Experiment No : 4

AIM

Familiarization of LINUX Commands.

CO2

Perform system administration task.

Procedure

1. read

    command to accept single line of input

    $ read

Output

   1.1)   read [variable names]

          to read contents of a line into variables.

     $ read v1 v2 v3

Output

   1.2)   read –p [user command prompt]

          to prompt user to enter values.

     $ read –p "Enter your name"

Output

```
dell@dell-VirtualBox:~$ read -p "enter your name"
enter your name sisira
dell@dell-VirtualBox:~$ echo my name is $REPLY
my name is sisira
dell@dell-VirtualBox:~$ 
```

    1.3)   read –n [specified character limit] [user command prompt]

         to prompt the user to enter values and is restricted to the character limit specified by user.

    $ read in 5 "Enter 5 characters only "

Output

```
                       vboxuser@ubuntu: ~/sample1           Q   ≡
vboxuser@ubuntu:~/sample1$ read -n 5 -p "Enter 5 characters only "
Enter 5 characters only hellovboxuser@ubuntu:~/sample1$ 
```

    1.4)   read –s –p [user command prompt]

         to prompt user to enter values which is secured and invisible to the user.

    $ read –s –p "Enter your password "
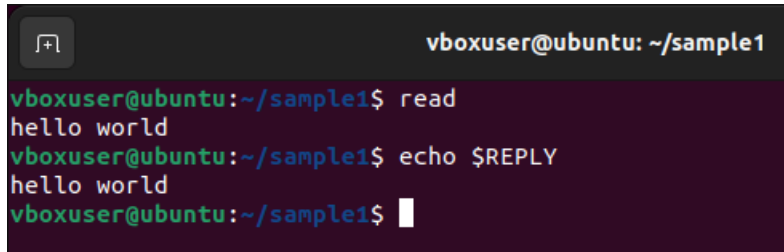
Output

```
                       vboxuser@ubuntu: ~/sample1           Q   ≡
vboxuser@ubuntu:~/sample1$ read -s -p "Enter your password "
Enter your password vboxuser@ubuntu:~/sample1$ 
```

2.   echo

         to display the contents read by '$ read' command.
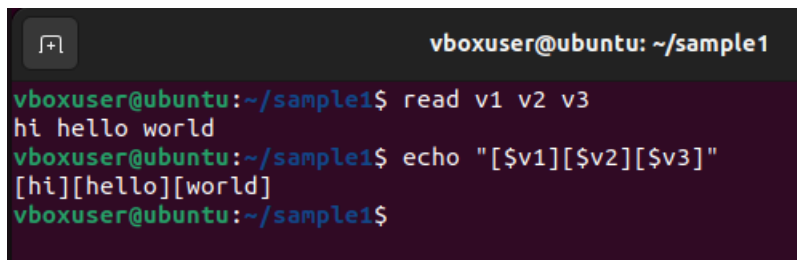
$ echo $REPLY

Output

```
vboxuser@ubuntu: ~/sample1
vboxuser@ubuntu:~/sample1$ read
hello world
vboxuser@ubuntu:~/sample1$ echo $REPLY
hello world
vboxuser@ubuntu:~/sample1$ ▊
```

2.1)   echo [variable names]

to print the values read by 'read' command.

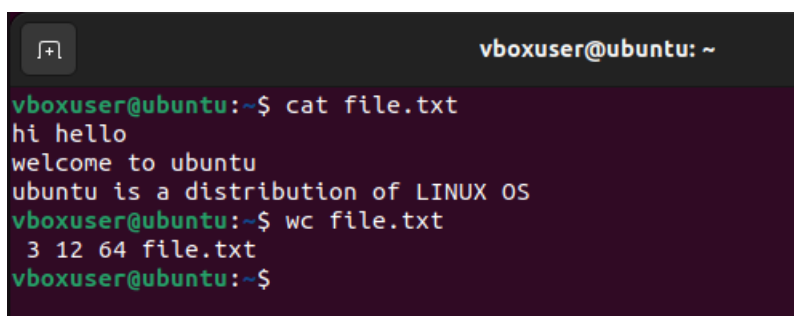$ echo "[$v1][$v2][$v3]"

Output

```
vboxuser@ubuntu: ~/sample1
vboxuser@ubuntu:~/sample1$ read v1 v2 v3
hi hello world
vboxuser@ubuntu:~/sample1$ echo "[$v1][$v2][$v3]"
[hi][hello][world]
vboxuser@ubuntu:~/sample1$
```

3)   wc [filename]

To display number of lines, number of words, number of bytes and filename.
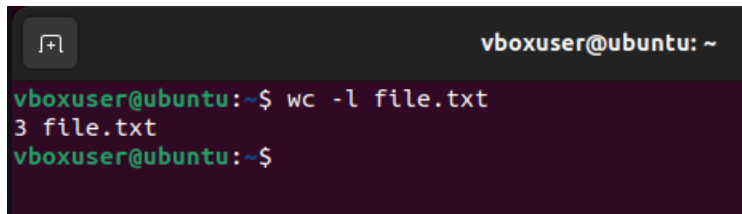
$wc file.txt

Output

```
vboxuser@ubuntu: ~
vboxuser@ubuntu:~$ cat file.txt
hi hello
welcome to ubuntu
ubuntu is a distribution of LINUX OS
vboxuser@ubuntu:~$ wc file.txt
 3 12 64 file.txt
vboxuser@ubuntu:~$
```

3.1)   wc –l [filename]
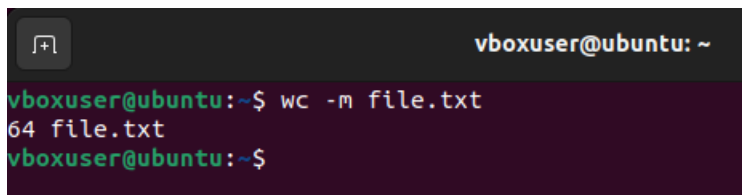
Displays the number of lines.

$wc –l file.txt

Output

```
┌+┐                          vboxuser@ubuntu: ~

vboxuser@ubuntu:~$ wc -l file.txt
3 file.txt
vboxuser@ubuntu:~$
```

3.2) wc –m [filename]

Displays the number of characters/bytes.

$wc –m file.txt

Output

```
┌+┐                          vboxuser@ubuntu: ~

vboxuser@ubuntu:~$ wc -m file.txt
64 file.txt
vboxuser@ubuntu:~$
```

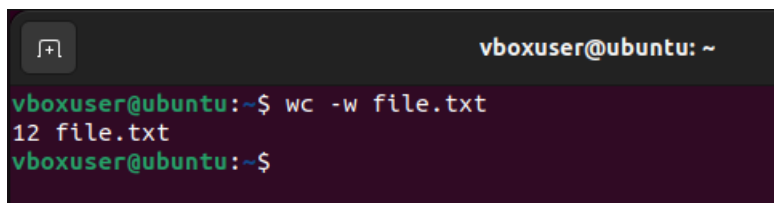3.3) wc –w [filename]

Displays the number of words.

$wc –w file.txt
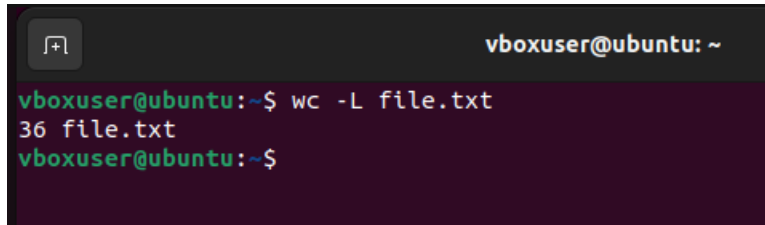
Output

```
┌+┐                          vboxuser@ubuntu: ~

vboxuser@ubuntu:~$ wc -w file.txt
12 file.txt
vboxuser@ubuntu:~$
```

3.4) wc –L [filename]

Displays the length of longest word.
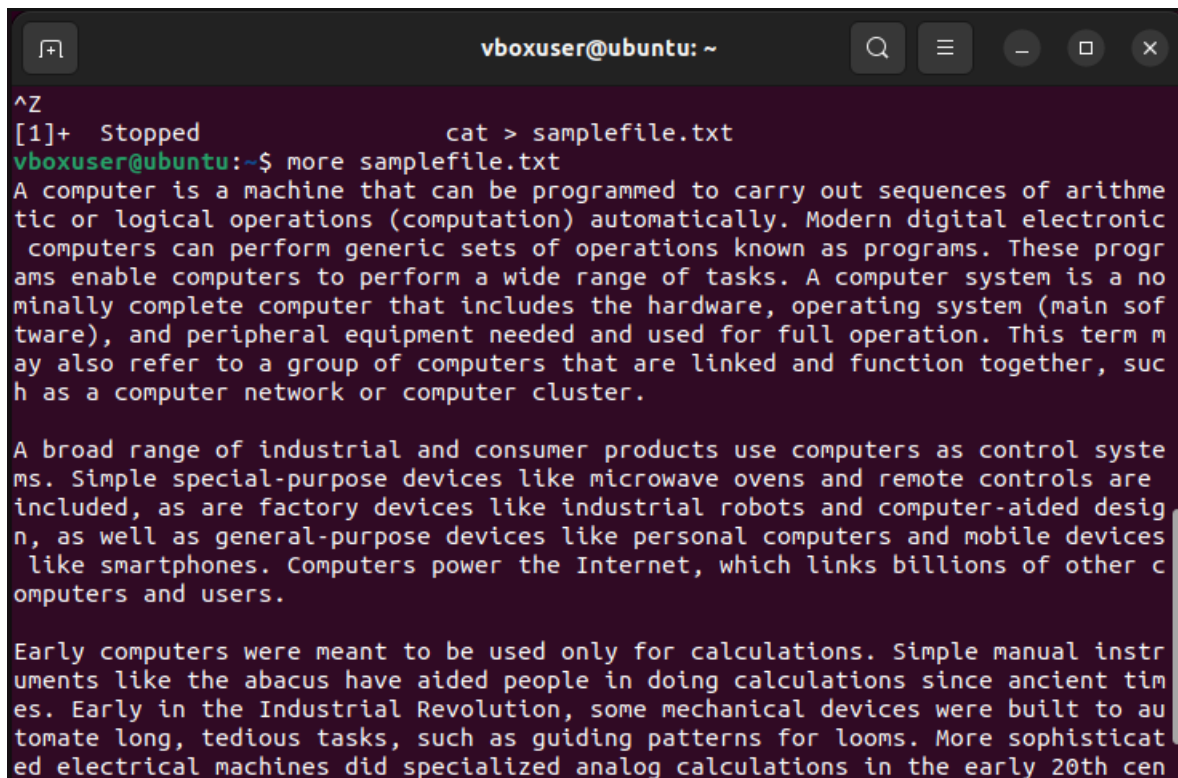
Output

```
                              vboxuser@ubuntu: ~
vboxuser@ubuntu:~$ wc -L file.txt
36 file.txt
vboxuser@ubuntu:~$
```

4) more [filename]

The more command is similar to cat to display the content. The only difference is that in case of large files, cat command output will scroll off your screen while more command display output one output screen at a time.

$ more samplefile.txt

Output

```
                              vboxuser@ubuntu: ~
^Z
[1]+  Stopped                 cat > samplefile.txt
vboxuser@ubuntu:~$ more samplefile.txt
A computer is a machine that can be programmed to carry out sequences of arithme
tic or logical operations (computation) automatically. Modern digital electronic
 computers can perform generic sets of operations known as programs. These progr
ams enable computers to perform a wide range of tasks. A computer system is a no
minally complete computer that includes the hardware, operating system (main sof
tware), and peripheral equipment needed and used for full operation. This term m
ay also refer to a group of computers that are linked and function together, suc
h as a computer network or computer cluster.

A broad range of industrial and consumer products use computers as control syste
ms. Simple special-purpose devices like microwave ovens and remote controls are
included, as are factory devices like industrial robots and computer-aided desig
n, as well as general-purpose devices like personal computers and mobile devices
 like smartphones. Computers power the Internet, which links billions of other c
omputers and users.

Early computers were meant to be used only for calculations. Simple manual instr
uments like the abacus have aided people in doing calculations since ancient tim
es. Early in the Industrial Revolution, some mechanical devices were built to au
tomate long, tedious tasks, such as guiding patterns for looms. More sophisticat
ed electrical machines did specialized analog calculations in the early 20th cen
```

```
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tury. The first digital electronic calculating machines were developed during Wo
rld War II. The first semiconductor transistors in the late 1940s were followed
--More--(56%)
```

4.1) more +[specified number of lines] [filename]

    To display the contents of file after specified number of lines.

  $ more +5 samplefile.txt

Output

```
vboxuser@ubuntu:~$ more +5 samplefile.txt
Early computers were meant to be used only for calculations. Simple manual instr
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tomate long, tedious tasks, such as guiding patterns for looms. More sophisticat
ed electrical machines did specialized analog calculations in the early 20th cen
tury. The first digital electronic calculating machines were developed during Wo
rld War II. The first semiconductor transistors in the late 1940s were followed
by the silicon-based MOSFET (MOS transistor) and monolithic integrated circuit c
hip technologies in the late 1950s, leading to the microprocessor and the microc
omputer revolution in the 1970s. The speed, power and versatility of computers h
ave been increasing dramatically ever since then, with transistor counts increas
ing at a rapid pace (as predicted by Moore's law), leading to the Digital Revolu
tion during the late 20th to early 21st centuries.

Conventionally, a modern computer consists of at least one processing element, t
ypically a central processing unit (CPU) in the form of a microprocessor, along
with some type of computer memory, typically semiconductor memory chips. The pro
cessing element carries out arithmetic and logical operations, and a sequencing
and control unit can change the order of operations in response to stored inform
ation. Peripheral devices include input devices (keyboards, mice, joystick, etc.
), output devices (monitor screens, printers, etc.), and input/output devices th
```
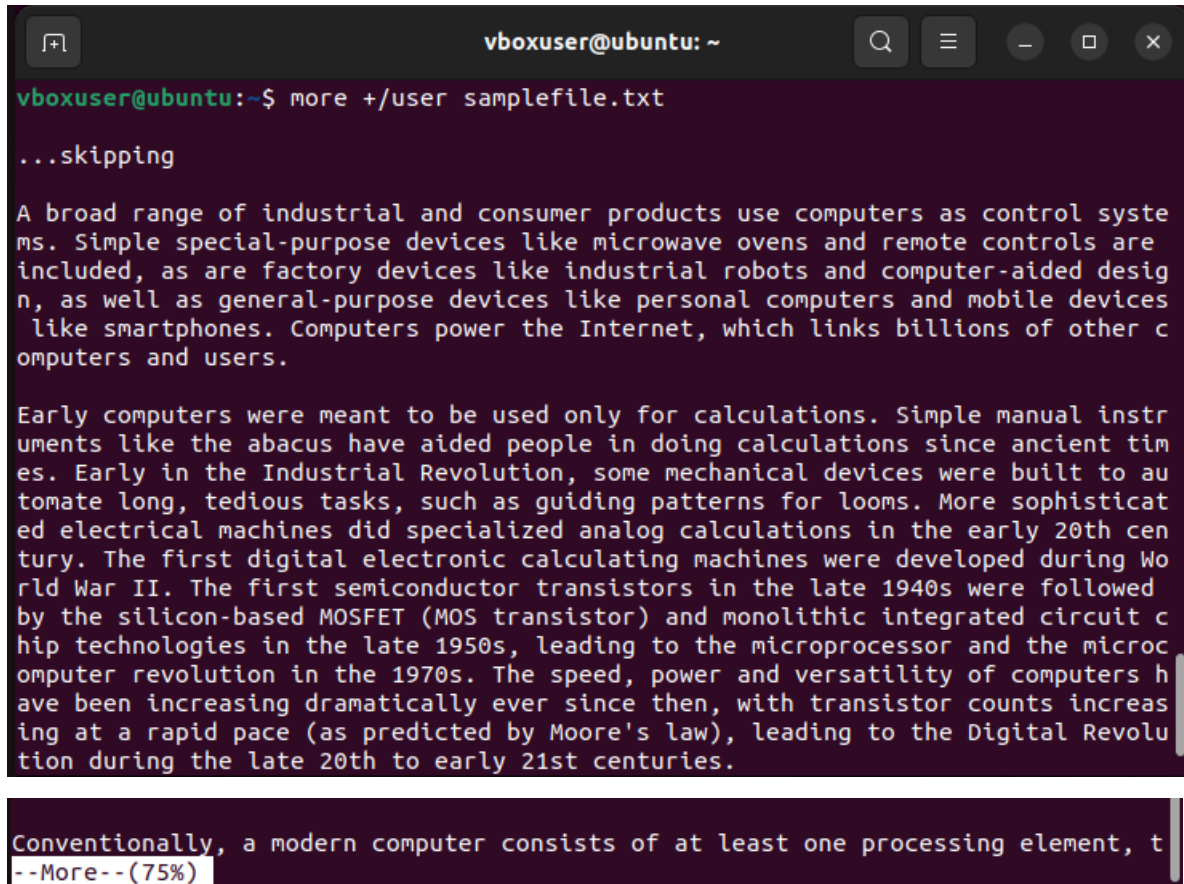
```
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and control unit can change the order of operations in response to stored inform
ation. Peripheral devices include input devices (keyboards, mice, joystick, etc.
), output devices (monitor screens, printers, etc.), and input/output devices th
at perform both functions (e.g., the 2000s-era touchscreen). Peripheral devices
allow information to be retrieved from an external source and they enable the re
--More--(98%)
```

4.2) more +/[pattern] [filename]

    This option is used to search the string inside your text document. You can view all the instances by navigating through the results.

$ more +/computer samplefile.txt

Output

```
vboxuser@ubuntu: ~

vboxuser@ubuntu:~$ more +/user samplefile.txt

...skipping

A broad range of industrial and consumer products use computers as control syste
ms. Simple special-purpose devices like microwave ovens and remote controls are
included, as are factory devices like industrial robots and computer-aided desig
n, as well as general-purpose devices like personal computers and mobile devices
 like smartphones. Computers power the Internet, which links billions of other c
omputers and users.

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tion during the late 20th to early 21st centuries.

Conventionally, a modern computer consists of at least one processing element, t
--More--(75%)
```

4.3) more –d [filename]

To help users to navigate through file according to the instruction. Displays "space to continue, 'q' to quit".

$more –d samplefile.txt

Output

```
vboxuser@ubuntu:~$ more -d samplefile.txt
A computer is a machine that can be programmed to carry out sequences of arithme
tic or logical operations (computation) automatically. Modern digital electronic
 computers can perform generic sets of operations known as programs. These progr
ams enable computers to perform a wide range of tasks. A computer system is a no
minally complete computer that includes the hardware, operating system (main sof
tware), and peripheral equipment needed and used for full operation. This term m
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tury. The first digital electronic calculating machines were developed during Wo
rld War II. The first semiconductor transistors in the late 1940s were followed
--More--(56%)[Press space to continue, 'q' to quit.]
```

Result

The program has been executed and output has been verified.