Rent

d. for Income Tax deducted

e. for Take Home Salary

a

9000

1. **Write a shell script to find file permissions of user, group and others.**

**Script:**

echo -n "Enter File Name: "

read FILE

if [ ! -f $FILE ]

then

echo "File do not exist."

exit

fi

LSO=`ls -l $FILE`

FP=`expr substr "$LSO" 2 9`

# checking every rwx latters in FP

ur=`expr substr $FP 1 1`

uw=`expr substr $FP 2 1`

ux=`expr substr $FP 3 1`

gr=`expr substr $FP 4 1`

gw=`expr substr $FP 5 1`

gx=`expr substr $FP 6 1`

or=`expr substr $FP 7 1`

ow=`expr substr $FP 8 1`

ox=`expr substr $FP 9 1`

echo "User's permissions: "

if test $ur != ""-""

then

echo "\tRead"

fi

if test $uw != "-"

then

echo "\tWrite"

fi

if test $ux != "-"

then

echo "\tExecute"

fi

echo "Group's permissions: "

if test $gr != "-"

then

echo "\tRead"

fi

if test $gw != "-"

then

echo "\tWrite"

fi

if test $gx != "-"

then

echo "\tExecute"

fi

echo "Other's permissions: "

if test $or != "-"

then

echo "\tRead"

fi

if test $ow != "-"

then

echo "\tWrite"

fi

if test $ox != "-"

then

echo "\tExecute"

fi

**Output:**

sh q9filePermissionUGA.sh

Enter File Name: f1.txt

User's permissions:

Read

Write

Group's permissions:

Read

Write

Other's permissions:

Read

1. **Write a shell script that accepts two files are identical or not.**

**Script:**

echo -n "Enter File1 Name: "

read FILE1

if [ ! -f $FILE1 ]

then

echo "File $FILE1 do not exist."

exit

fi

echo -n "Enter File2 Name: "

read FILE2

if [ ! -f $FILE2 ]

then

echo "File $FILE2 do not exist."

exit

fi

if cmp --silent $FILE1 $FILE2

then

echo "Files $FILE1 and $FILE2 are Identical"

else

echo "Files $FILE1 and $FILE2 are not Identical"

fi

**Output:**

sh q10cmpFiles.sh

Enter File1 Name: f1

Enter File2 Name: f2

Files f1 and f2 are Identical

1. **Write a shell script to display all the words, having length <4 characters, of a file f1.txt**

**Script:**

FL="f1.txt"

CNT=`cat $FL`

for i in $CNT

do

if [ "$(expr length "$i")" -lt 4 ]

then

echo $i

fi

done

**Output:**

sh q11wordslt4.sh

my

is

i

am

of

bca

in

i

to

is

4

in

is

one

os

is

Yes

i

not

i

|

a

in

is

2nd

is

of

end

1. **Write a shell script to find total number of files and total number of directories in current working directory.**

**Script:**

FLS=$(ls -a)

FILES=0

DIRS=0

for i in $FLS

do

if test -f $i

then

FILES=$(expr $FILES + 1)

elif test -d $i

then

DIRS=$(expr $DIRS + 1)

fi

done

echo "Total Files: $FILES"

echo "Total Directories: $DIRS"

**Output:**

sh q13wordcount.sh

Total Files: 30

Total Directories: 5

1. **Write a shell script to find total number of characters, words and lines of a file. (Do not use wc command.**

**Script:**

echo -n "Enter File Name: "

read FILE

if [ ! -f $FILE ]

then

echo "File $FILE do not exist."

exit

fi

CHARS=0

WORDS=0

LINES=0

while read ln

do

for w in $ln

do

clen=$(expr length $w)

CHARS=$(expr $CHARS + 1 + $clen)

WORDS=$(expr $WORDS + 1)

done

LINES=$(expr $LINES + 1)

done < $FILE

echo "Total Characters: $CHARS"

echo "Total Words: $WORDS"

echo "Total Lines: $LINES"

**Output:**

sh q13wordcount.sh

Enter File Name: f1.txt

Total Characters: 356

Total Words: 68

Total Lines: 20

1. **Write a shell script which accepts a username and check the entered user is currently logge in or not.**

**Script:**

echo -n "Enter Username: "

read User

if [ $(whoami) = $User ]

then

echo "Entered Username is currently logged in"

else

echo "Entered Username is currently not logged in"

fi

**Output:**

sh q14UserLogged.sh

Enter Username: adie

Entered Username is currently logged in

1. **Write a shell script to find total number of occurrences of SDJIC in given file. (Please provide necessary validations)**

**Script:**

echo -n "Enter File Name: "

read FILE

if [ ! -f $FILE ]

then

echo "File $FILE do not exist."

exit

fi

echo $(grep -c "SDJIC" $FILE )

**Output:**

sh 1Kq15countSDJIC.sh

Enter File Name: f1.txt

4

1. **Write a shell script which accepts filename as input and reverse individual words from it. (Please provide necessary validations)**

**Script:**

echo -n "Enter File Name: "

read FILE

if [ ! -f $FILE ]

then

echo "File $FILE do not exist."

exit

fi

while read ln

do

for w in $ln

do

REV=$(echo "$w" | rev)

echo -n "$REV "

done

echo ""

done < $FILE

**Output:**

sh q16revWords.sh

Enter File Name: f1.txt

ym eman si hsradaa yednap

i ma tneduts fo acb seiduts ni cijds egelloc 5mes

i deen ot tnirp sdrow hcihw tgnel si ssel neht 4 retcarahc

|tseb sdrow

CIJDS lanoitanretni ebgelloc

tseb egelloc ni tarus si CIJDS

DNEIRFTSEB

eno doog so si XINU

seY

i lliw ton liaf

i evol | cijds

a taerg egelloc ni tarus si cijds

dn2 rebotco si yadhtrib fo ihdnaG

6333152652

dne

1. **Write a shell script to display all the lines from a file (11.txt), which starts with text “unix”. (not case sensitive)**

**Script:**

FILE="11.txt"

while read ln

do

WD=`expr substr "$ln" 1 4`

UN=`echo $WD | tr [:A-Z] [:a-z]`

if [ $UN = "unix" ]

then

echo $ln

fi

done < $FILE

**Output:**

$ sh q17StartsWithUnix.sh

Unix is very good os

unix is pwoerful

1. **Write grep command to perform following actions:**
2. **a. Count number of blank lines in file f1.txt**
3. **b. print all lines containing sdjic**
4. **c. print the lines that starts with sdjic.**
5. **d. Search the files in CPROGRAMS directory which has the string "include"**
6. **e. print lines having exactly 50 characters in file f1.txt**
7. **f. Count number of blank lines in file f1.txt**
8. **g. Display lines having atleast one characters in file f1.txt**
9. **h. Display lines having sdjic text in any case in file f1.txt**
10. **i. Display line of file f1.txt having exactly 3 characters**
11. **j. Display lines of file f1.txt which begin with any alphabetk. Display lines whose last word is “UNIX” in file f1.txt**
12. **l. Display filenames having last character as digit [0-9]**
13. **m. Display list of filenames that only consist digits**
14. **n. Display line of file f1.txt which only consist digits**
15. **o. Display lines of file f1.txt which only consist capital alphabets**
16. **p. Search all lines in file f1.txt which ends with “.”**

**Script:**

echo "a. Count number of blank lines in file f1.txt"

grep -c "^$" f1.txt

echo "--------------------------------------------------------"

echo "b. print all lines containing sdjic."

grep "sdjic" f1.txt

echo "--------------------------------------------------------"

echo "c. print the lines that starts with sdjic."

grep "^sdjic" f1.txt

echo "--------------------------------------------------------"

echo "d. Search the files in CPROGRAMS directory which has the string 'include'"

grep -l "include" CPROGRAMS/\*

echo "--------------------------------------------------------"

echo "e. print lines having exactly 50 characters in file f1.txt"

grep "^.\{50\}$" f1.txt

echo "--------------------------------------------------------"

echo "f. Count number of blank lines in file f1.txt"

grep -c "^$" f1.txt

echo "--------------------------------------------------------"

echo "g. Display lines having atleast one characters in file f1.txt"

grep "." f1.txt

echo "--------------------------------------------------------"

echo "h. Display lines having sdjic text in any case in file f1.txt"

grep -i "sdjic" f1.txt

echo "--------------------------------------------------------"

echo "i. Display line of file f1.txt having exactly 3 characters"

grep "^...$" f1.txt

echo "--------------------------------------------------------"

echo "j. Display lines of file f1.txt which begin with any alphabet"

grep "^[a-zA-Z]" f1.txt

echo "--------------------------------------------------------"

echo "k. Display lines whose last word is “UNIX” in file f1.txt"

grep "UNIX$" f1.txt

echo "--------------------------------------------------------"

echo "l. Display filenames having last character as digit [0-9]"

grep "[0-9]$" f1.txt

echo "--------------------------------------------------------"

echo "m. Display list of filenames that only consist digits"

grep -r -l "^[0-9]\{1,\}$" \*

echo "--------------------------------------------------------"

echo "n. Display line of file f1.txt which only consist digits"

grep "^[0-9]\{1,\}$" f1.txt

echo "--------------------------------------------------------"

echo "o. Display lines of file f1.txt which only consist capital alphabets"

grep "^[A-Z]\{1,\}$" f1.txt

echo "--------------------------------------------------------"

echo "p. Search all lines in file f1.txt which ends with '.'"

grep "\. $" f1.txt

echo "--------------------------------------------------------"

**Output:**

**Content Of File f1.txt:**

a. Count number of blank lines in file f1.txt

5

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

b. print all lines containing sdjic.

i am student of bca studies in sdjic college sem5

sdjic international collegbe.

i love | sdjic

a great college in surat is sdjic.

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

c. print the lines that starts with sdjic.

sdjic international collegbe.

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

d. Search the files in CPROGRAMS directory which has the string 'include'

CPROGRAMS/arrayInputOutput.c

CPROGRAMS/assQ1.c

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

e. print lines having exactly 50 characters in file f1.txt

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

f. Count number of blank lines in file f1.txt

5

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

g. Display lines having atleast one characters in file f1.txt

my name is aadarsh pandey

i am student of bca studies in sdjic college sem5

i need to print words which lengt is less then 4 character

best| words

sdjic international collegbe.

best college in surat is SDJIC .

BESTFRIEND

one good os is UNIX

Yes

i will not fail

i love | sdjic

a great college in surat is sdjic.

2nd october is birthday of Gandhi

2562513336

end

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

h. Display lines having sdjic text in any case in file f1.txt

i am student of bca studies in sdjic college sem5

sdjic international collegbe.

best college in surat is SDJIC .

i love | sdjic

a great college in surat is sdjic.

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

i. Display line of file f1.txt having exactly 3 characters

Yes

end

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

j. Display lines of file f1.txt which begin with any alphabet

my name is aadarsh pandey

i am student of bca studies in sdjic college sem5

i need to print words which lengt is less then 4 character

best| words

sdjic international collegbe.

best college in surat is SDJIC .

BESTFRIEND

one good os is UNIX

Yes

i will not fail

i love | sdjic

a great college in surat is sdjic.

end

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

k. Display lines whose last word is “UNIX” in file f1.txt

one good os is UNIX

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

l. Display filenames having last character as digit [0-9]

i am student of bca studies in sdjic college sem5

2562513336

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

m. Display list of filenames that only consist digits

f1.txt

unixadie.docx

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

n. Display line of file f1.txt which only consist digits

2562513336

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

o. Display lines of file f1.txt which only consist capital alphabets

BESTFRIEND

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

p. Search all lines in file f1.txt which ends with '.'

best college in surat is SDJIC .

a great college in surat is sdjic.

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

1. **Write sed command to perform following tasks**
2. **a. To print only last line of f1.txt**
3. **b. To print line number 1-3, 6-7 and 10 of f1.txt**
4. **c. To print lines beginning with SDJIC of f1.txt**
5. **d. Print three lines starting from fourth line of f1.txt**
6. **e. Print all blank lines of file f1.txt**
7. **f. Print lines having either of “sdjic” or “sdjyc”**
8. **g. Lines beginning with either alphabet or digit**
9. **h. To insert a line “additional line” before every line**
10. **i. To replace every occurrence of | with : of first three lines**
11. **j. To replace every occurrence of “|” with “:” of every line**
12. **k. To remove all the lines having word “fail” from file f1.txt (delete command)**

**Script:**

echo "a. To print only last line of f1.txt"

sed -n "$ p" f1.txt

echo "-------------------------------------------------------"

echo "b. To print line number 1-3, 6-7 and 10 of f1.txt"

sed -n -e "1,3 p" -e "6,7 p" -e "10 p" f1.txt

echo "-------------------------------------------------------"

echo "c. To print lines beginning with SDJIC of f1.txt"

sed -n "/^SDJIC/ p" f1.txt

echo "-------------------------------------------------------"

echo "d. Print three lines starting from fourth line of f1.txt"

sed -n "4,$ p" f1.txt | sed "3 q"

echo "-------------------------------------------------------"

echo "e. Print all blank lines of file f1.txt"

sed -n "/^$/ p" f1.txt

echo "-------------------------------------------------------"

echo "f. Print lines having either of “sdjic” or “sdjyc”"

sed -n "/sdj[iy]c/ p" f1.txt

echo "-------------------------------------------------------"

echo "g. Lines beginning with either alphabet or digit"

sed -n "/[a-zA-Z0-9]/ p" f1.txt

echo "-------------------------------------------------------"

echo "h. To insert a line “additional line” before every line"

sed "i \ additional line \ " f1.txt

echo "-------------------------------------------------------"

echo "i. To replace every occurrence of \| with : of first three lines"

sed "1,3 s/|/:/g" f1.txt

echo "-------------------------------------------------------"

echo "j. To replace every occurrence of '|' with ':' of every line"

sed "s/|/:/g" f1.txt

echo "-------------------------------------------------------"

echo "k. To remove all the lines having word \“fail\” from file f1.txt \(delete command\)"

sed "/fail/ d" f1.txt

**Output:**

**Content Of File f1.txt:**

a. To print only last line of f1.txt

end

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

b. To print line number 1-3, 6-7 and 10 of f1.txt

my name is aadarsh pandey

i am student of bca studies in sdjic college sem5

i need to print words which lengt is less then 4 character

sdjic international collegbe

best college in surat is SDJIC .

one good os is UNIX

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

c. To print lines beginning with SDJIC of f1.txt

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

d. Print three lines starting from fourth line of f1.txt

best| words

sdjic international collegbe

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

e. Print all blank lines of file f1.txt

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

f. Print lines having either of “sdjic” or “sdjyc”

i am student of bca studies in sdjic college sem5

sdjic international collegbe

i love | sdjic

a great college in surat is sdjic.

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

g. Lines beginning with either alphabet or digit

my name is aadarsh pandey

i am student of bca studies in sdjic college sem5

i need to print words which lengt is less then 4 character

best| words

sdjic international collegbe

best college in surat is SDJIC .

BESTFRIEND

one good os is UNIX

Yes

i will not fail

i love | sdjic

a great college in surat is sdjic.

2nd october is birthday of Gandhi

2562513336

end

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

h. To insert a line “additional line” before every line

additional line

my name is aadarsh pandey

additional line

i am student of bca studies in sdjic college sem5

additional line

i need to print words which lengt is less then 4 character

additional line

additional line

best| words

additional line

sdjic international collegbe

additional line

best college in surat is SDJIC .

additional line

BESTFRIEND

additional line

additional line

one good os is UNIX

additional line

additional line

Yes

additional line

i will not fail

additional line

i love | sdjic

additional line

a great college in surat is sdjic.

additional line

2nd october is birthday of Gandhi

additional line

2562513336

additional line

additional line

additional line

end

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

i. To replace every occurrence of \| with : of first three lines

my name is aadarsh pandey

i am student of bca studies in sdjic college sem5

i need to print words which lengt is less then 4 character

best| words

sdjic international collegbe

best college in surat is SDJIC .

BESTFRIEND

one good os is UNIX

Yes

i will not fail

i love | sdjic

a great college in surat is sdjic.

2nd october is birthday of Gandhi

2562513336

end

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

j. To replace every occurrence of '|' with ':' of every line

my name is aadarsh pandey

i am student of bca studies in sdjic college sem5

i need to print words which lengt is less then 4 character

best: words

sdjic international collegbe

best college in surat is SDJIC .

BESTFRIEND

one good os is UNIX

Yes

i will not fail

i love : sdjic

a great college in surat is sdjic.

2nd october is birthday of Gandhi

2562513336

end

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

k. To remove all the lines having word \“fail\” from file f1.txt \(delete command\)

my name is aadarsh pandey

i am student of bca studies in sdjic college sem5

i need to print words which lengt is less then 4 character

best| words

sdjic international collegbe

best college in surat is SDJIC .

BESTFRIEND

one good os is UNIX

Yes

i love | sdjic

a great college in surat is sdjic.

2nd october is birthday of Gandhi

2562513336

end

1. **Write awk command on a file f2.txt having format**

**<EmpNo>|<EmpName>|<Designation>|<Department>|<DateOfJoining(DD/MM/YYYY)>|<Salary>**

1. **Print name of the employee and designation of employee number 1021**
2. **Print name of the employee and designation of employees having salary > 10000**
3. **Print name of the employee and designation of employee of Finance department**
4. **Same as 17(c) using printf statement.**
5. **Same as 17(c) using printf statement and redirect the output to out.txt file**
6. **Print Serial number, employee number and employee name using printf statement of all managers and presidents.**
7. **Print Serial number, employee number, employee name and salary with header title “Manager Details” and footer average salary. (Use separate c1.awk script file and call it in awk command).**
8. **Same as 17(g) but accept designation as input (using getline).**

**Script:**

echo "a. Print name of the employee and designation of employee number 1021"

awk -F"|" '$1 == 1006 {print $2,$3}' f2.txt

echo "-------------------------------------------------------"

echo "b. Print name of the employee and designation of employees having salary > 10000"

awk -F"|" '$6 > 10000 {print $2,$3}' f2.txt

echo "-------------------------------------------------------"

echo "c. Print name of the employee and designation of employee of Finance department"

awk -F"|" '$4 == "finance" {print $2,$3}' f2.txt

echo "-------------------------------------------------------"

echo "d. Same as 20(c) using printf statement."

awk -F"|" '$4 == "finance" {printf "%-20s %-15s\n",$2,$3}' f2.txt

echo "-------------------------------------------------------"

echo "e. Same as 20(c) using printf statement and redirect the output to out.txt file"

awk -F"|" '$4 == "finance" {printf "%-20s %-15s\n",$2,$3 > "out.txt"} ' f2.txt

echo "-------------------------------------------------------"

echo "f. Print Serial number, employee number and employee name using printf statement of all managers and presidents."

awk -F"|" '$3=="manager"||$3=="president" {printf "%3d %-20s %-12s \n",NR,$1,$2}' f2.txt

echo "-------------------------------------------------------"

echo "g. Print Serial number, employee number, employee name and salary with header title “Manager Details” and footer average salary. (Use separate c1.awk script file and call it in"

awk -F"|" -f c1.awk f2.txt

echo "-------------------------------------------------------"

echo "h. Same as 20(g) but accept designation as input (using getline)."

awk -F"|" -f c2.awk f2.txt

**Output:**

**Content Of File f2.txt:**

2233|a.k. shukla|g.m.|sales|12/12/52|6000

9876|jai sharma|director|production|12/03/50|7000

5678|sumit chakrobarty|d.g.m.|marketing|19/04/43|6000

2365|barun sengupta|director|personnel|11/05/47|7800

5423|n.k. gupta|chairman|admin|30/08/56|5400

1006|chanchal singhvi|director|sales|03/09/38|6700

6213|karuna ganguly|g.m.|accounts|05/06/62|6300

1265|s.n. dasgupta|manager|sales|12/09/63|5600

4290|jayant Choudhury|executive|production|07/09/50|6000

2476|anil aggarwal|manager|finance|01/05/59|5000

6521|lalit chowdury|director|marketing|26/09/45|82200

3212|shyam saksena|d.g.m.|accounts|12/12/55|6000

3564|sudhir Agarwal|executive|personnel|06/07/47|17500

2345|j.b. saxena|g.m.|marketing|12/03/45|80000

0110|v.k. agrawal|g.m.|marketing|31/12/40|9000

**C1.awk:**

BEGIN{

print "Manager Details"

} $3=="manager"||$3=="president"{

count++;

total += $6

printf "%3d %-20s %-12s %10.2f \n",NR,$1,$2,$6

}

END{

printf "Average Salary: %d\n",total/count

}

**C2.awk:**

BEGIN{

printf "Enter Designation: "

getline deg < "/dev/tty"

print "Manager Details"

} $3==deg{

count++;

total += $6

printf "%3d %-20s %-12s %10.2f \n",NR,$1,$2,$6

}

END{

printf "Average Salary: %d\n",total/count

}

a. Print name of the employee and designation of employee number 1021

chanchal singhvi director

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

b. Print name of the employee and designation of employees having salary > 10000

lalit chowdury director

sudhir Agarwal executive

j.b. saxena g.m.

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

c. Print name of the employee and designation of employee of Finance department

anil aggarwal manager

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

d. Same as 20(c) using printf statement.

anil aggarwal manager

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

e. Same as 20(c) using printf statement and redirect the output to out.txt file

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

f. Print Serial number, employee number and employee name using printf statement of all managers and presidents.

8 1265 s.n. dasgupta

10 2476 anil aggarwal

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

g. Print Serial number, employee number, employee name and salary with header title “Manager Details” and footer average salary. (Use separate c1.awk script file and call it in

Manager Details

8 1265 s.n. dasgupta 5600.00

10 2476 anil aggarwal 5000.00

Average Salary: 5300

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

h. Same as 20(g) but accept designation as input (using getline).

Enter Designation: manager

Manager Details

8 1265 s.n. dasgupta 5600.00

10 2476 anil aggarwal 5000.00

Average Salary: 5300