

LINUX SHELL SCRIPT



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LINUX

Computer *operating system* assembled under the model of *free and open-source* software development and distribution.



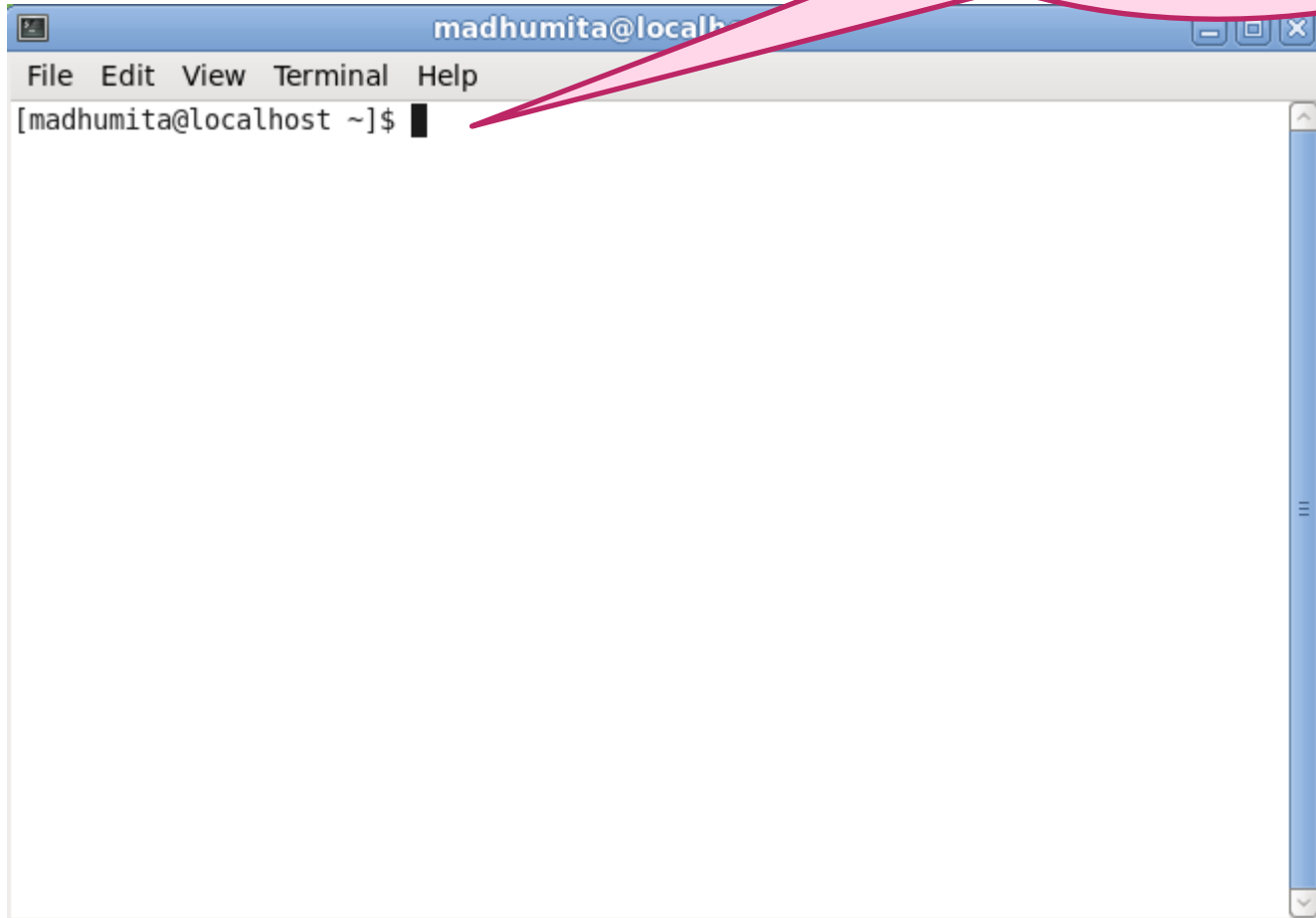
Linus Torvalds,
principal author of the
Linux kernel

LINUX SHELL

A Linux shell is a command-line interpreter or shell that provides a traditional user interface for the Linux operating system and for Unix-like systems.

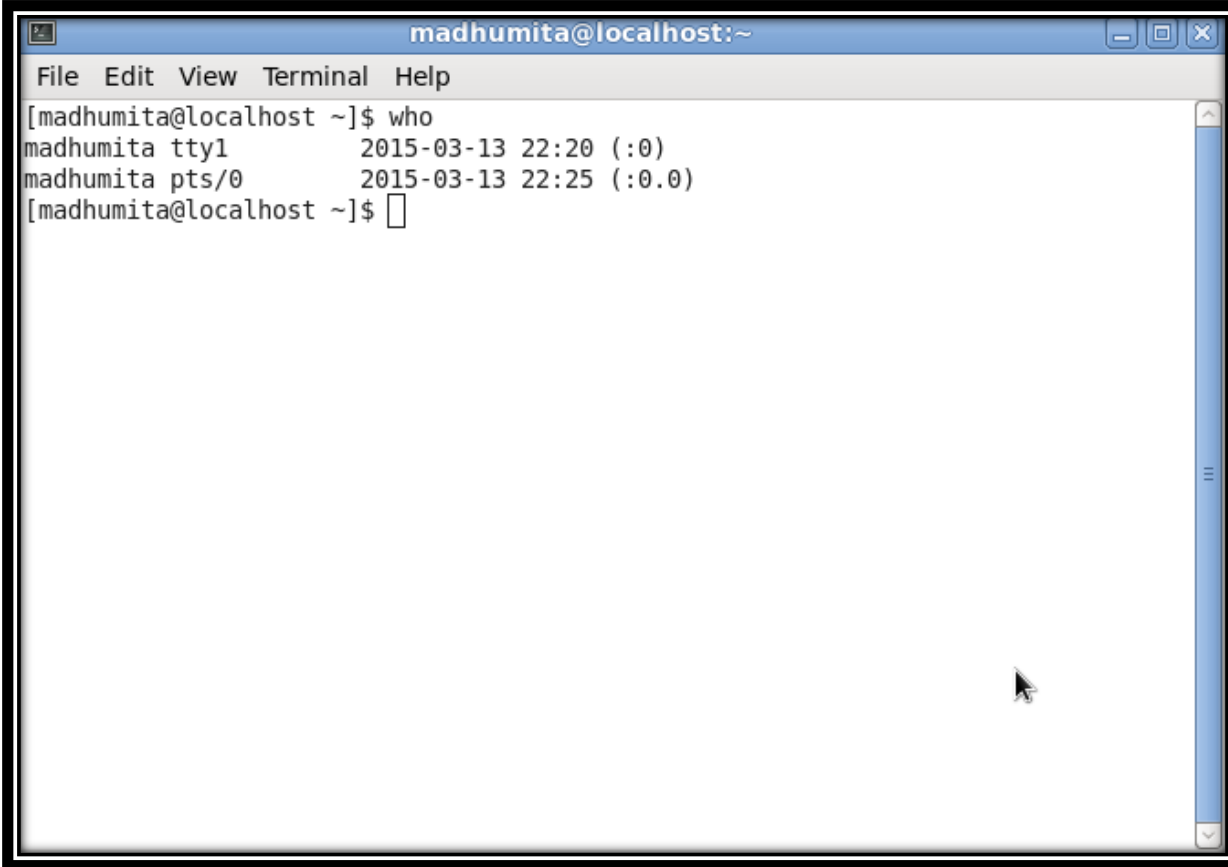
LINUX COMMAND

Command Prompt



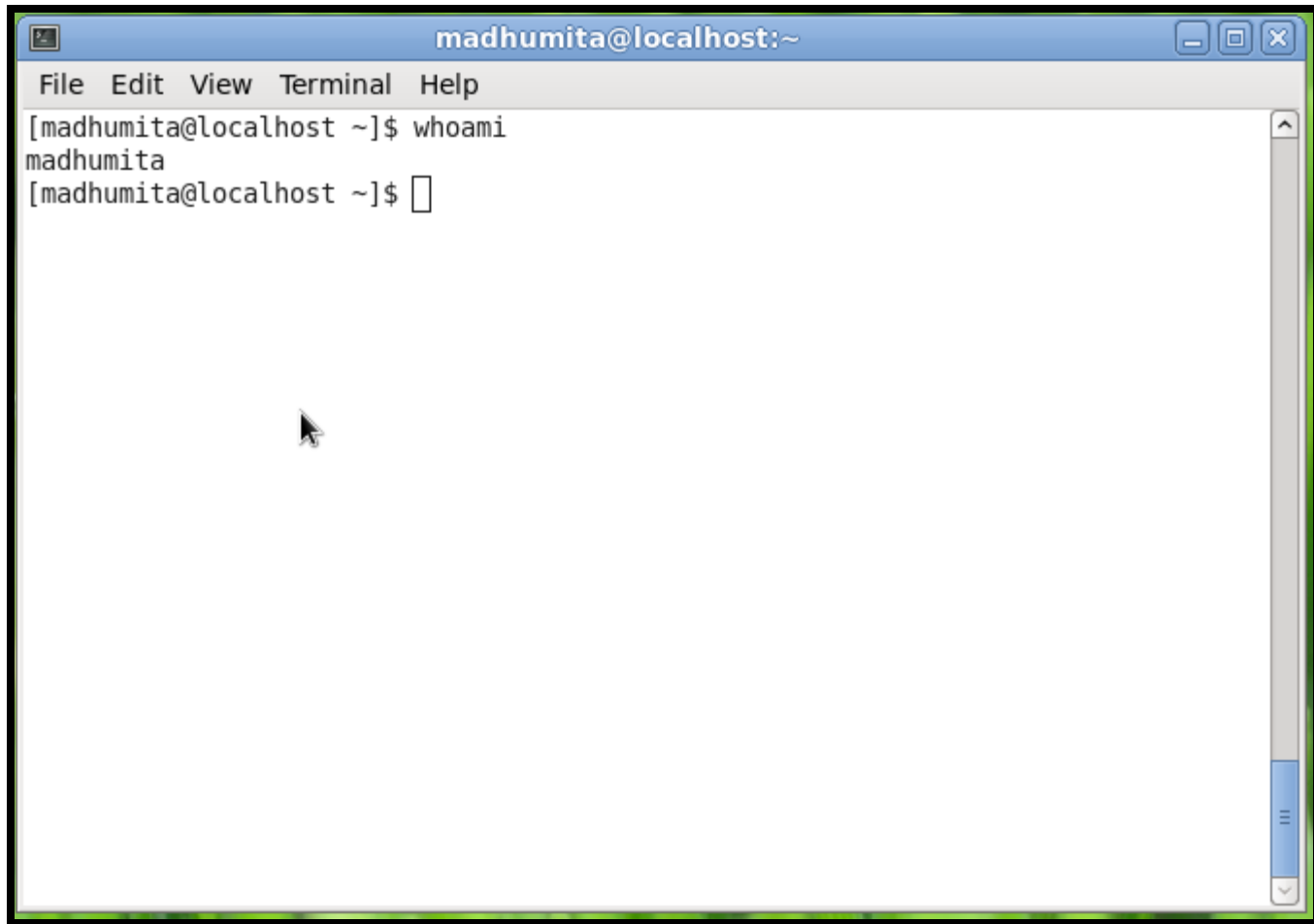
LINUX SHELL COMMAND(S)

1. who



```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ who  
madhumita tty1      2015-03-13 22:20 (:0)  
madhumita pts/0    2015-03-13 22:25 (:0.0)  
[madhumita@localhost ~]$
```

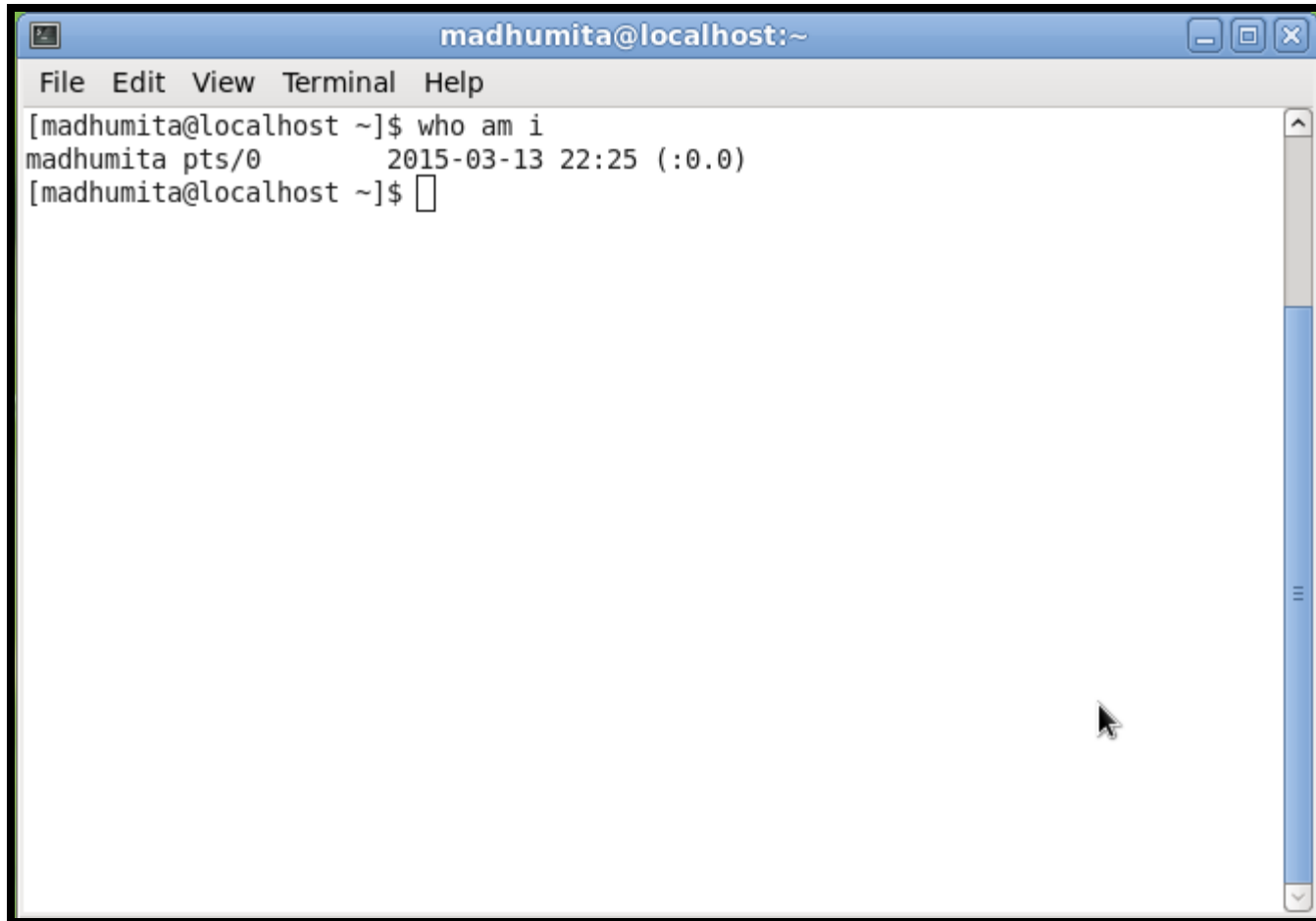
2. whoami



A terminal window titled "madhumita@localhost:~" with a menu bar containing "File", "Edit", "View", "Terminal", and "Help". The terminal shows the command `whoami` being executed, resulting in the output `madhumita`. The prompt `[madhumita@localhost ~]$` is visible before and after the command.

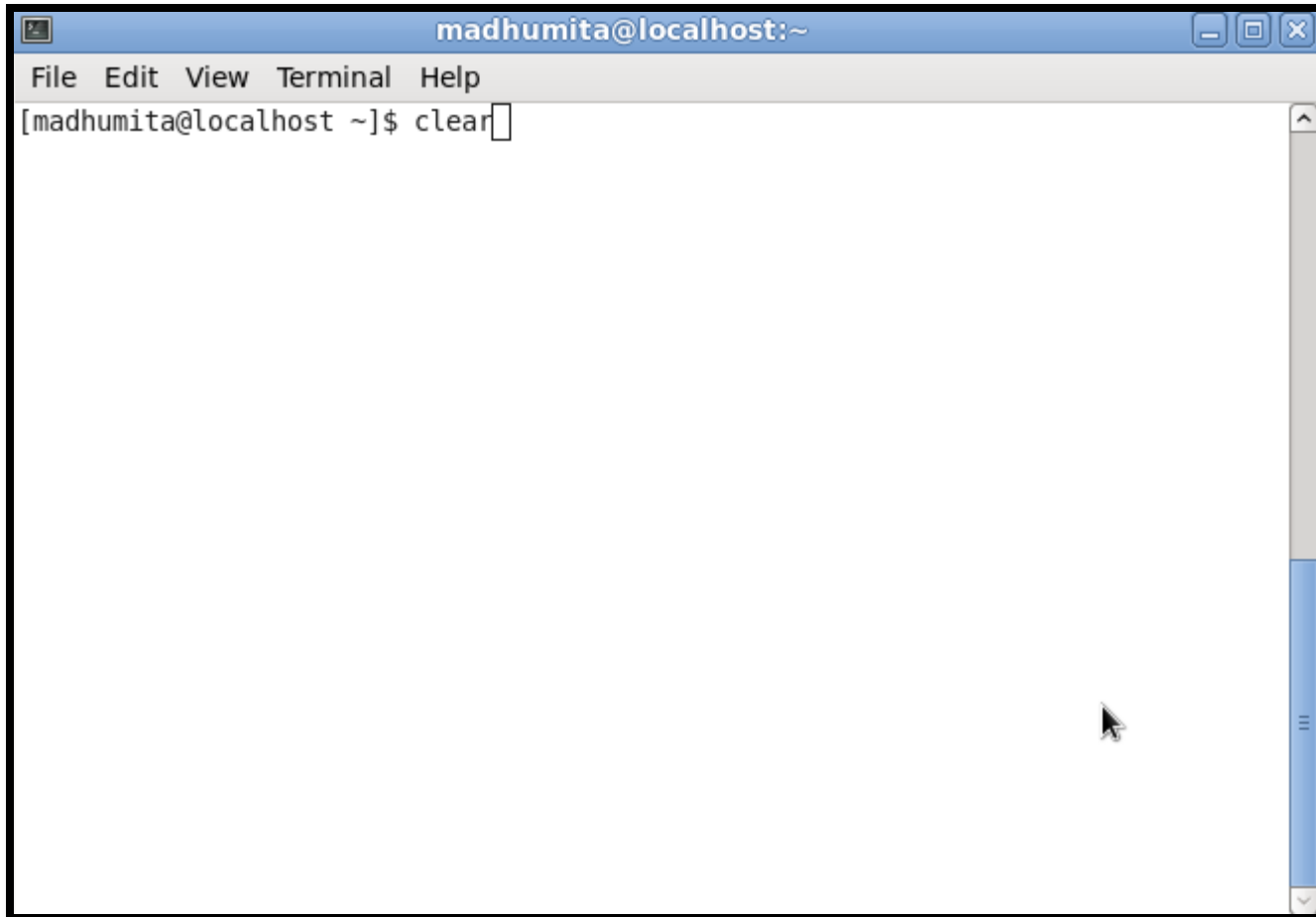
```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ whoami  
madhumita  
[madhumita@localhost ~]$
```

Another version of “who am i” *with space*



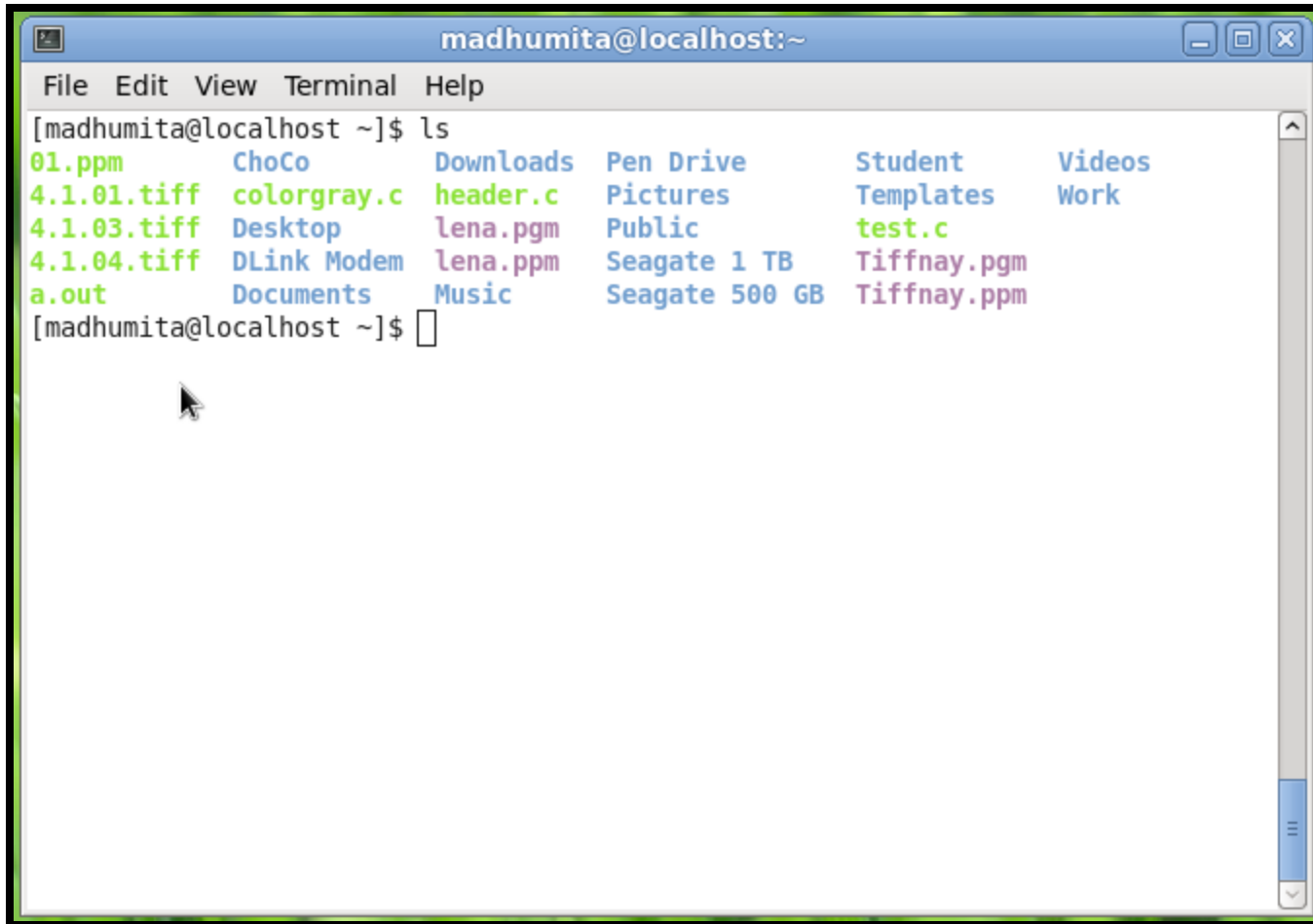
```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ who am i  
madhumita pts/0      2015-03-13 22:25 (:0.0)  
[madhumita@localhost ~]$
```


3. clear



A terminal window titled "madhumita@localhost:~" with a menu bar containing "File Edit View Terminal Help". The prompt is "[madhumita@localhost ~]\$ clear" followed by a cursor. The terminal area is mostly blank, indicating the command has been executed and the screen cleared.

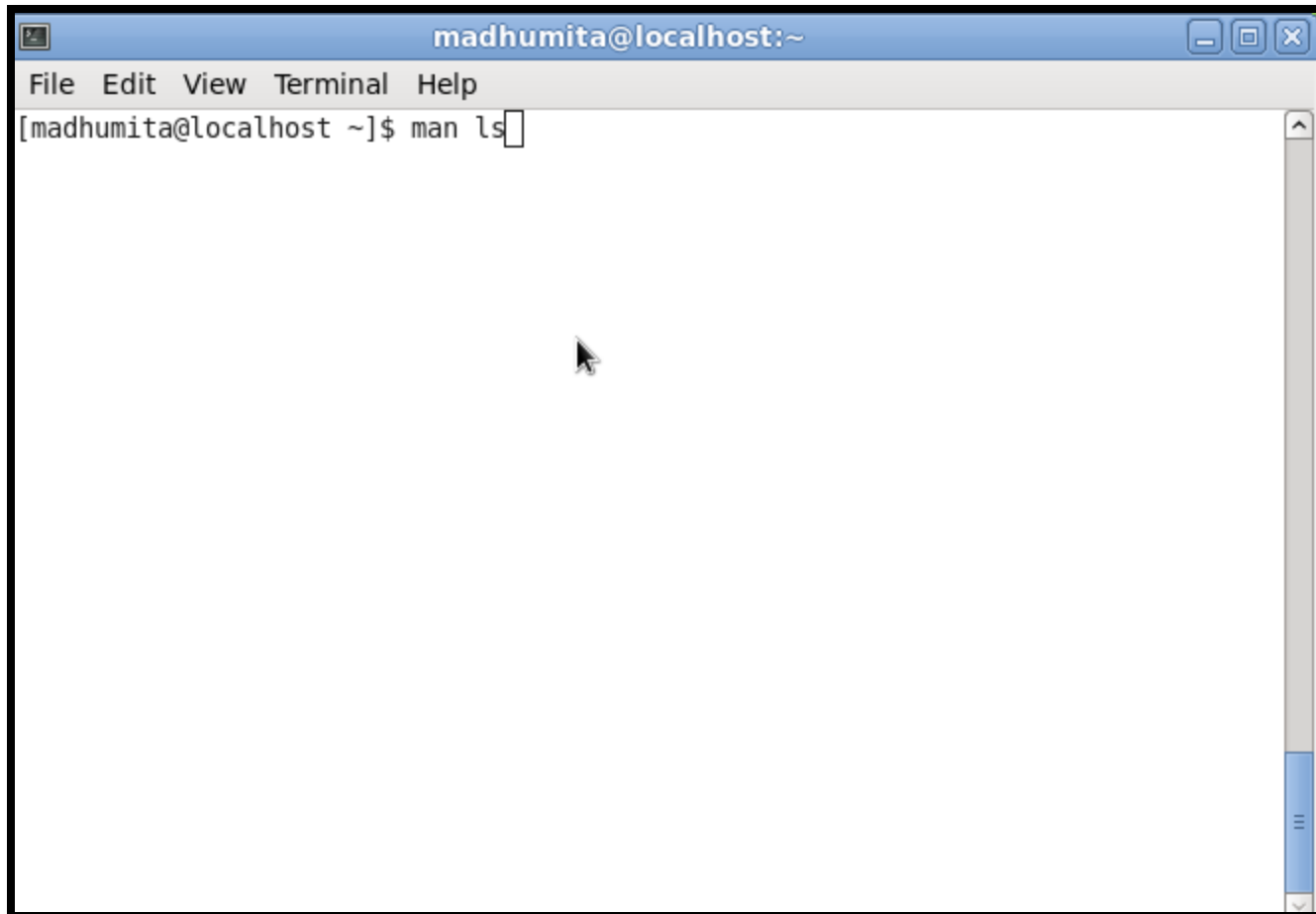
4. ls



A terminal window titled "madhumita@localhost:~" showing the output of the "ls" command. The output lists files and directories in a multi-column format. The files are color-coded: green for image files (.ppm, .tiff, .out), blue for directories, and purple for other files (.c, .pgm, .ppm). The prompt "[madhumita@localhost ~]\$" is shown at the beginning and end of the output.

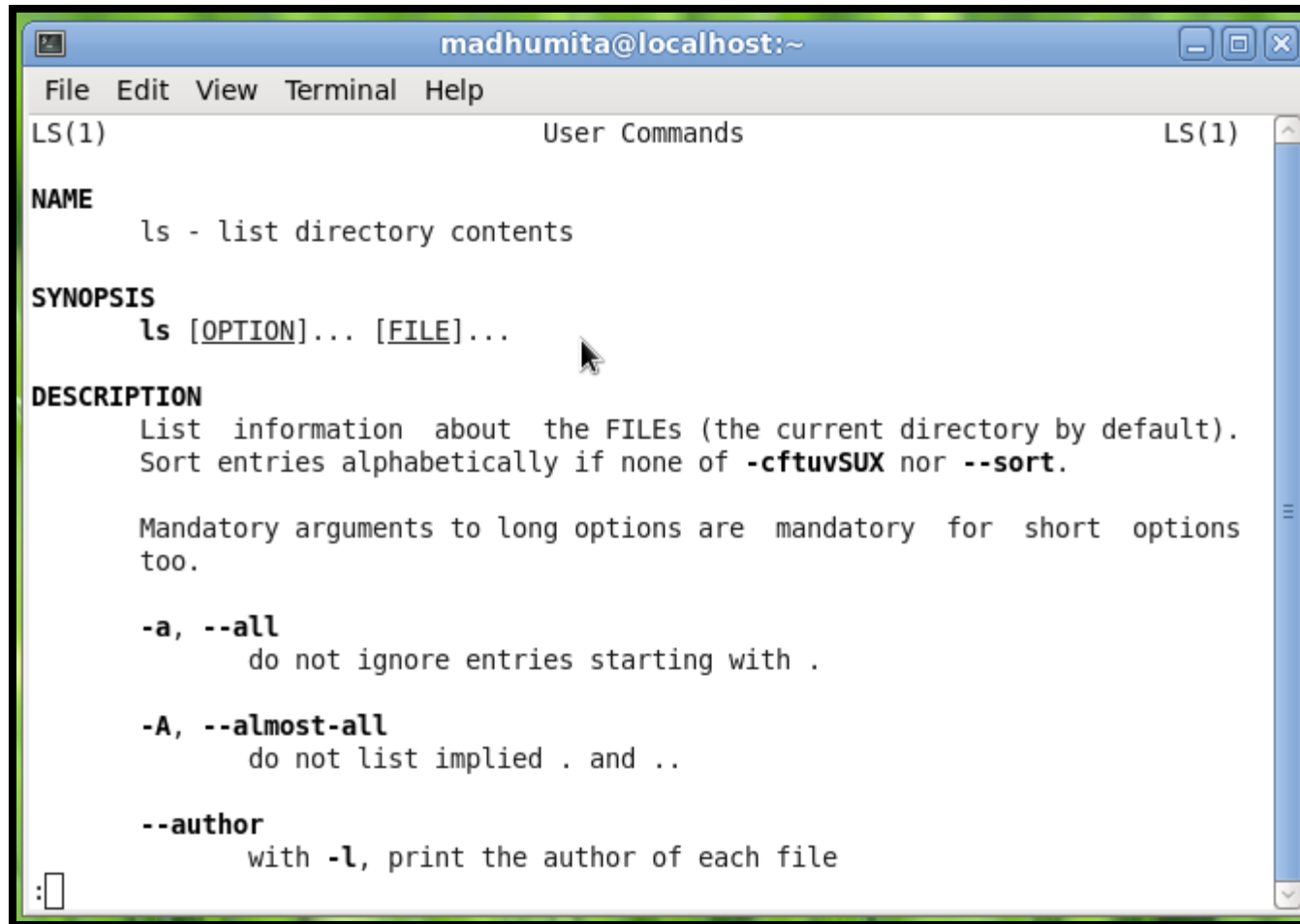
```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ ls  
01.ppm          ChoCo          Downloads      Pen Drive      Student        Videos  
4.1.01.tiff     colorgray.c    header.c       Pictures        Templates      Work  
4.1.03.tiff     Desktop        lena.pgm       Public          test.c  
4.1.04.tiff     DLink Modem    lena.ppm       Seagate 1 TB   Tiffnay.pgm  
a.out          Documents      Music          Seagate 500 GB Tiffnay.ppm  
[madhumita@localhost ~]$
```

5. man



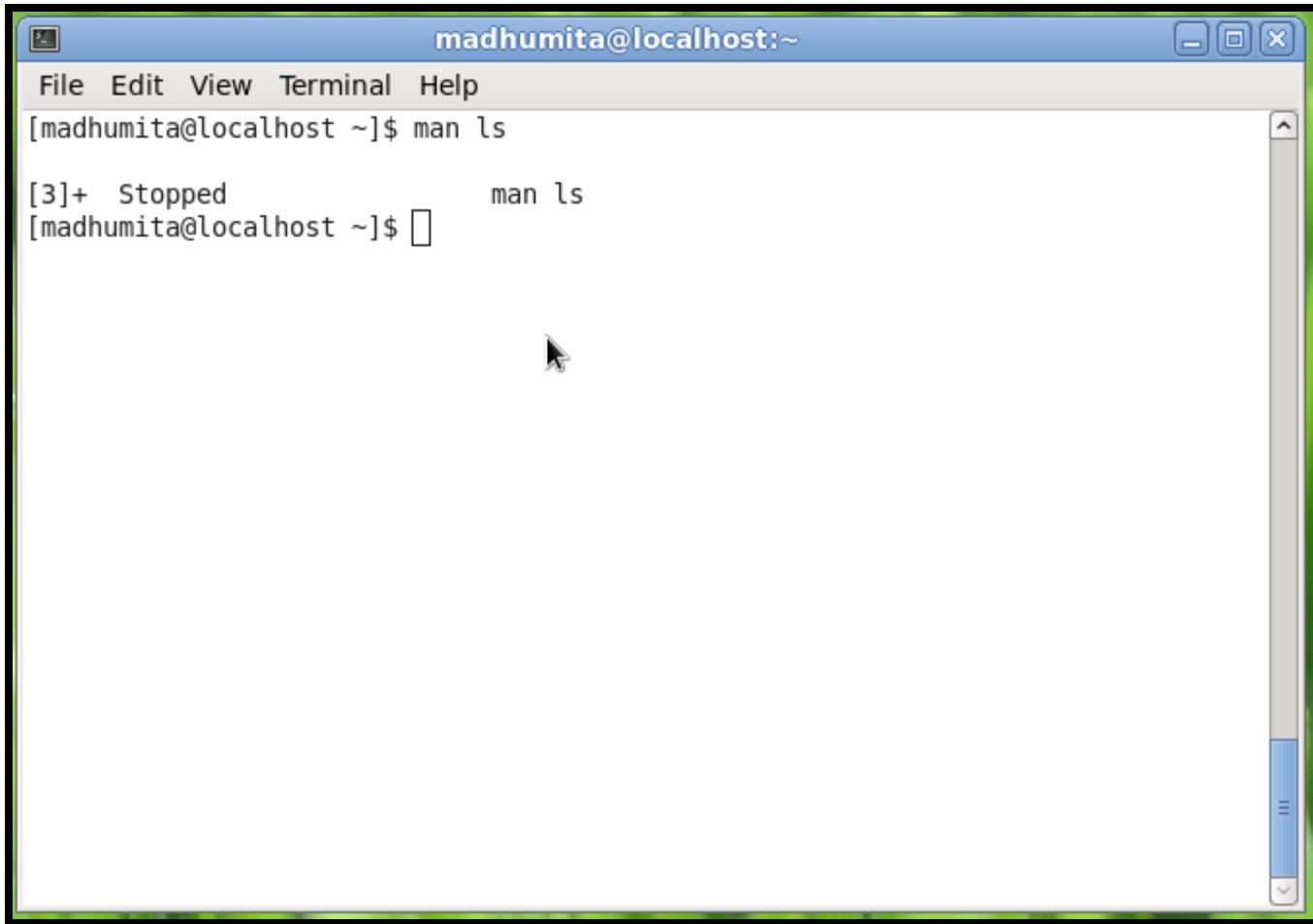
A terminal window titled "madhumita@localhost:~" with a menu bar containing "File Edit View Terminal Help". The prompt is "[madhumita@localhost ~]\$ man ls" followed by a cursor. The terminal is otherwise empty.

Output of “man ls”



```
madhumita@localhost:~  
File Edit View Terminal Help  
LS(1) User Commands LS(1)  
NAME  
ls - list directory contents  
SYNOPSIS  
ls [OPTION]... [FILE]...  
DESCRIPTION  
List information about the FILEs (the current directory by default).  
Sort entries alphabetically if none of -cftuvSUX nor --sort.  
  
Mandatory arguments to long options are mandatory for short options  
too.  
  
-a, --all  
do not ignore entries starting with .  
  
-A, --almost-all  
do not list implied . and ..  
  
--author  
with -l, print the author of each file  
:█
```

End “man ls” by “ctrl+z”

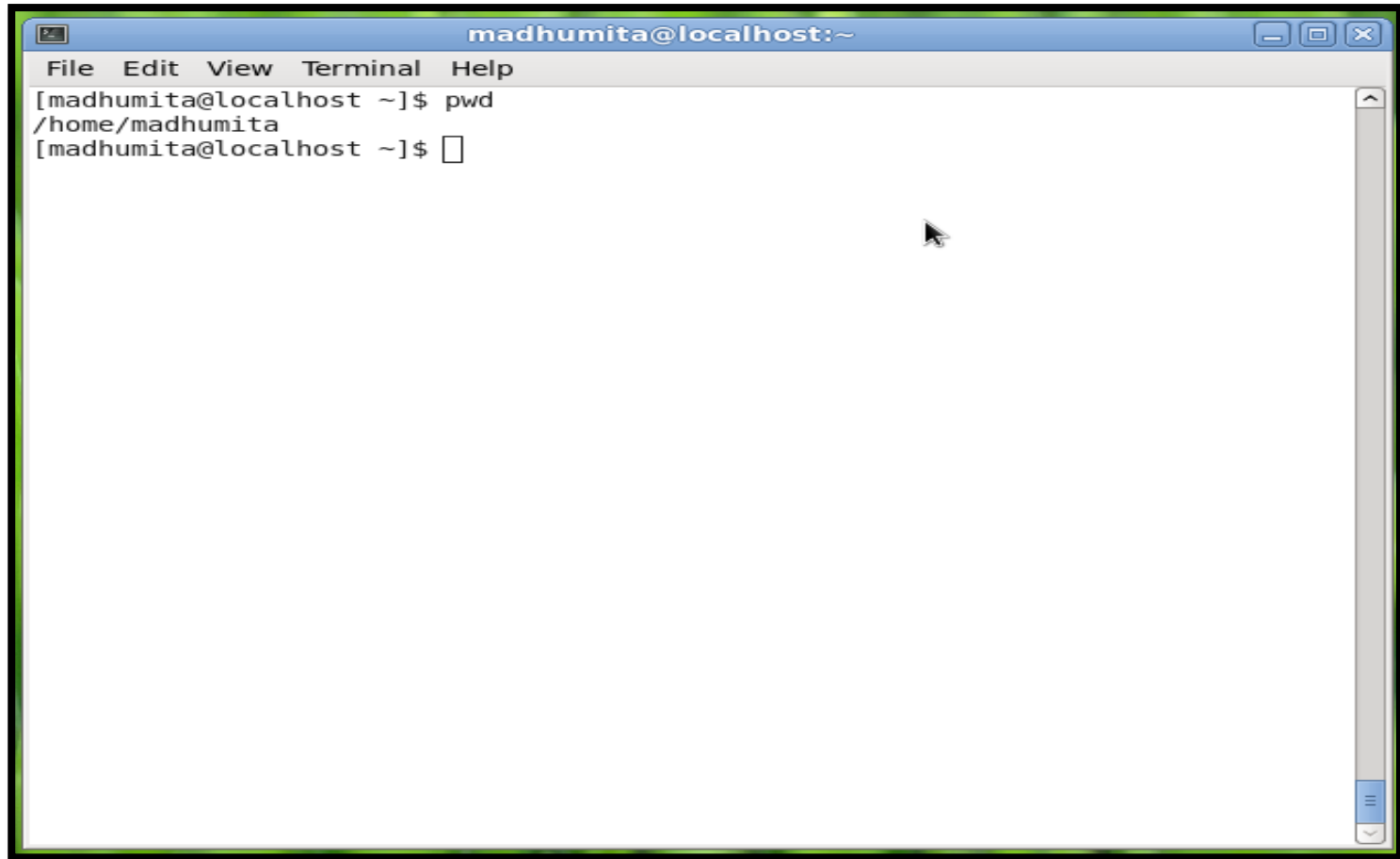


```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ man ls  
[3]+ Stopped man ls  
[madhumita@localhost ~]$
```

6. Ls -l

```
madhumita@localhost:~  
File Edit View Terminal Help  
a.out Documents Music Seagate 500 GB Tiffnay.ppm  
[madhumita@localhost ~]$ ls -l  
total 1764  
-rwxr-xr-x. 1 madhumita madhumita 603669 Dec 29 22:29 01.ppm  
-rwxrwxrwx. 1 madhumita madhumita 196748 Sep 26 1997 4.1.01.tiff  
-rwxrwxrwx. 1 madhumita madhumita 196748 Sep 26 1997 4.1.03.tiff  
-rwxrwxrwx. 1 madhumita madhumita 196748 Sep 26 1997 4.1.04.tiff  
-rwxrwxr-x. 1 madhumita madhumita 6347 Jan 13 16:48 a.out  
drwxrwxr-x. 3 madhumita madhumita 4096 Apr 12 2013 ChoCo  
-rwxr-xr-x. 1 madhumita madhumita 1957 Jan 5 20:35 colorgray.c  
drwxr-xr-x. 3 madhumita madhumita 4096 Mar 13 22:29 Desktop  
drwxrwxr-x. 3 madhumita madhumita 4096 Aug 19 2012 DLink Modem  
drwxr-xr-x. 2 madhumita madhumita 4096 Jan 3 2013 Documents  
drwxr-xr-x. 2 madhumita madhumita 4096 Nov 12 16:21 Downloads  
-rwxr-xr-x. 1 madhumita madhumita 1332 Jan 5 20:25 header.c  
-rw-r--r--. 1 madhumita madhumita 59499 Dec 24 14:30 lena.pgm  
-rw-r--r--. 1 madhumita madhumita 178278 Dec 24 14:30 lena.ppm  
drwxr-xr-x. 2 madhumita madhumita 4096 May 2 2012 Music  
drwxrwxr-x. 14 madhumita madhumita 4096 Nov 13 2013 Pen Drive  
drwxr-xr-x. 2 madhumita madhumita 4096 May 2 2012 Pictures  
drwxr-xr-x. 2 madhumita madhumita 4096 May 2 2012 Public  
drwxrwxr-x. 5 madhumita madhumita 4096 Jan 5 2013 Seagate 1 TB  
drwx-----. 5 madhumita madhumita 4096 Jul 10 2011 Seagate 500 GB  
drwxrwxr-x. 3 madhumita madhumita 4096 Mar 9 2013 Student  
drwxr-xr-x. 2 madhumita madhumita 4096 May 2 2012 Templates  
-rwxrwxrwx. 1 madhumita madhumita 3939 Jan 20 23:00 test.c  
-rw-r--r--. 1 madhumita madhumita 65579 Dec 24 14:31 Tiffnay.pgm  
-rw-r--r--. 1 madhumita madhumita 196630 Dec 24 14:31 Tiffnay.ppm  
drwxr-xr-x. 2 madhumita madhumita 4096 May 2 2012 Videos  
drwxrwxr-x. 38 madhumita madhumita 4096 Sep 3 2014 Work  
[madhumita@localhost ~]$
```

7. Pwd → Current directory

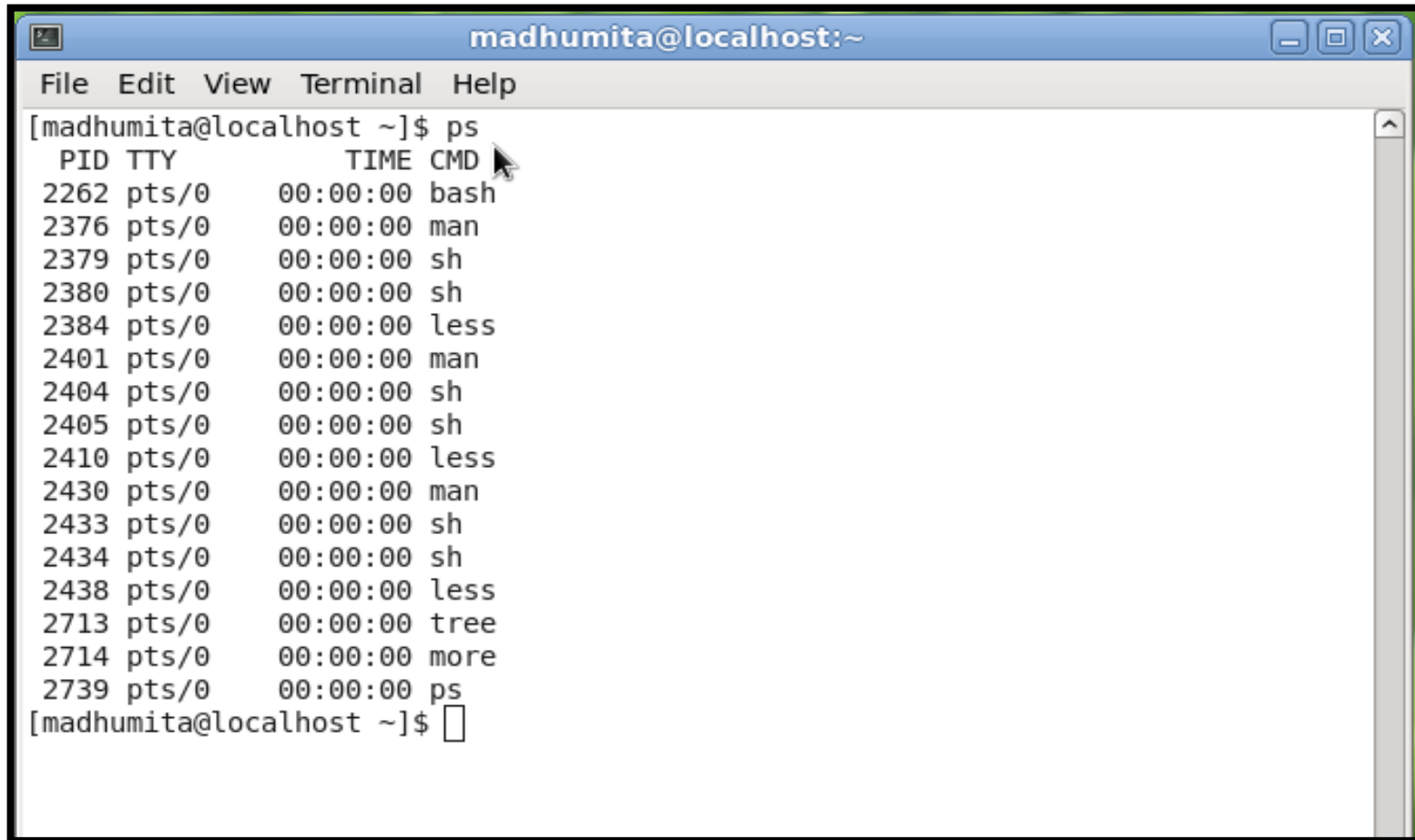


A terminal window titled "madhumita@localhost:~" with a menu bar containing "File", "Edit", "View", "Terminal", and "Help". The terminal shows the following text:

```
[madhumita@localhost ~]$ pwd
/home/madhumita
[madhumita@localhost ~]$
```

The terminal window has a mouse cursor pointing to the right. The window title bar includes standard minimize, maximize, and close buttons.

8. ps



A terminal window titled "madhumita@localhost:~" showing the output of the "ps" command. The window has a menu bar with "File", "Edit", "View", "Terminal", and "Help". The terminal output is as follows:

```
[madhumita@localhost ~]$ ps
  PID TTY          TIME CMD
 2262 pts/0    00:00:00 bash
 2376 pts/0    00:00:00 man
 2379 pts/0    00:00:00 sh
 2380 pts/0    00:00:00 sh
 2384 pts/0    00:00:00 less
 2401 pts/0    00:00:00 man
 2404 pts/0    00:00:00 sh
 2405 pts/0    00:00:00 sh
 2410 pts/0    00:00:00 less
 2430 pts/0    00:00:00 man
 2433 pts/0    00:00:00 sh
 2434 pts/0    00:00:00 sh
 2438 pts/0    00:00:00 less
 2713 pts/0    00:00:00 tree
 2714 pts/0    00:00:00 more
 2739 pts/0    00:00:00 ps
[madhumita@localhost ~]$
```

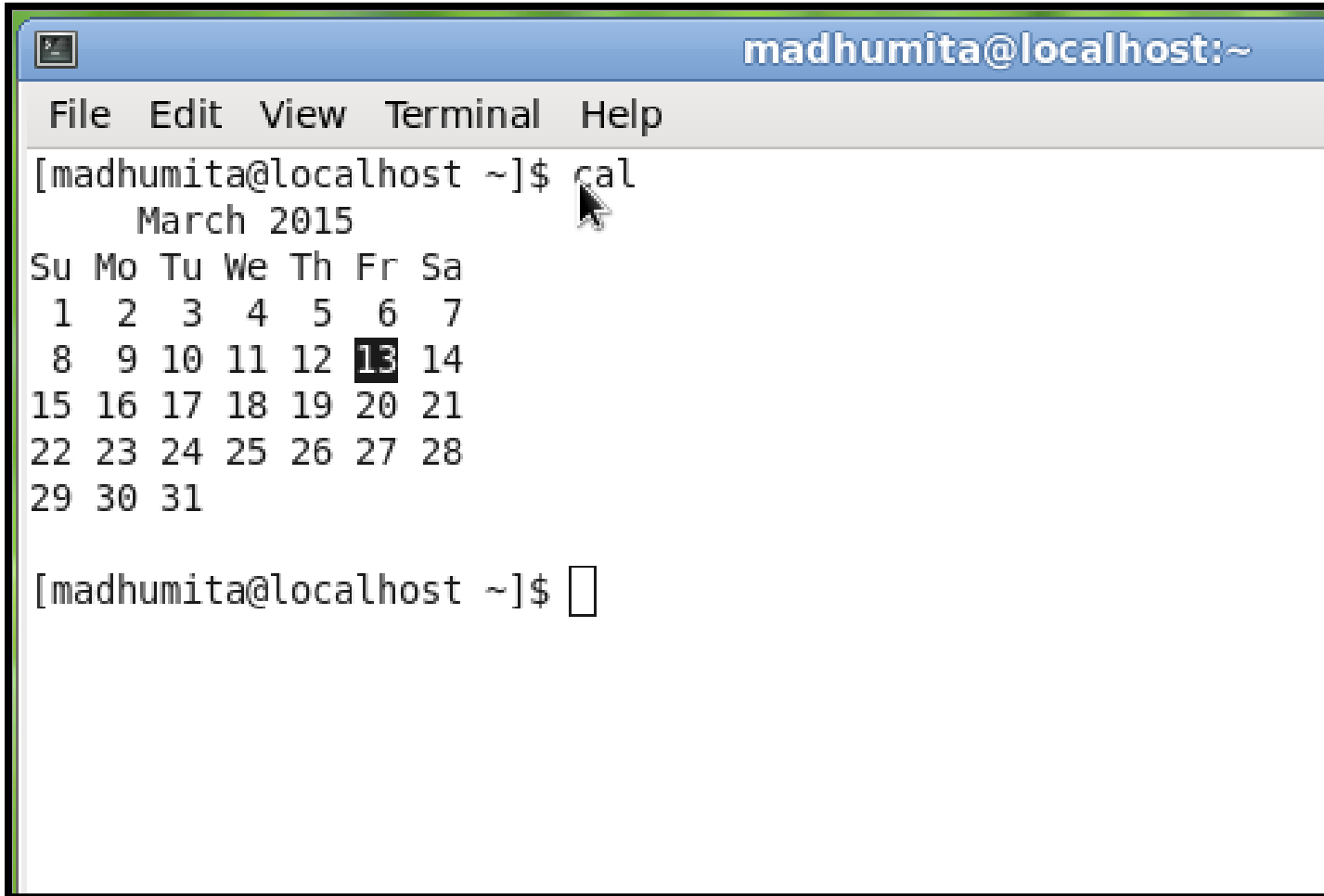

9. time and date

```
madhumita@localh...
File Edit View Terminal Help
[madhumita@localhost ~]$ time
real    0m0.000s
user    0m0.000s
sys     0m0.000s
[madhumita@localhost ~]$ date
Fri Mar 13 22:37:40 IST 2015
[madhumita@localhost ~]$
```

System time

Current date and time

10. Cal → show calendar as required



```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ cal  
    March 2015  
Su Mo Tu We Th Fr Sa  
  1  2  3  4  5  6  7  
  8  9 10 11 12 13 14  
15 16 17 18 19 20 21  
22 23 24 25 26 27 28  
29 30 31  
  
[madhumita@localhost ~]$
```

Cal -3 → previous, current and next month

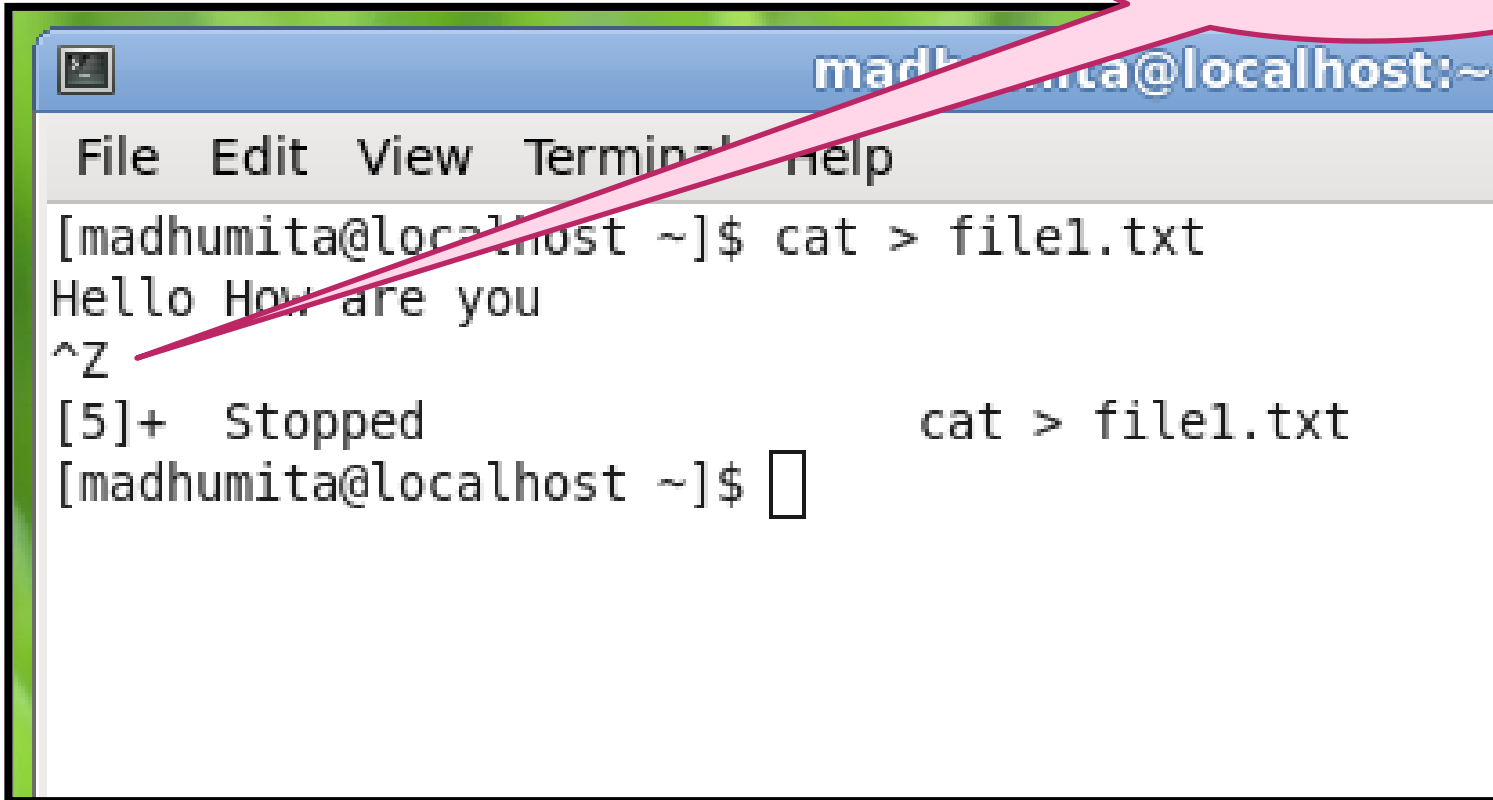
```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ cal -3  
    February 2015          March 2015          April 2015  
Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa  
  1  2  3  4  5  6  7   1  2  3  4  5  6  7   5  6  7  8  9 10 11  
  8  9 10 11 12 13 14   8  9 10 11 12 13 14   12 13 14 15 16 17 18  
 15 16 17 18 19 20 21   15 16 17 18 19 20 21   19 20 21 22 23 24 25  
 22 23 24 25 26 27 28   22 23 24 25 26 27 28   26 27 28 29 30  
                               29 30 31  
  
[madhumita@localhost ~]$
```

Cal year → 12 month calendar for the given year

```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ cal 2015  
2015  
  
    January                February                March  
Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa  
                1 2 3           1 2 3 4 5 6 7           1 2 3 4 5 6 7  
    4 5 6 7 8 9 10       8 9 10 11 12 13 14       8 9 10 11 12 13 14  
11 12 13 14 15 16 17     15 16 17 18 19 20 21       15 16 17 18 19 20 21  
18 19 20 21 22 23 24     22 23 24 25 26 27 28       22 23 24 25 26 27 28  
25 26 27 28 29 30 31     29 30 31  
  
    April                  May                  June  
Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa  
                1 2 3 4           1 2           1 2 3 4 5 6  
    5 6 7 8 9 10 11       3 4 5 6 7 8 9           7 8 9 10 11 12 13  
12 13 14 15 16 17 18     10 11 12 13 14 15 16       14 15 16 17 18 19 20  
19 20 21 22 23 24 25     17 18 19 20 21 22 23       21 22 23 24 25 26 27  
26 27 28 29 30           24 25 26 27 28 29 30  
31  
  
    July                  August                September  
Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa  
                1 2 3 4           1           1 2 3 4 5  
    5 6 7 8 9 10 11       2 3 4 5 6 7 8           6 7 8 9 10 11 12  
12 13 14 15 16 17 18     9 10 11 12 13 14 15       13 14 15 16 17 18 19  
19 20 21 22 23 24 25     16 17 18 19 20 21 22       20 21 22 23 24 25 26  
26 27 28 29 30 31       23 24 25 26 27 28 29       27 28 29 30  
30 31  
  
    October                November                December  
Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa   Su Mo Tu We Th Fr Sa  
                1 2 3           1 2 3 4 5 6 7           1 2 3 4 5  
    4 5 6 7 8 9 10       8 9 10 11 12 13 14       6 7 8 9 10 11 12  
11 12 13 14 15 16 17     15 16 17 18 19 20 21       13 14 15 16 17 18 19  
18 19 20 21 22 23 24     22 23 24 25 26 27 28       20 21 22 23 24 25 26  
25 26 27 28 29 30 31     29 30           27 28 29 30 31  
  
[madhumita@localhost ~]$
```

11. cat with '>' to open a file and write

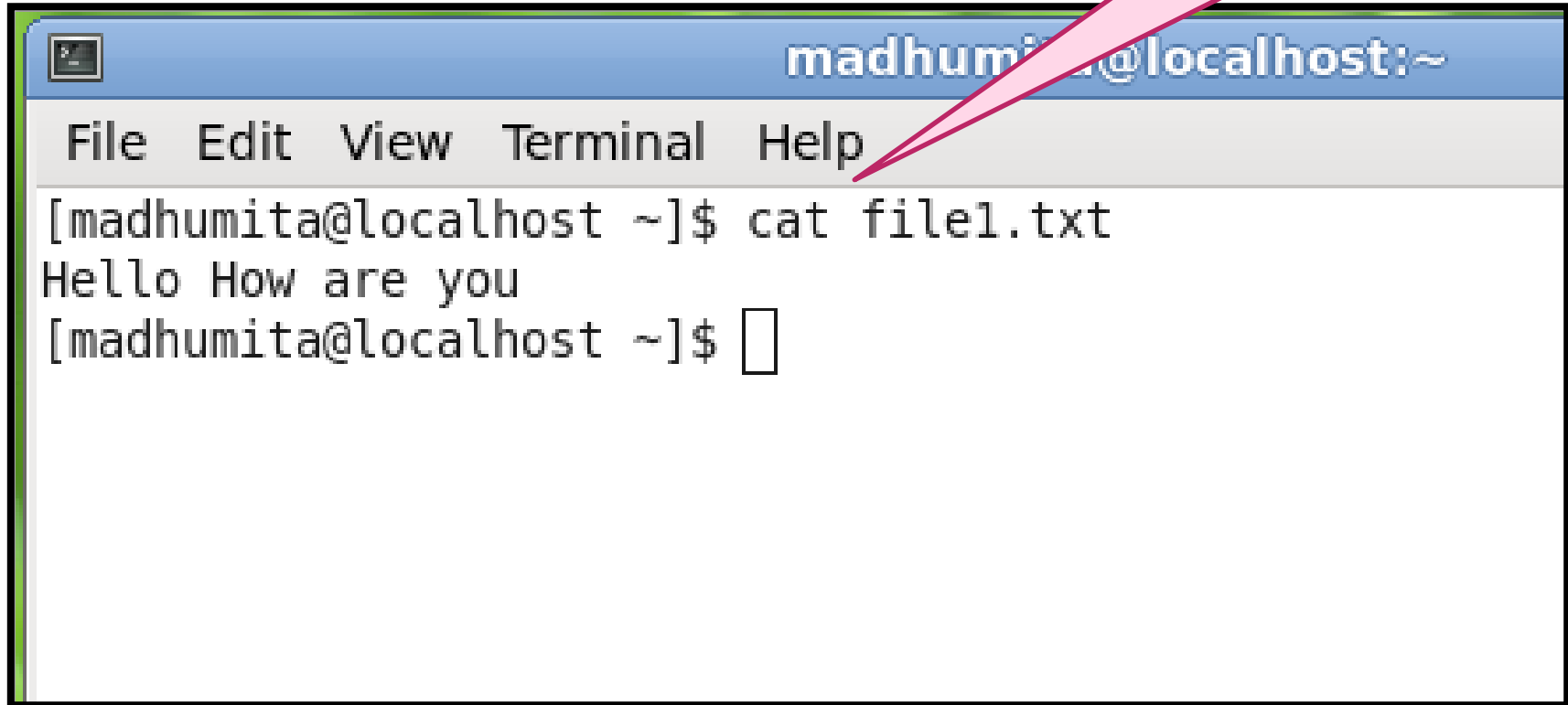
'ctrl+z' to save the file



```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ cat > file1.txt  
Hello How are you  
^Z  
[5]+ Stopped cat > file1.txt  
[madhumita@localhost ~]$
```

cat file name to see the content of the file

cat filename



```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ cat file1.txt  
Hello How are you  
[madhumita@localhost ~]$
```

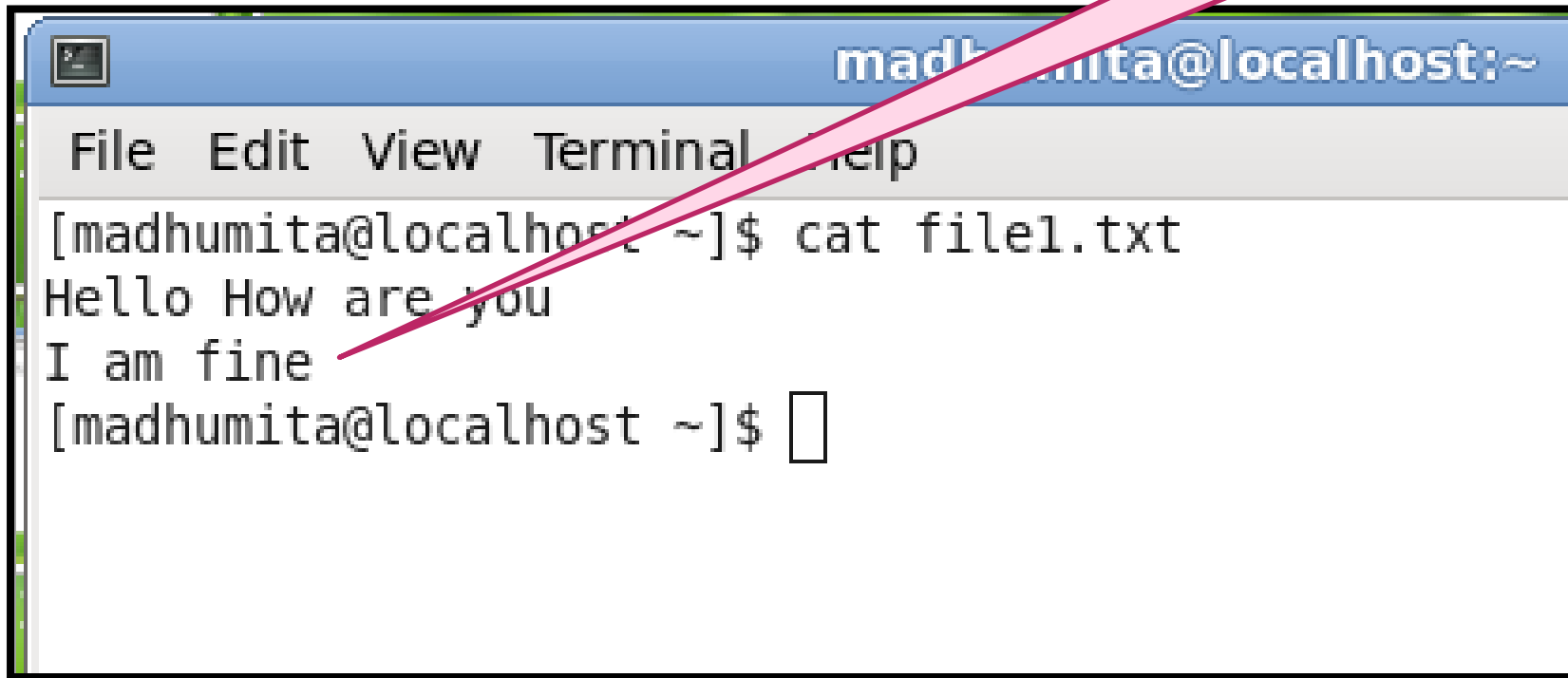
cat with '>>' to append new content

>> used to append

```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ cat >> file1.txt  
I am fine  
^Z  
[6]+ Stopped cat >> file1.txt  
[madhumita@localhost ~]$
```

Output after append through 'cat'

New line added



```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ cat file1.txt  
Hello How are you  
I am fine  
[madhumita@localhost ~]$
```


12. sort

create a file with few unsorted numbers

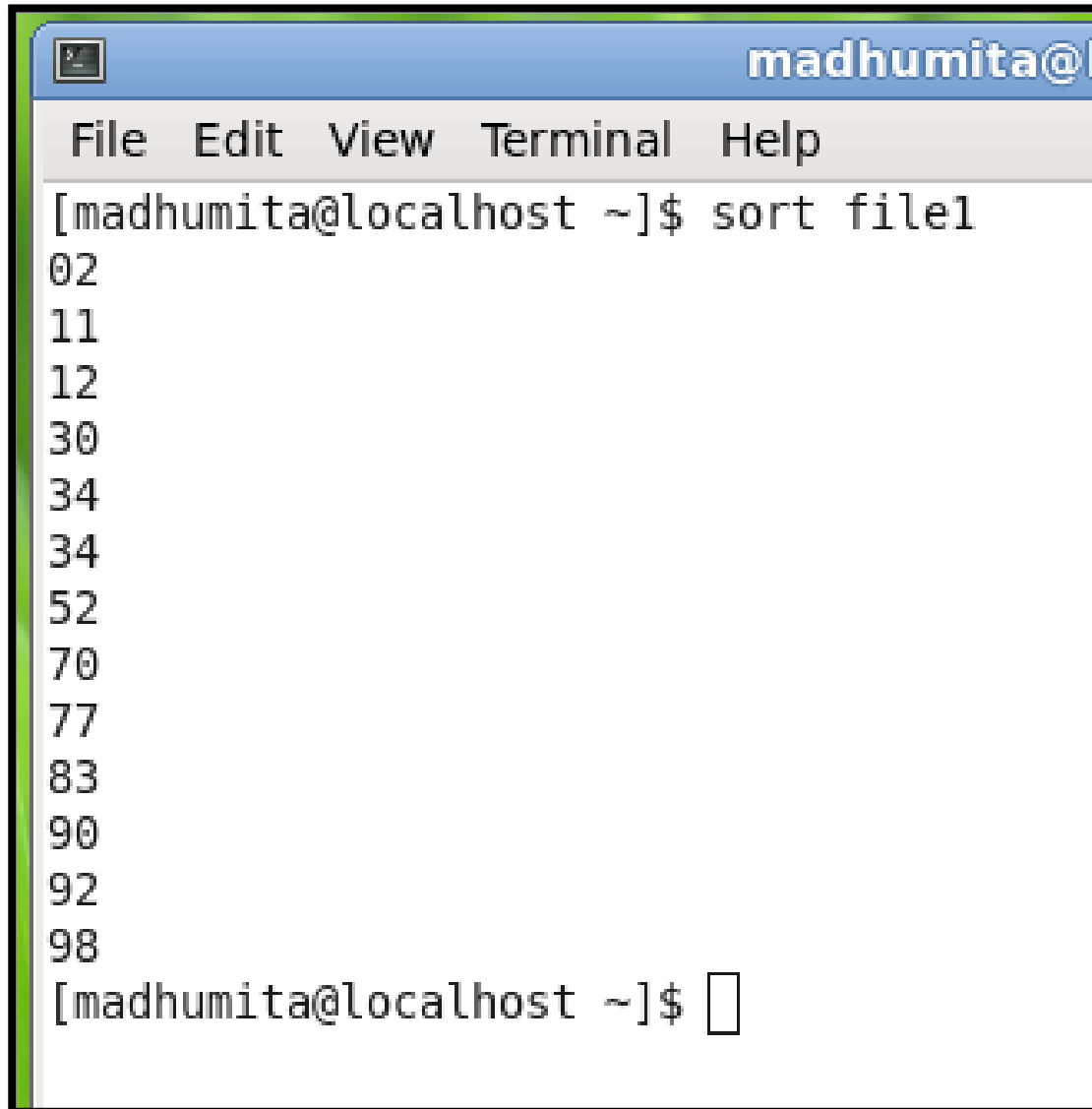
Check the content of the file

```
File Edit View Terminal Help
[madhumita@localhost ~]$ cat > file1
34
98
12
90
02
83
11
52
92
70
30
34
77
^Z
[7]+ Stopped
[madhumita@localhost ~]$ cat > file1
```

```
File Edit View Terminal Help
[madhumita@localhost ~]$ cat file1
34
98
12
90
02
83
11
52
92
70
30
34
77
[madhumita@localhost ~]$
```

Before sort command, create a file with cat command

sort command

A terminal window titled 'madhumita@l' with a menu bar containing 'File Edit View Terminal Help'. The prompt is '[madhumita@localhost ~]\$' and the command 'sort file1' has been executed. The output is a list of numbers: 02, 11, 12, 30, 34, 34, 52, 70, 77, 83, 90, 92, 98. The prompt is now '[madhumita@localhost ~]\$' with a cursor.

```
madhumita@l
File Edit View Terminal Help
[madhumita@localhost ~]$ sort file1
02
11
12
30
34
34
52
70
77
83
90
92
98
[madhumita@localhost ~]$
```

sort reverse command

'-r' used for reverse sort operation

```
[madhumita@localhost ~]$ sort -r file1
98
92
90
83
77
70
52
34
34
30
12
11
02
[madhumita@localhost ~]$
```

13. head → show lines from

head command by default shows top 10 lines

```
madhumita@l
File Edit View Terminal Help
[madhumita@localhost ~]$ cat file1
02
11
15
30
34
37
52
70
77
83
90
96
98
```

```
[madhumita@localhost ~]$ head file1
02
11
15
30
34
37
52
70
77
83
[madhumita@localhost ~]$
```

17-03-2015 j.k.m.soc@gmail.com

head → show only 3 lines from top of file

'-3' used to show top 3 lines only

```
File Edit View Terminal Help
[madhumita@localhost ~]$ cat file1
02
11
15
30
34
37
52
70
77
83
90
96
98
```

```
File Edit View Terminal Help
[madhumita@localhost ~]$ head -3 file1
02
11
15
[madhumita@localhost ~]$
```

14. tail → Show lines from

tail command by default shows bottom 10 lines

```
File Edit View Terminal Help
[madhumita@localhost ~]$ cat file1
02
11
15
30
34
37
52
70
77
83
90
96
98
```

```
[madhumita@localhost ~]$ tail file1
30
34
37
52
70
77
83
90
96
98
[madhumita@localhost ~]$
```

17-03-2015

jkm.cse@gmail.com

tail → Show 5 lines from bottom of file

```
File Edit View Terminal Help
[madhumita@localhost ~]$ cat file1
02
11
15
30
34
37
52
70
77
83
90
96
98
```

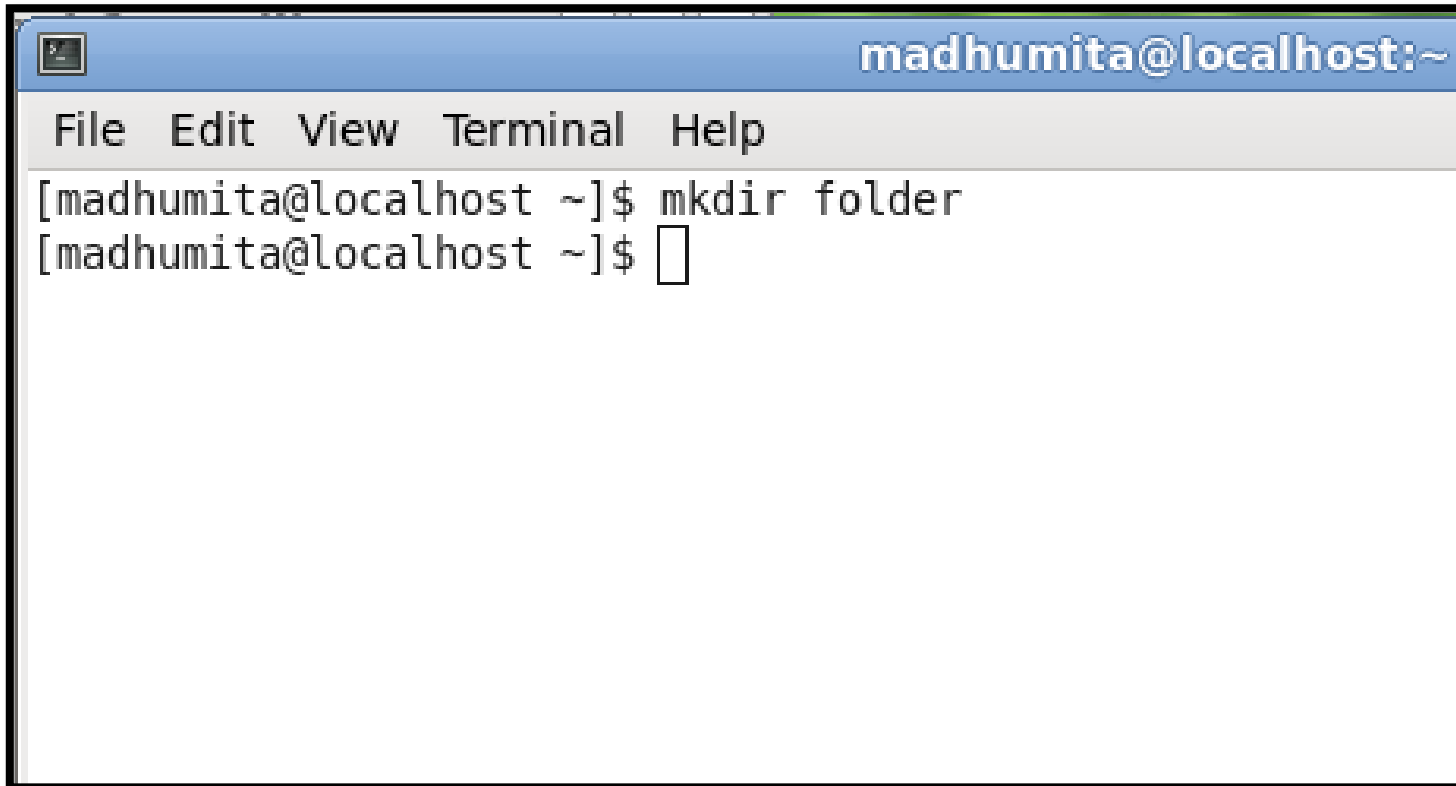
'-5' used to show bottom 5 lines only

```
File Edit View Terminal Help
[madhumita@localhost ~]$ tail -5 file1
77
83
90
96
98
[madhumita@localhost ~]$
```

17-03-2015

madhumita@gmail.com

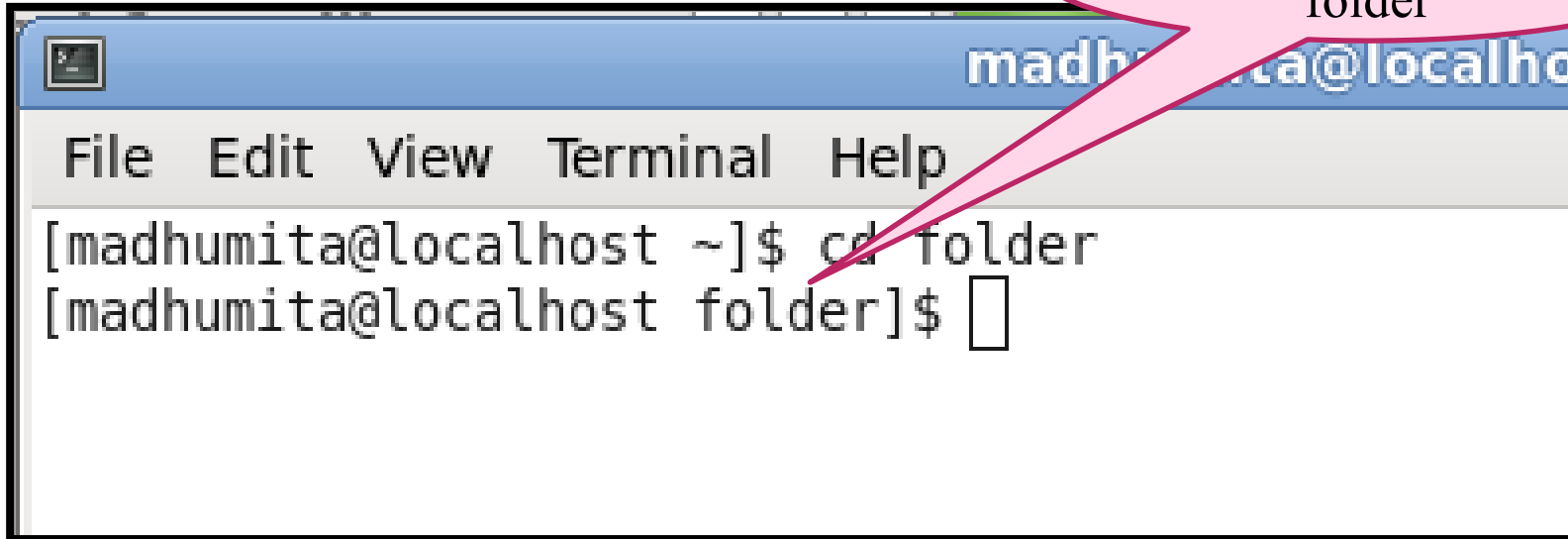
15. mkdir → To create directory



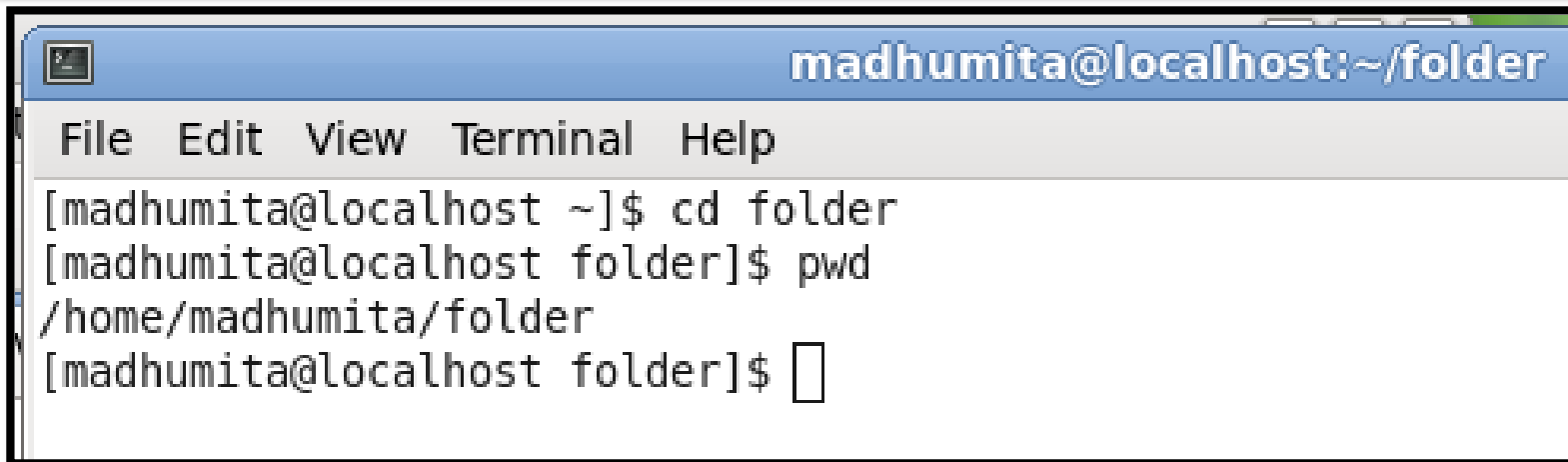
```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ mkdir folder  
[madhumita@localhost ~]$
```


16. cd → To change directory

Prompt change to
'folder'



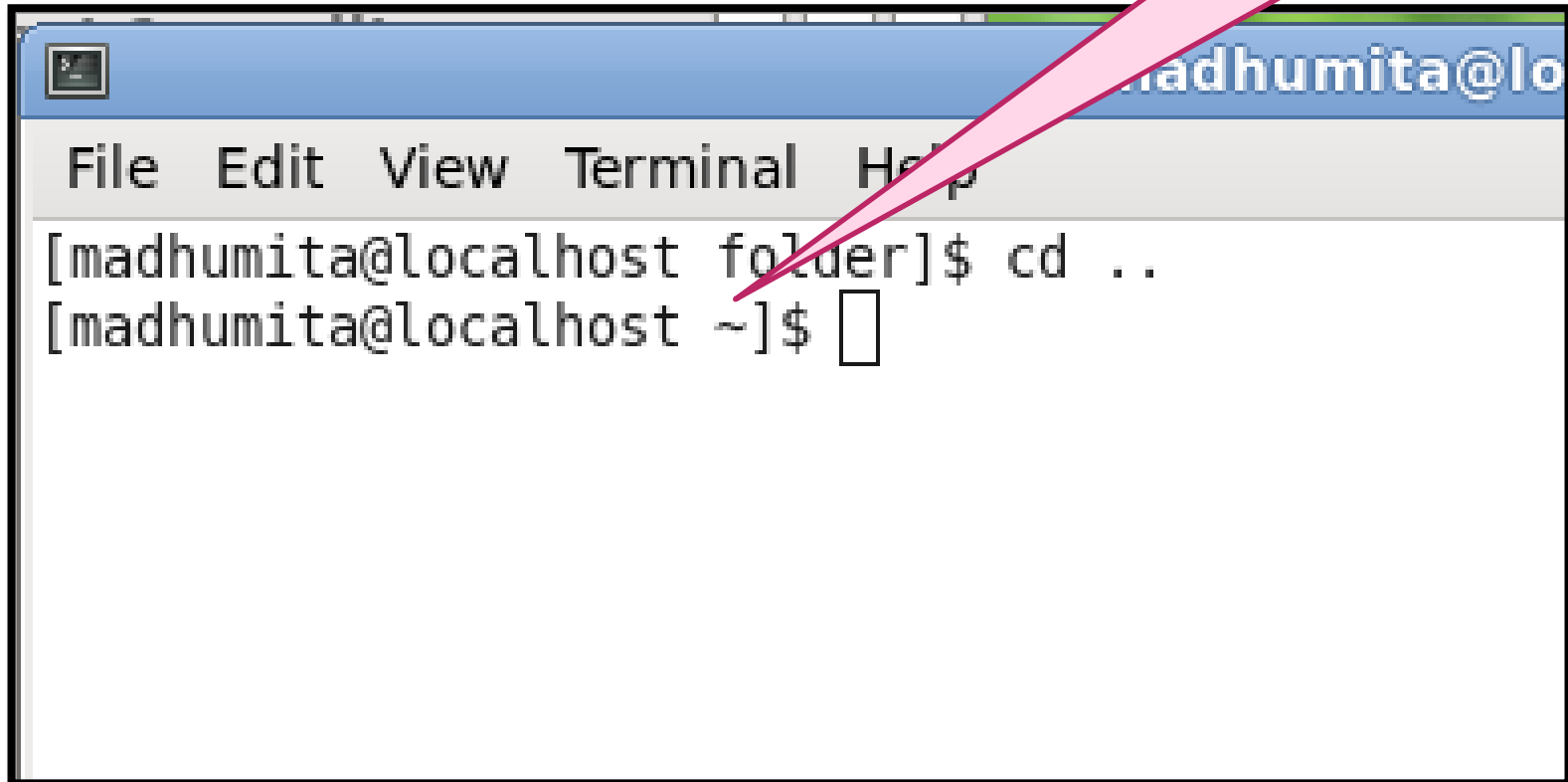
```
madhumita@localhost
File Edit View Terminal Help
[madhumita@localhost ~]$ cd folder
[madhumita@localhost folder]$
```



```
madhumita@localhost:~/folder
File Edit View Terminal Help
[madhumita@localhost ~]$ cd folder
[madhumita@localhost folder]$ pwd
/home/madhumita/folder
[madhumita@localhost folder]$
```

16. cd.. → change directory to parent

Prompt change to
'~' 'home folder'



```
File Edit View Terminal Help
[madhumita@localhost folder]$ cd ..
[madhumita@localhost ~]$
```

17. rm → remove file

```
madhumita@localhost:~/folder
File Edit View Terminal Help
[madhumita@localhost folder]$ ls -l
total 12
drwxrwxr-x. 2 madhumita madhumita 4096 Mar 13 23:17 f2
-rwxrwxrwx. 1 madhumita madhumita 7 Mar 13 23:19 file1
-rw-rw-r--. 1 madhumita madhumita 39 Mar 13 23:16 file2
[madhumita@localhost folder]$ rm file1
[madhumita@localhost folder]$ ls -l
total 8
drwxrwxr-x. 2 madhumita madhumita 4096 Mar 13 23:17 f2
-rw-rw-r--. 1 madhumita madhumita 39 Mar 13 23:16 file2
[madhumita@localhost folder]$
```

18. rmdir → remove empty directory




```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ rmdir folder  
rmdir: failed to remove `folder': Directory not empty  
[madhumita@localhost ~]$
```




empty directory

```
[madhumita@localhost folder]$ ls -l
total 8
drwxrwxr-x. 2 madhumita madhumita 4096 Mar 13 23:17 f2

[madhumita@localhost folder]$
```



```
madhumita@localhost:~/folder/folder
File Edit View Terminal Help
[madhumita@localhost folder]$ ls
f2
[madhumita@localhost folder]$ rmdir f2
[madhumita@localhost folder]$ ls
[madhumita@localhost folder]$
```





19. chmod → change the file permission

```
madhumita@localhost:~/folder
File Edit View Terminal Help
[madhumita@localhost folder]$ ls -l
total 12
drwxrwxr-x. 2 madhumita madhumita 4096 Mar 13 23:17 f2
-rw-rw-r--. 1 madhumita madhumita   39 Mar 13 23:19 file1
-rw-rw-r--. 1 madhumita madhumita   39 Mar 13 23:16 file2
[madhumita@localhost folder]$
```

Check the file permission

19. chmod → change the file permission

```
madhumita@localhost:~/folder
File Edit View Terminal Help
[madhumita@localhost folder]$ ls -l
total 4
drwxr-xr-x. 2 madhumita madhumita 4096 Mar 13 23:17 f2
-rw-rw-r--. 1 madhumita madhumita  39 Mar 13 23:19 file1
-rw-rw-r--. 1 madhumita madhumita  39 Mar 13 23:16 file2
[madhumita@localhost folder]$
```



Check the file permission

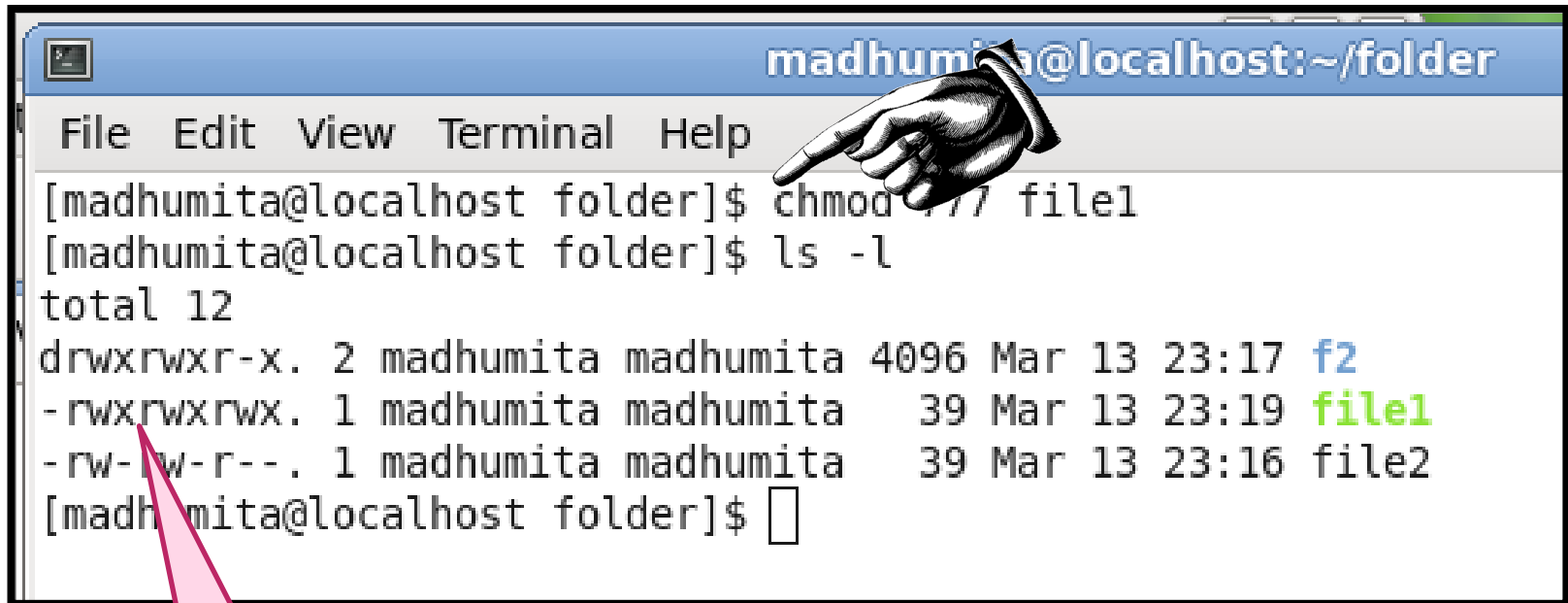
chmod 000 → for no permission



```
[madhumita@localhost folder]$ chmod 000 file1
[madhumita@localhost folder]$ ls -l
total 12
drwxrwxr-x. 2 madhumita madhumita 4096 Mar 13 23:17 f2
----- . 1 madhumita madhumita 39 Mar 13 23:19 file1
-rw-rw-r-- . 1 madhumita madhumita 39 Mar 13 23:16 file2
[madhumita@localhost folder]$
```

No permission

chmod 777 → for no permission



```
madhumita@localhost:~/folder
File Edit View Terminal Help
[madhumita@localhost folder]$ chmod 777 file1
[madhumita@localhost folder]$ ls -l
total 12
drwxrwxr-x. 2 madhumita madhumita 4096 Mar 13 23:17 f2
-rwxrwxrwx. 1 madhumita madhumita 39 Mar 13 23:19 file1
-rw-rw-r--. 1 madhumita madhumita 39 Mar 13 23:16 file2
[madhumita@localhost folder]$
```

No permission

chmod → 4 Read, 2 write and 1 execute

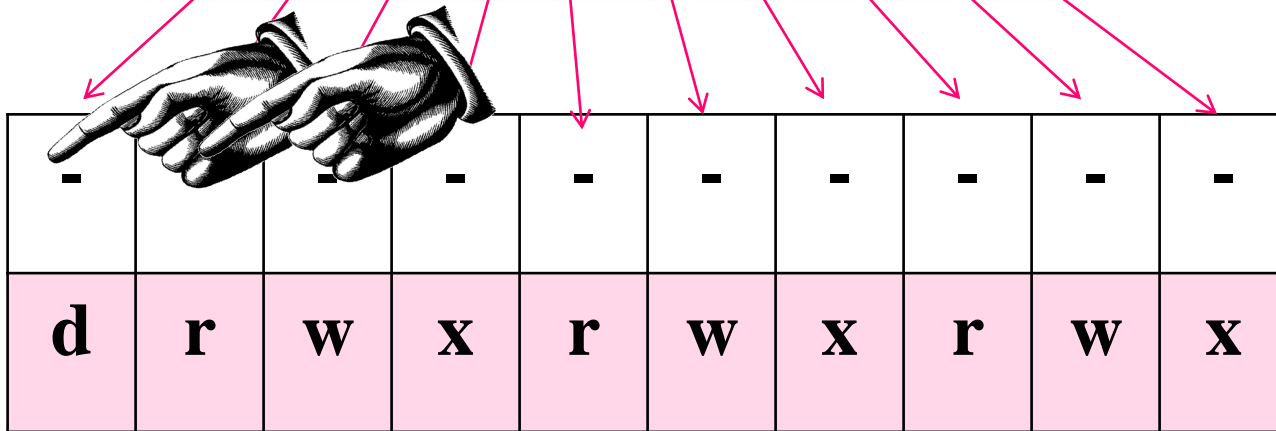
```
madhumita@localhost:~/folder
File Edit View Terminal Help
[madhumita@localhost folder]$ ls -l
total 12
drwxrwxr-x. 2 madhumita madhumita 4096 Mar 13 23:17 f2
-rw-rw-r--. 1 madhumita madhumita   39 Mar 13 23:19 file1
-rw-rw-r--. 1 madhumita madhumita   39 Mar 13 23:16 file2
[madhumita@localhost folder]$
```

jkm.cse@gmail.com

```
-rw-rw-r--. 1 madhumita madhumita   39 Mar 13 23:19 file1
```

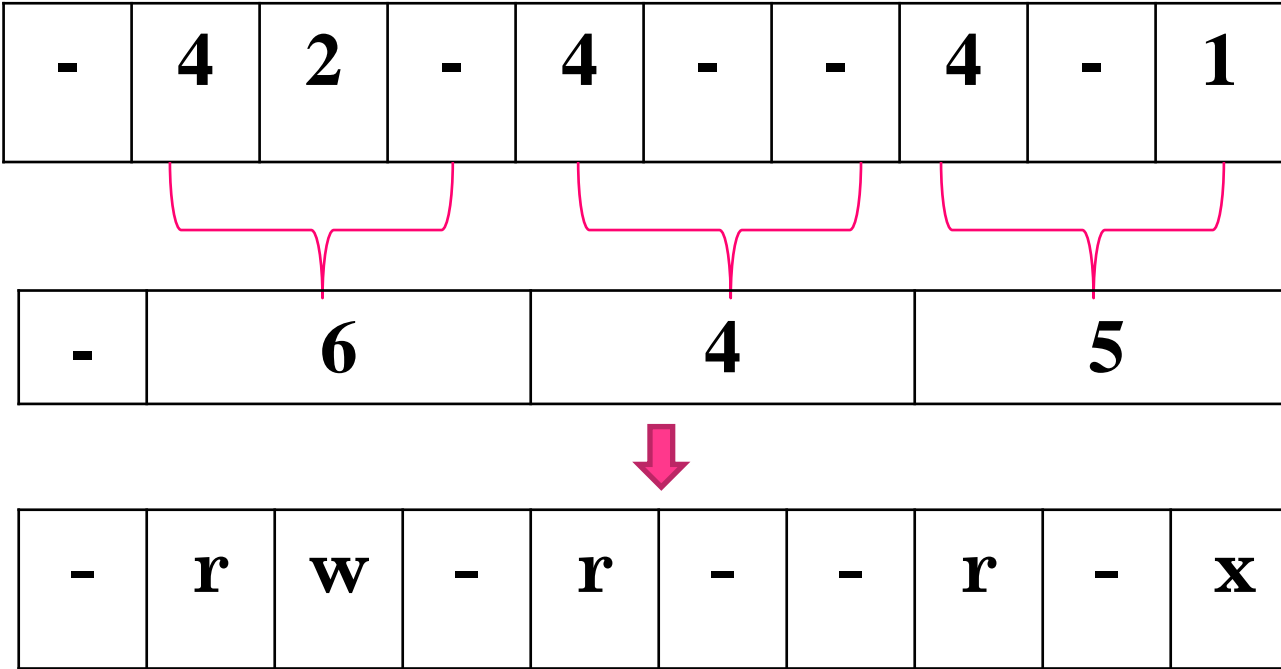
```
-rw-rw-r--.
```

`-rw-rw-r--`



`- 4 2 1 4 2 1 4 2 1`

`- Owner Group Other`



20. cmp → to compare two files



```
[madhumita@localhost ~]$ cat file1
```

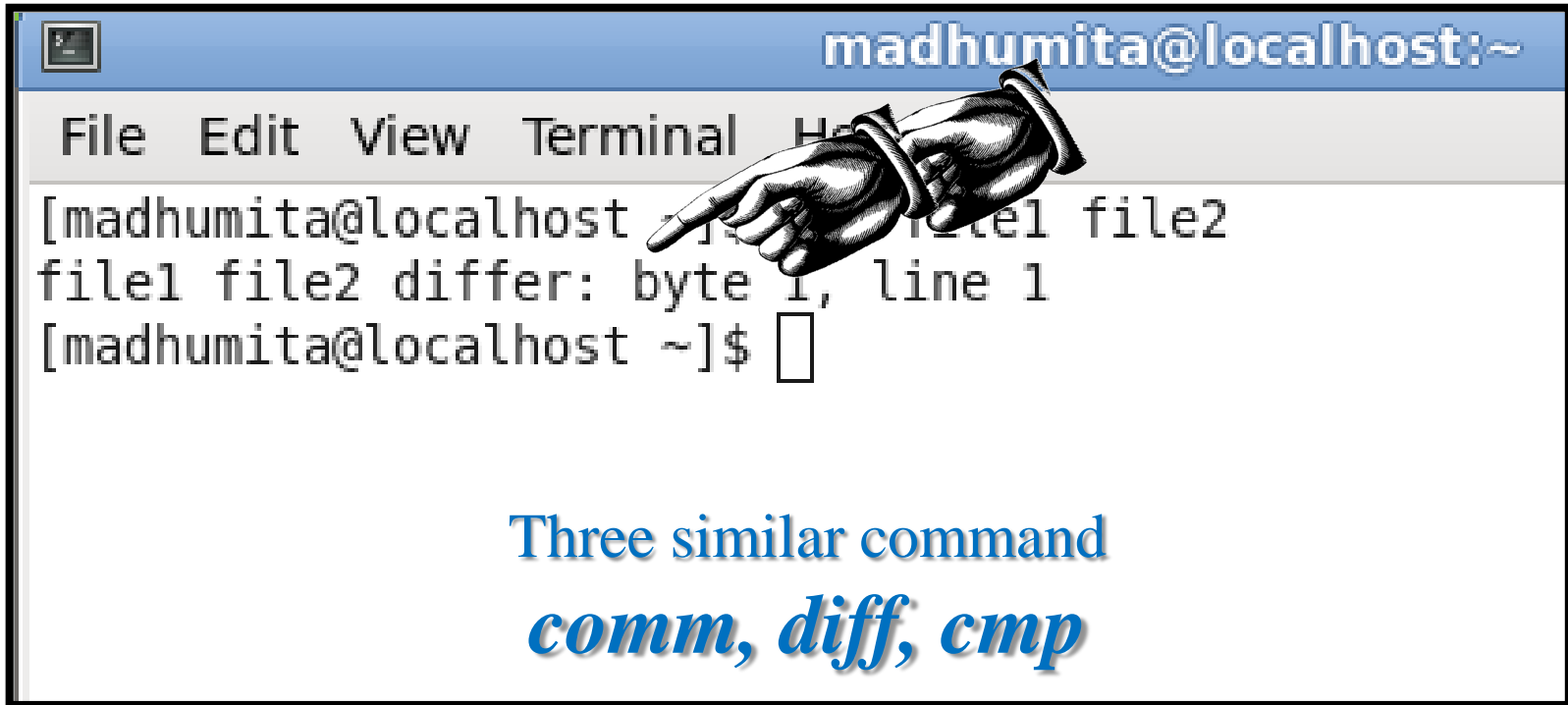
```
02  
11  
15  
30  
34  
37  
52  
70  
77  
83  
90  
96  
98
```

```
[madhumita@localhost ~]$ cat file2
```

```
02  
11  
12  
30  
34  
34  
52  
70  
77  
83  
90  
92  
98
```

```
[madhumita@localhost ~]$ █
```

cmp → to compare two files



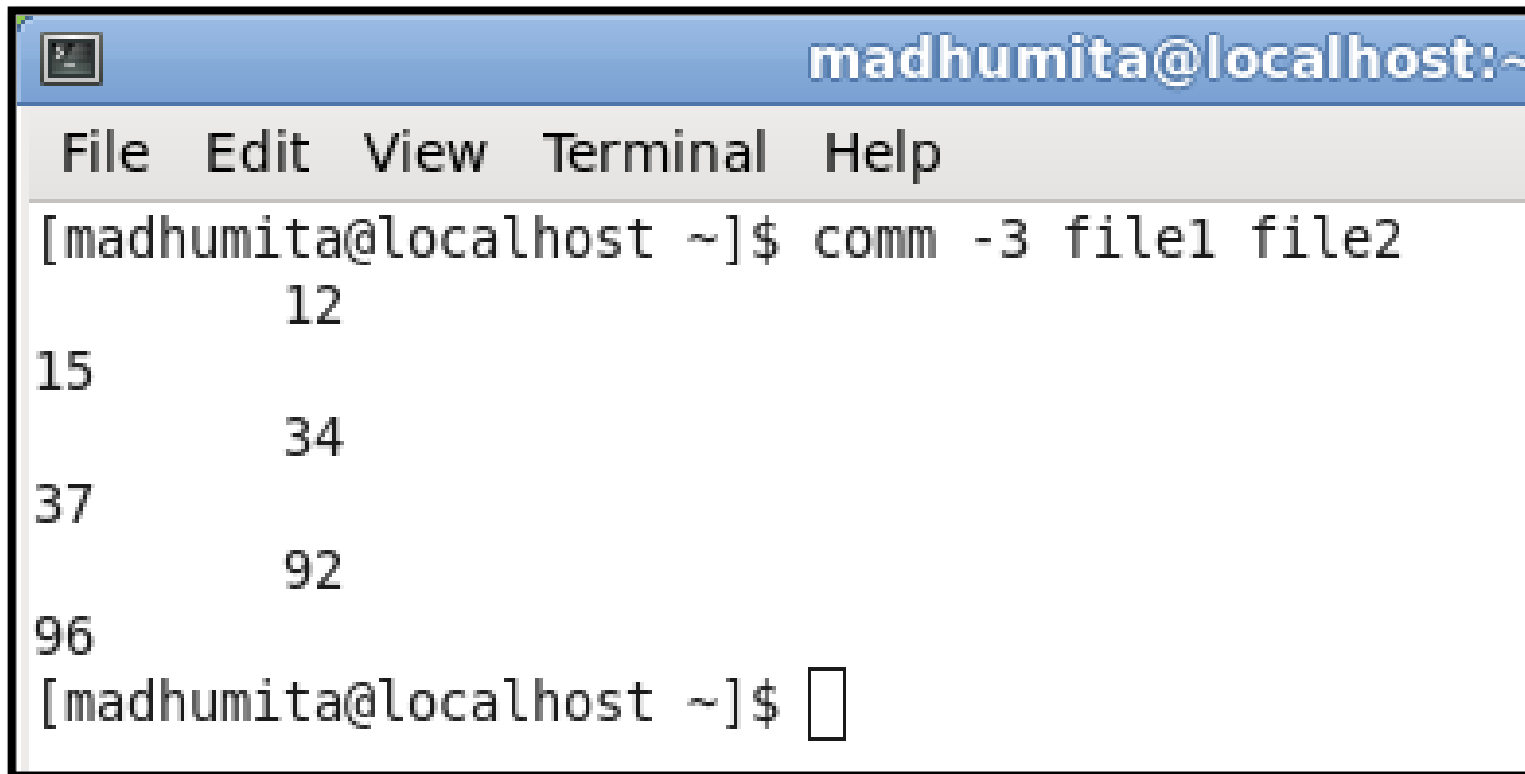
```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ cmp file1 file2  
file1 file2 differ: byte 1, line 1  
[madhumita@localhost ~]$
```

Three similar command
comm, diff, cmp

21. Comm → find out common between two files

```
madhumita@localhost
File Edit View Terminal Help
[madhumita@localhost ~]$ comm file1 file2
      02
      11
    12
15
      30
      34
    34
37
      52
      70
      77
      83
      90
    92
96
      98
[madhumita@localhost ~]$
```

Comm → '-3' shows only differences

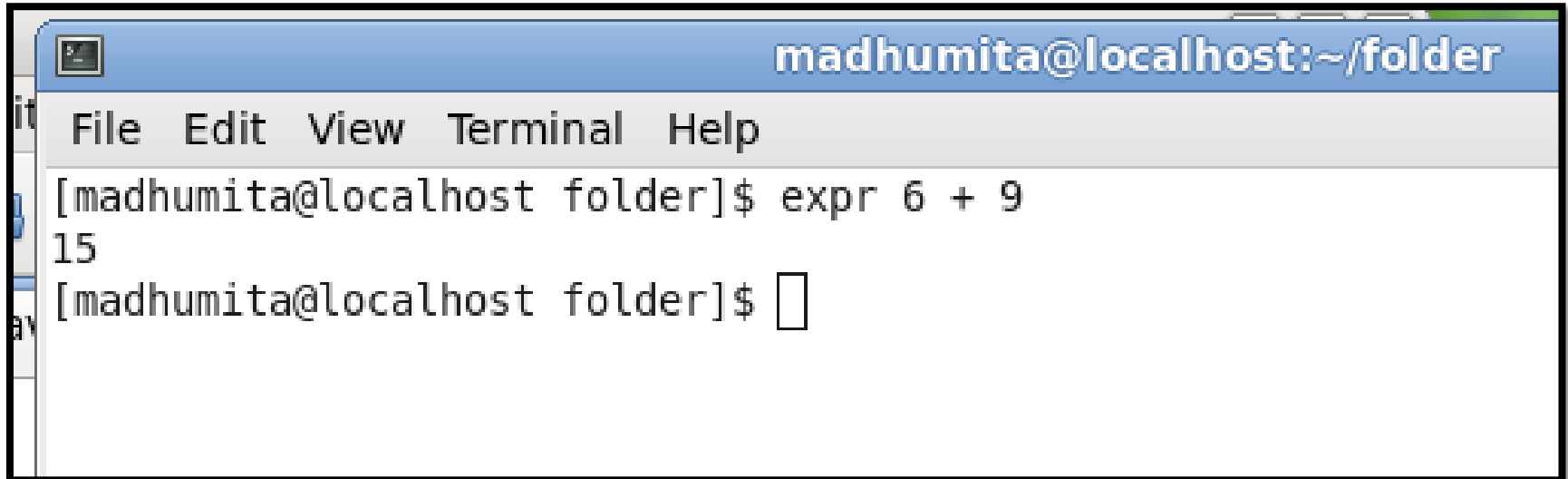


```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ comm -3 file1 file2  
12  
15  
34  
37  
92  
96  
[madhumita@localhost ~]$
```


22. diff → find out difference among two files

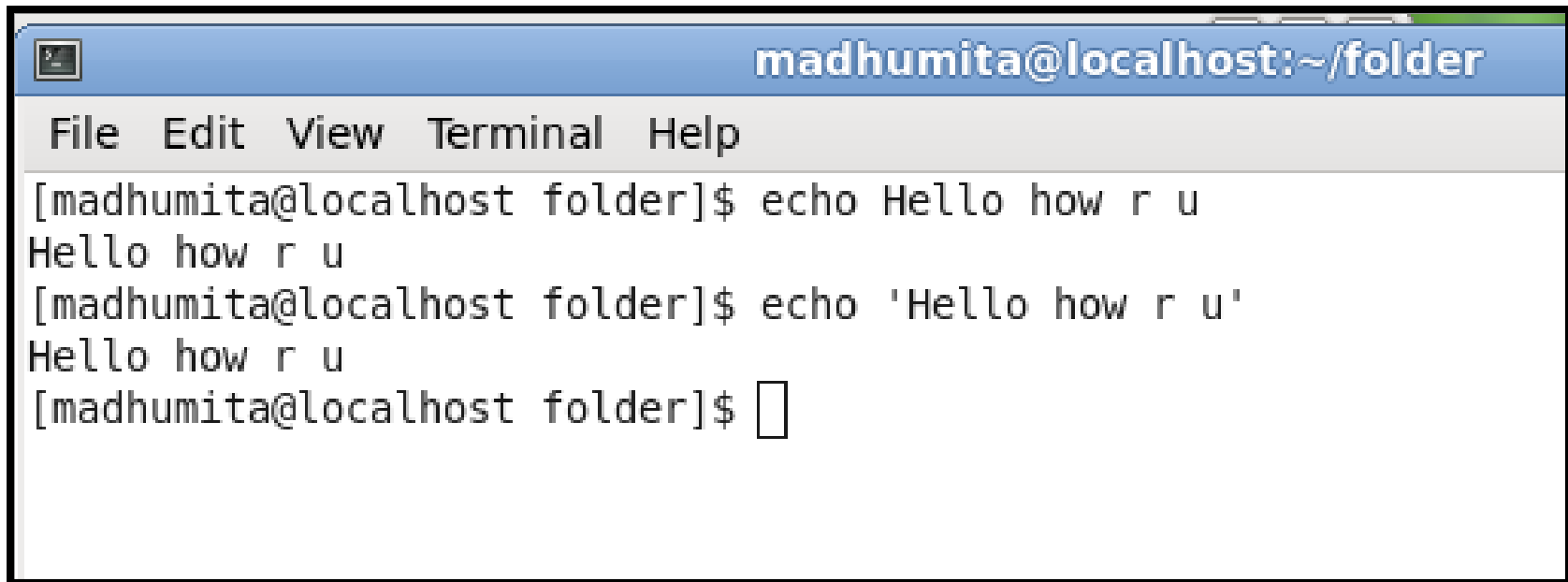
```
madhumita@localhost:~  
File Edit View Terminal Help  
[madhumita@localhost ~]$ diff file1 file2  
1,2c1,3  
< 34  
< 98  
---  
> 20  
> 56  
> 89  
3a5  
> 67  
5,13d6  
< 02  
< 83  
< 11  
< 52  
< 92  
< 70  
< 30  
< 34  
< 77  
[madhumita@localhost ~]$
```

23. `expr` → to compute mathematically



```
madhumita@localhost:~/folder
File Edit View Terminal Help
[madhumita@localhost folder]$ expr 6 + 9
15
[madhumita@localhost folder]$
```

24. echo → rewrite the message on prompt



```
madhumita@localhost:~/folder
File Edit View Terminal Help
[madhumita@localhost folder]$ echo Hello how r u
Hello how r u
[madhumita@localhost folder]$ echo 'Hello how r u'
Hello how r u
[madhumita@localhost folder]$
```

25. cut → cut number of character column wise

```
[madhumita@localhost folder]$ cat file1
```

```
02  
11  
15  
33  
34  
37  
52  
70  
77  
85  
90  
96  
98
```

```
[madhumita@localhost folder]$ cut -c 1 file1
```

```
0  
1  
1  
3  
3  
3  
5  
7  
7  
8  
9  
9  
9
```

```
[madhumita@localhost folder]$
```

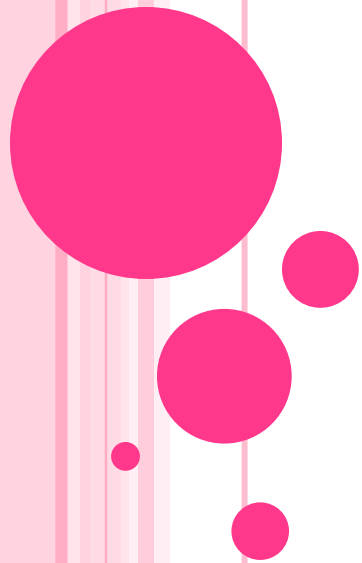
Few more commands

26. `cp` → command to copy files and folder.

27. `mv` → command to move files and folders.

28. `more` → help to display page wise.

SHELL SCRIPT



HOW TO WRITE AND RUN SHELL SCRIPT

- Use vi editor to write shell script.
- command to open script file.
 - `$ vi first.sh`
- write script.
 - `echo "Hello Students"`
- Save file and quite editor.
 - `Esc : wq`
- Run Shell Script
 - `sh first.sh`
- Output of the shell script.
 - Hello Students

Write a shell script to accept two numbers and display them

```
echo "Enter first number."  
read first  
echo "Enter second number."  
read second  
echo "The first number is $first and second number  
is $second."
```


Write a shell script to accept two numbers and display Sum

```
echo "Enter first number."  
read first  
echo "Enter second number."  
read second  
sum=`expr $first+$second`  
echo "The sum of two number is $sum."
```

WRITE A SHELL SCRIPT TO FIND OUT THE FACTORIAL OF GIVEN NUMBER

```
echo "Enter a number."  
read n  
m=1  
fact=1  
while [ $m -le $n ]  
do  
fact=`expr $fact \* $m`  
m=`expr $m + 1`  
done  
echo "The factorial of $n is $fact."
```

WRITE A SHELL SCRIPT TO FIND OUT THE MAGIC NUMBERS

```
echo "Enter a 5 digit number."  
read n  
temp=$n  
ds=100  
while [ $ds -gt 9 ]  
do  
    ds=0  
    while [ $temp -gt 0 ]  
    do  
        r=`expr $temp \% 10`  
        ds=`expr $ds + $r`  
        temp=`expr  
$temp / 10`  
    done  
    temp=$ds  
done
```

```
echo "The repetitive digit sum is  
$ds"  
if [ $ds -eq 1 ]then  
echo "The number is a magic  
number."  
else  
    echo "The number is not  
magic number."  
fi
```

QUESTIONS?

THANK YOU