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## Assignment No. 01

**Name of Student:** Rupesh Ramesh Desai

**Roll No. :**

**Class:** B.Sc III

**Date:**     /     /

**Signature:**

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**Q. Write a shell script using grep command to print prime numbers between 2 to 30.**

**Program:**

```
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**\*\*\*\*\*

```
ubuntu@ubuntu-desktop:~$ vi as1.sh
ubuntu@ubuntu-desktop:~$ sh as1.sh
enter m and n
2 30
2
3
5
7
11
13
17
19
23
29
```

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## Assignment No. 02

**Name of Student:** Rupesh Ramesh Desai

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**Q. Write a shell scripts to find whether the supplied user working on network or not.  
If he/she is working then display his/her login time.**

**Program:**

```
echo "Enter user name"
read name
who > test
if grep $name test
then
echo "logged in"
else
echo "not logged in"
fi
```

\*\*\*\*\***OUTPUT**\*\*\*\*\*

```
ubuntu@ubuntu-desktop:~$ vi as2.sh
ubuntu@ubuntu-desktop:~$ sh as2.sh
Enter user name
Rupesh
not logged in
ubuntu@ubuntu-desktop:~$ sh as2.sh
Enter user name
ubuntu
ubuntu :0      2023-04-18 12:55 (:0)
logged in
```

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## Assignment No. 03

**Name of Student:** Rupesh Ramesh Desai

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**Q. Write a an awk program to display customer earning report with given format.**

**Program-**

```
ajay manager account 45000
Aniket clerk account 25000
varun manager sales 50000
amit manager account 47000
tarun peon sales 15000
deepak clerk sales 23000
sunil peon sales 13000
satvil director purchase 80000
```

\*\*\*\*\***OUTPUT**\*\*\*\*\*

```
ubuntu@ubuntu-desktop:~$ awk '{print}' as3.sh
```

```
ajay manager account 45000
Aniket clerk account 25000
varun manager sales 50000
amit manager account 47000
tarun peon sales 15000
deepak clerk sales 23000
sunil peon sales 13000
satvil director purchase 80000
```

```
ubuntu@ubuntu-desktop:~$ awk '/manager/ {print}' as3.sh
```

```
ajay manager account 45000
varun manager sales 50000
amit manager account 47000
```

```
ubuntu@ubuntu-desktop:~$ awk '{print NR,$0}' as3.sh
```

```
1 ajay manager account 45000
2 sunil clerk account 25000
3 varun manager sales 50000
4 amit manager account 47000
5 tarun peon sales 15000
6 deepak clerk sales 23000
7 sunil peon sales 13000
8 satvil director purchase 80000
```

```
ubuntu@ubuntu-desktop:~$ awk '{print $1,$NF}' as3.sh
```

```
ajay 45000
sunil 25000
```

varun 50000  
amit 47000  
tarun 15000  
deepak 23000  
sunil 13000  
satvil 80000

ubuntu@ubuntu-desktop:~\$ awk '{print \$1,\$4}' as3.sh  
ajay 45000  
sunil 25000  
varun 50000  
amit 47000  
tarun 15000  
deepak 23000  
sunil 13000  
satvil 80000

ubuntu@ubuntu-desktop:~\$ awk 'NR==3,NR==6 {print NR,\$0}' as3.sh  
3 varun manager sales 50000  
4 amit manager account 47000  
5 tarun peon sales 15000  
6 deepak clerk sales 23000

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## Assignment No. 04

**Name of Student:** Rupesh Ramesh Desai

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**Q. Write a shell script which accept a file name as input. Find out whether it is ordinary file or directory. If a file is available then display all file access permission screen.**

**Program:**

```
echo "Enter a file name"
read filename
if [ -d $filename ]
then
    echo "The provided argument is the directory"
elif [ -f $filename ]
then
    echo "The provided argument is the file"

elif [[ -w $filename ] && W=" Write = yes " || W=" Write = no "]
then
    echo " $filename permissions "
    echo "$W"
elif [[ -x $filename ] && X=" Execute = yes " || X=" Execute = no " ]
then
    echo " $filename permissions "
    echo "$R"
elif [[ -r $filename ] && R=" Read = yes " || R=" Read = no "]
then
    echo " $filename permissions "
    echo " $X "
else
    echo "The given argument does not exist"
fi
```

\*\*\*\*\***OUTPUT**\*\*\*\*\*

```
om@om-desktop:~/Documents/vi as4.sh
om@om-desktop:~/Documents/sh as4.sh
Enter a file name
Rupesh
The provided argument is the file
Rupesh permissions
Write=yes
Execute=yes
Read=no
om@om-desktop:~/Documents/sh as4.sh
```

Enter a file name

Sandesh

The provided argument is the directory

Sandesh permissions

Write=yes

Execute=no

Read=no

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## Assignment No. 05

**Name of Student:** Rupesh Ramesh Desai

**Roll No. :**

**Class:** B.Sc III

**Date:**     /     /

**Signature:**

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**Q. Write a shell script which copies files from one directory to another during copy command.  
Program:**

```
ubuntu@ubuntu-desktop:~$ cd Documents
ubuntu@ubuntu-desktop:~/Documents$ mkdir B.Sc3
ubuntu@ubuntu-desktop:~/Documents$ cd B.Sc3
ubuntu@ubuntu-desktop:~/Documents/B.Sc3$ mkdir Rupesh
ubuntu@ubuntu-desktop:~/Documents/B.Sc3$ cd RupS
ubuntu@ubuntu-desktop:~/Documents/B.Sc3/Rupesh$ cat>student
Aniket
Mamata
Sandesh
Pranali
Vaidehi
Swati
Snehal
```

```
ubuntu@ubuntu-desktop:~/Documents/B.Sc3$ mkdir RupS
ubuntu@ubuntu-desktop:~/Documents/B.Sc3$ cd RupS
ubuntu@ubuntu-desktop:~/Documents/B.Sc3/ RupS $ cat>languages
Java
Python
Cpp
Asp.net
C#
```

```
ubuntu@ubuntu-desktop:~$ cp Documents/B.Sc3/Pranali/student Documents/B.Sc3/ RupS
/languages
ubuntu@ubuntu-desktop:~$ cd Documents
ubuntu@ubuntu-desktop:~/Documents$ cd B.Sc3
ubuntu@ubuntu-desktop:~/Documents/B.Sc3$ cd RupS
ubuntu@ubuntu-desktop:~/Documents/B.Sc3/ RupS $ cat languages
Aniket
Mamata
Sandesh
Pranali
Vaidehi
Swati
Snehal
```

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## Assignment No. 06

**Name of Student:** Rupesh Ramesh Desai

**Roll No. :**

**Class:** B.Sc III

**Date:**    /    /

**Signature:**

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**Q. Write an awk program to display stock report with given format.**

**Program:**

```
jay manager account 45000
seema clerk account 25000
sunil manager sales 50000
anil manager account 20000
deepak clerk sale 23000
anita employee manager 22000
satvik director purchase 80000
sunita employee manager 21000
varun director purchase 79000
kavita employee manager 20000
amit peon sales 13000
sumit peon sales 14000
```

\*\*\*\*\***OUTPUT**\*\*\*\*\*

```
ubuntu@ubuntu-desktop:~$ vi as6.sh
ubuntu@ubuntu-desktop:~$ awk '{print}' as6.sh
jay manager account 45000
seema clerk account 25000
sunil manager sales 50000
anil manager account 20000
deepak clerk sale 23000
anita employee manager 22000
satvik director purchase 80000
sunita employee manager 21000
varun director purchase 79000
kavita employee manager 20000
amit peon sales 13000
sumit peon sales 14000

ubuntu@ubuntu-desktop:~$ awk '{print $1,$4}' as6.sh
jay 45000
seema 25000
sunil 50000
anil 20000
deepak 23000
anita 22000
```



satvik 80000  
sunita 21000  
varun 79000  
kavita 20000  
amit 13000  
sumit 14000

ubuntu@ubuntu-desktop:~\$ awk '/manager/{print \$1}' as6.sh

jay  
sunil  
anil  
anita  
sunita  
kavita

ubuntu@ubuntu-desktop:~\$ awk '/employee/{print}' as6.sh

anita employee manager 22000  
sunita employee manager 21000  
kavita employee manager 20000

ubuntu@ubuntu-desktop:~\$ awk 'length(\$0)>26' as6.sh

anita employee manager 22000  
satvik director purchase 80000  
sunita employee manager 21000  
varun director purchase 79000  
kavita employee manager 20000

ubuntu@ubuntu-desktop:~\$ awk '{print NR,\$0}' as6.sh

1 jay manager account 45000  
2 seema clerk account 25000  
3 sunil manager sales 50000  
4 anil manager account 20000  
5 deepak clerk sale 23000  
6 anita employee manager 22000  
7 satvik director purchase 80000  
8 sunita employee manager 21000  
9 varun director purchase 79000  
10 kavita employee manager 20000  
11 amit peon sales 13000  
12 sumit peon sales 14000

ubuntu@ubuntu-desktop:~\$ awk '/deepak/{print}' as6.sh

deepak clerk sale 23000

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## Assignment No. 07

**Name of Student:** Rupesh Ramesh Desai

**Roll No. :**

**Class:** B.Sc III

**Date:**     /     /

**Signature:**

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**Q. Create a data file which contains given format and perform the given operations on that data file using sed.**

**Program:**

unix is great operating system  
unix is open source  
unix is free operating system  
unix is easy  
unix linux which one you select  
unix is multiuser unix is powerful

\*\*\*\*\***OUTPUT**\*\*\*\*\*

```
ubuntu@ubuntu-desktop:~$ sed 's/unix/linux/1' as7.sh
linux is great operating system
linux is open source
linux is free operating system
linux is easy
linux linux which one you select
linux is multiuser unix is powerful
```

```
om@om-desktop:~/Documents/sed '1 s/unix/linux/' sed
linux is great operating system
unix is open source
unix is free operating system
unix is easy
unix linux which one you select
unix is multiuser unix is powerful
```

```
om@om-desktop:~/Documents/sed 's/unix/linux/p' sed
linux is great operating system
linux is great operating system
linux is open source
linux is open source
linux is free operating system
linux is free operating system
linux is easy
linux is easy
linux linux which one you select
```

linux linux which one you select  
linux is multiuser unix is powerful  
linux is multiuser unix is powerful

om@om-desktop:~/Documents/sed -n 's/unix/linux/p' sed  
linux is great operating system  
linux is open source  
linux is free operating system  
linux is easy  
linux linux which one you select  
linux is multiuser unix is powerful

om@om-desktop:~/Documents/sed '1,3 s/unix/linux/' sed  
linux is great operating system  
linux is open source  
linux is free operating system  
unix is easy  
unix linux which one you select  
unix is multiuser unix is powerful

om@om-desktop:~/Documents/sed '2d' sed  
unix is great operating system  
unix is free operating system  
unix is easy  
unix linux which one you select  
unix is multiuser unix is powerful

om@om-desktop:~/Documents/sed '\$d' sed  
unix is great operating system  
unix is open source  
unix is free operating system  
unix is easy  
unix linux which one you select

om@om-desktop:~/Documents/sed '4,\$d' sed  
unix is great operating system  
unix is open source  
unix is free operating system

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## Assignment No. 08

**Name of Student:** Rupesh Ramesh Desai

**Roll No. :**

**Class:** B.Sc III

**Date:**     /     /

**Signature:**

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**Q. Write a shell script to copy a file using command line argument, source file must be exists and readable and target file must be non-existing file name.**

**Program:**

```
echo "Enter file name"
read XYZ
if [ $XYZ == 2 ]
then
echo "file $XYZ is exist"
exit 1
fi
if [ -f $1 ]
then
echo "No such file or directory exist"
exit 2
fi
```

\*\*\*\*\***OUTPUT**\*\*\*\*\*

```
ubuntu@ubuntu-desktop:~$ vi as8.sh
ubuntu@ubuntu-desktop:~$ sh as8.sh
Enter file name
Rupesh
file Rupesh is exit
ubuntu@ubuntu-desktop:~$ vi as8.sh
ubuntu@ubuntu-desktop:~$ sh as8.sh
Enter file name
Snehal
No such file or directory exist
```

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## Assignment No. 09

**Name of Student:** Rupesh Ramesh Desai

**Roll No. :**

**Class:** B.Sc III

**Date:**     /     /

**Signature:**

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**Q. Write a shell script, which works similar to wc command accept filename as command line argument.**

**Program:**

```
echo "enter the file name"
read ABC
echo "Number of lines in $ABC $(wc -l < $ABC)"
echo "Number of words in $ABC $(wc -w < $ABC)"
echo "Number of character in $ABC $(wc -c < $ABC)"
```

\*\*\*\*\***OUTPUT**\*\*\*\*\*

```
ubuntu@ubuntu-desktop:~$ cat>Students
```

```
Rupesh
```

```
Sandesh
```

```
snehal
```

```
mamata
```

```
vaidehi
```

```
Pranali
```

```
Kamlesh
```

```
shivani
```

```
ubuntu@ubuntu-desktop:~$ vi as9.sh
```

```
ubuntu@ubuntu-desktop:~$ sh as9.sh
```

```
enter the file name
```

```
Students
```

```
Number of lines in Students 8
```

```
Number of words in Students 8
```

```
Number of character in Students 56
```

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## Assignment No. 10

**Name of Student:** Rupesh Ramesh Desai

**Roll No. :**

**Class:** B.Sc III

**Date:**    /    /

**Signature:**

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**Q. Accept any word through command line argument and find out its length.**

**Program:**

```
echo "Enter the string"
read string
length=$(expr length $string)
echo "Length of the string is $length"
```

\*\*\*\*\***OUTPUT**\*\*\*\*\*

```
ubuntu@ubuntu-desktop:~$ vi as10.sh
ubuntu@ubuntu-desktop:~$ sh as10.sh
Enter the string
Rupesh
Length of the string is 7
```

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