

Assignment 6

- ❖ ls - List directory contents.
- ❖ ls
- ❖ Displays the files and directories in the current directory.

- ❖ cd - Change directory.
- ❖ cd /path/to/directory
- ❖ Moves you to the specified directory.

- ❖ pwd - Print working directory.
- ❖ pwd
- ❖ Shows the full path of the current directory.

- ❖ touch - Create a new empty file.
- ❖ touch filename.txt
- ❖ Creates a new empty file named filename.txt.

- ❖ cp - Copy files or directories.
- ❖ cp source_file destination_file
- ❖ Copies a file from source_file to destination_file.

- ❖ mv - Move or rename files or directories.
- ❖ mv old_name new_name
- ❖ Moves or renames a file or directory from old_name to new_name.

Name: Vaishnavi Vilas Surve

- ❖ `rm` - Remove files or directories.
- ❖ `rm filename.txt`
- ❖ Deletes the specified file or directory.

- ❖ `mkdir` - Create a new directory.
- ❖ `mkdir new_directory`
- ❖ Creates a new directory named `new_directory`.

- ❖ `rmdir` - Remove an empty directory.
- ❖ `rmdir empty_directory`
- ❖ Deletes an empty directory named `empty_directory`.

- ❖ `cat` - Concatenate and display file contents.
- ❖ `cat filename.txt`
- ❖ Displays the contents of `filename.txt`.

- ❖ `echo` - Display a line of text.
- ❖ `echo "Hello, world!"`
- ❖ Prints "Hello, world!" to the terminal.

- ❖ `nano` - Open a file in the nano text editor.
- ❖ `nano filename.txt`
- ❖ Opens `filename.txt` in the nano text editor.

Name: Vaishnavi Vilas Surve

- ❖ vim - Open a file in the vim text editor.

- ❖ vim filename.txt
- ❖ Opens filename.txt in the vim text editor.

- ❖ grep - Search for a pattern in files.
- ❖ grep "search_term" filename.txt
- ❖ Searches for "search_term" in filename.txt and displays matching lines.

- ❖ find - Search for files in a directory hierarchy.
- ❖ find /path -name "filename"
- ❖ Searches for files named filename within /path.

- ❖ locate - Find files by name (using a database).
- ❖ locate filename
- ❖ Quickly finds files named filename by searching a prebuilt database.

- ❖ df - Display disk space usage.
- ❖ df -h
- ❖ Shows disk space usage in a human-readable format.

- ❖ du - Display file and directory space usage.
- ❖ du -sh /path/to/directory
- ❖ Displays the size of a directory and its contents.

Name: Vaishnavi Vilas Surve

- ❖ top - Display real-time system processes.
- ❖ top
- ❖ Shows a real-time view of running processes and system resource usage.

- ❖ ps - Display current processes.
- ❖ ps aux
- ❖ Lists all running processes with detailed information.

- ❖ kill - Terminate a process.
- ❖ kill PID
- ❖ Terminates the process with the specified Process ID (PID).

- ❖ chmod - Change file permissions.
- ❖ chmod 755 filename
- ❖ Sets the permissions of filename to 755 (rwxr-xr-x).

- ❖ chown - Change file owner and group.
- ❖ chown user:group filename
- ❖ Changes the owner and group of filename to user and group.

- ❖ ssh - Connect to a remote machine via SSH.
- ❖ ssh user@hostname
- ❖ Opens an SSH connection to a remote machine at hostname with user.

- ❖ scp - Securely copy files between hosts.

Name: Vaishnavi Vilas Surve

- ❖ `scp file user@hostname:/path/to/destination`
- ❖ Securely copies file to the specified remote destination.

- ❖ `wget` - Download files from the web.
- ❖ `wget http://example.com/file`
- ❖ Downloads file from the specified URL.

- ❖ `curl` - Transfer data from or to a server.
- ❖ `curl http://example.com`
- ❖ Transfers data from the specified URL and displays it.
- ❖ `tar` - Archive files.
- ❖ `tar -cvf archive.tar file1 file2`
- ❖ Creates a tar archive named `archive.tar` containing `file1` and `file2`.

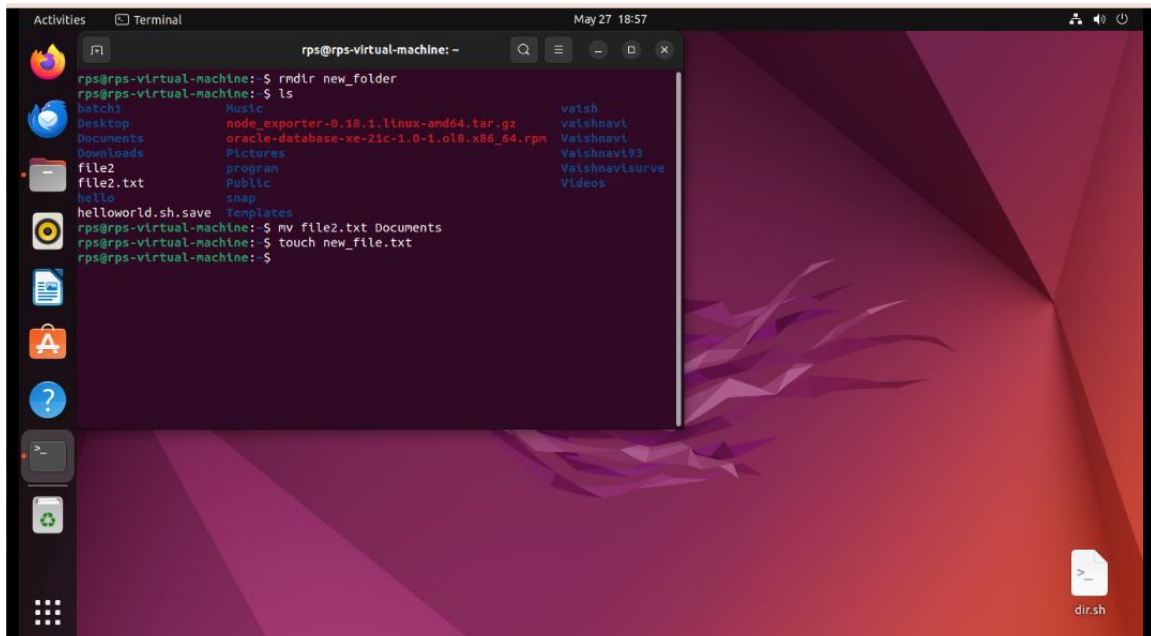
- ❖ `unzip` - Extract files from a ZIP archive.
- ❖ `unzip archive.zip`
- ❖ Extracts the contents of `archive.zip`.

- ❖ `gzip` - Compress files.
- ❖ `gzip filename`
- ❖ Compresses `filename` into `filename.gz`.
- ❖ `gunzip` - Decompress files.
- ❖ `unzip filename.gz`

- ❖ Decompresses `filename.gz` to `filename`.

Name: Vaishnavi Vilas Surve

- ❖ head - Display the beginning of a file.
- ❖ head filename.txt
- ❖ tail - Display the end of a file.
- ❖ tail filename.txt
- ❖ history - Display command history.
- ❖ history
- ❖ Lists all previously executed commands in the terminal.
- ❖ man - Display the manual for a command.
- ❖ man command

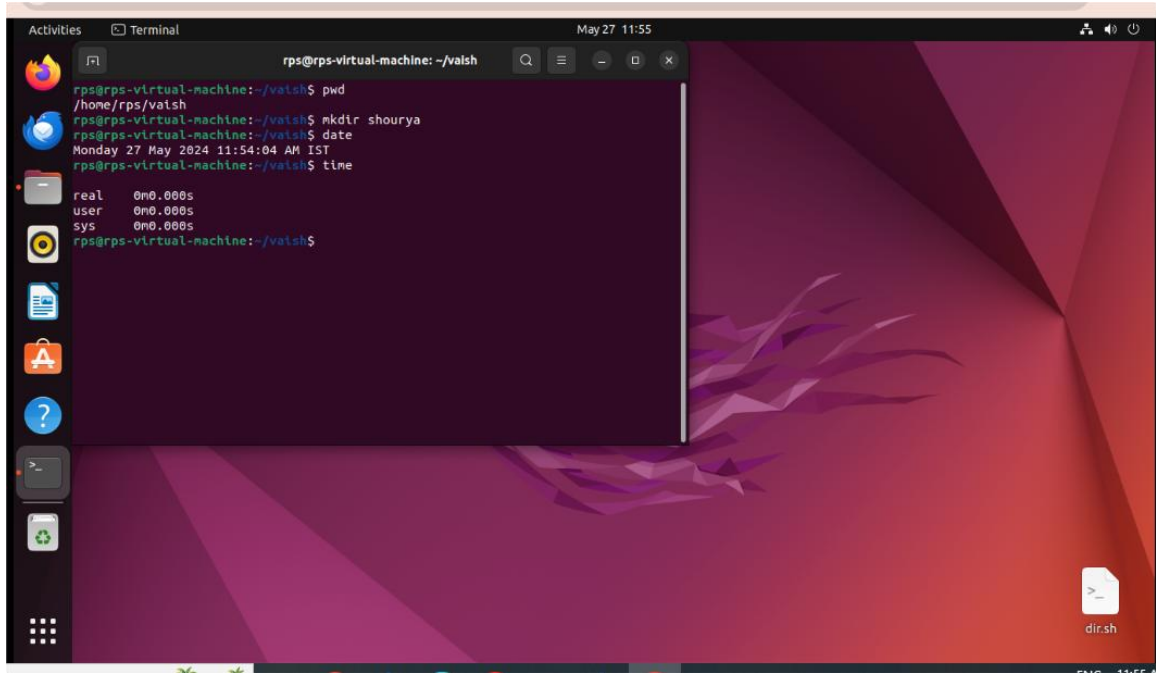


The screenshot shows a Linux desktop environment with a terminal window open. The terminal displays the following commands and their outputs:

```
rps@rps-virtual-machine:~$ rmdir new_folder
rps@rps-virtual-machine:~$ ls
batch1      Music
Desktop     node_exporter-0.18.1.linux-amd64.tar.gz  vaish
Documents   oracle-database-xe-21c-1.0-1.018.x86_64.rpm vaishnavi
Downloads   Pictures
file2       program
file2.txt   Public
hello       snap
helloworld.sh.save  templates
rps@rps-virtual-machine:~$ mv file2.txt Documents
rps@rps-virtual-machine:~$ touch new_file.txt
rps@rps-virtual-machine:~$
```

The terminal window is titled "rps@rps-virtual-machine: ~" and shows the command history. The desktop background is a purple and red geometric pattern. The left sidebar contains icons for various applications, including a file manager, a terminal, and a web browser. The top of the window shows the date and time as "May 27 18:57".

Name: Vaishnavi Vilas Surve

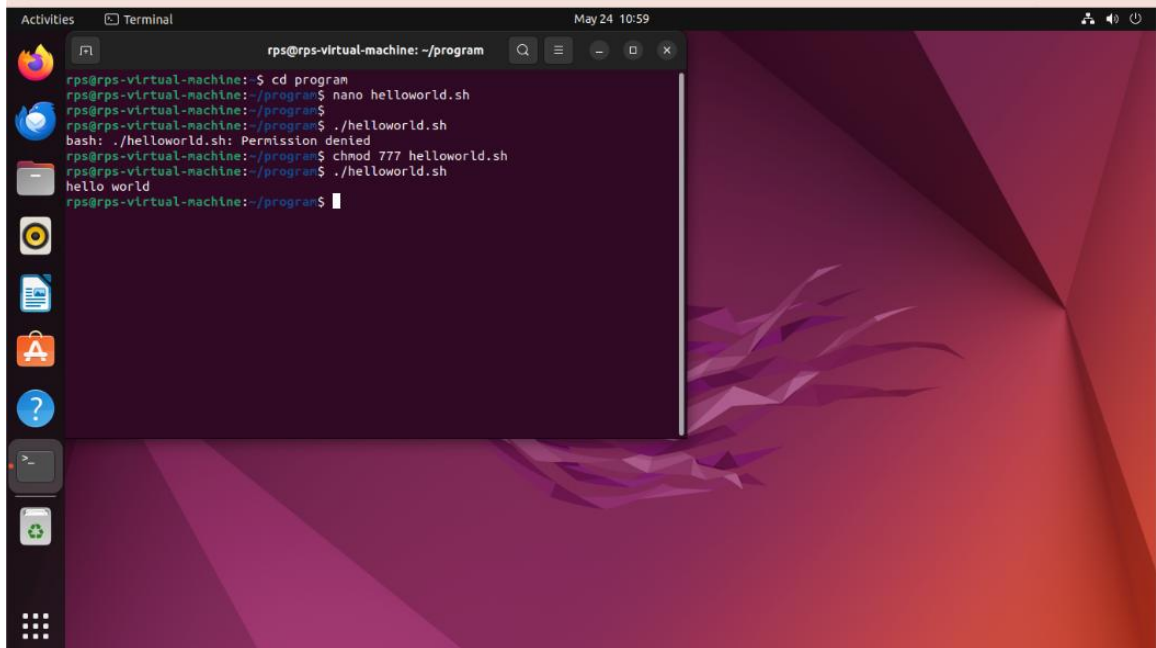


A terminal window titled "Terminal" with the prompt "rps@rps-virtual-machine: ~/vaish". The window shows the following commands and output:

```
rps@rps-virtual-machine:~/vaish$ pwd
/home/rps/vaish
rps@rps-virtual-machine:~/vaish$ mkdir shourya
rps@rps-virtual-machine:~/vaish$ date
Monday 27 May 2024 11:54:04 AM IST
rps@rps-virtual-machine:~/vaish$ time

real    0m0.000s
user    0m0.000s
sys     0m0.000s
rps@rps-virtual-machine:~/vaish$
```

The terminal is open on a desktop with a purple and red geometric wallpaper. A sidebar on the left shows various application icons. A file named "dir.sh" is visible on the desktop.

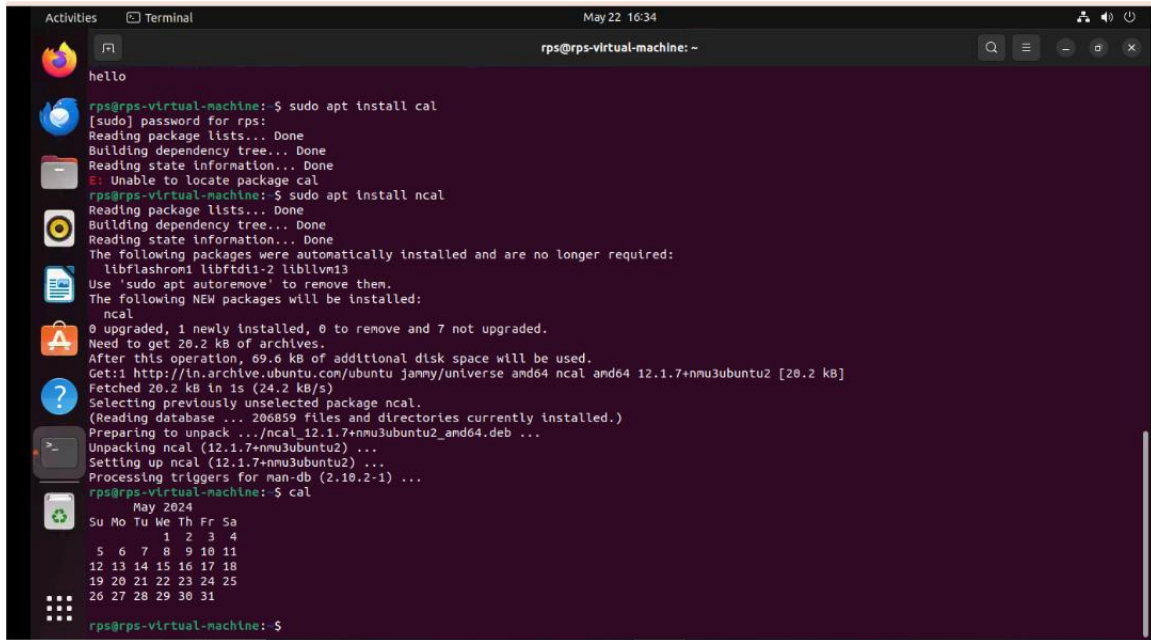


A terminal window titled "Terminal" with the prompt "rps@rps-virtual-machine: ~/program". The window shows the following commands and output:

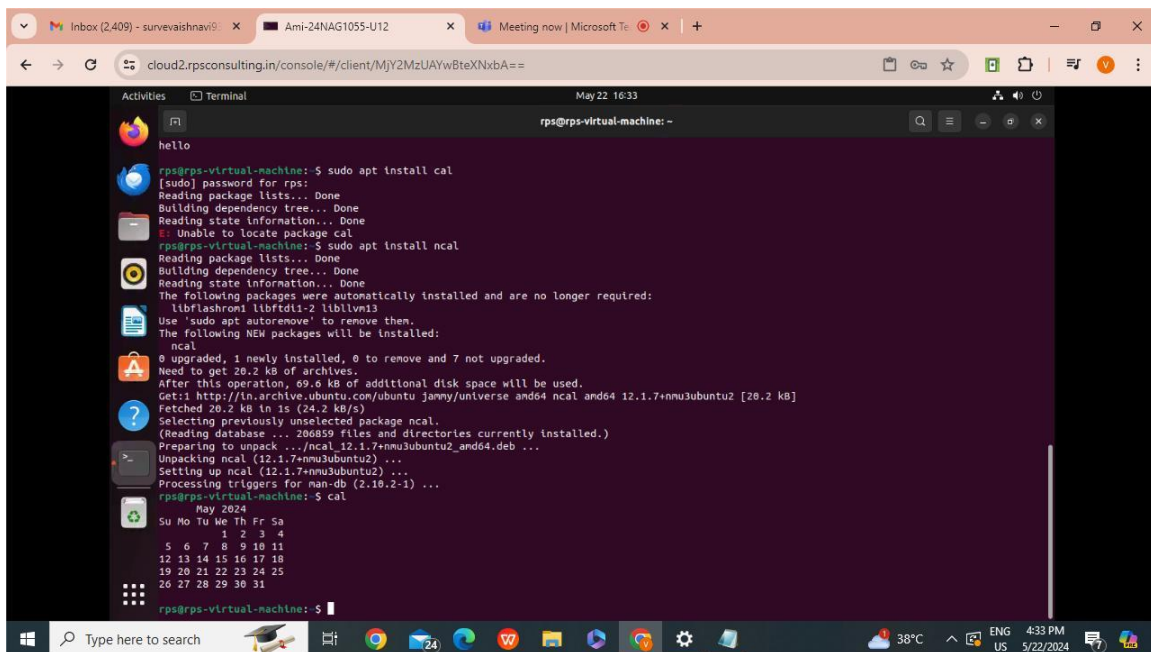
```
rps@rps-virtual-machine:~$ cd program
rps@rps-virtual-machine:~/program$ nano helloworld.sh
rps@rps-virtual-machine:~/program$ ./helloworld.sh
bash: ./helloworld.sh: Permission denied
rps@rps-virtual-machine:~/program$ chmod 777 helloworld.sh
rps@rps-virtual-machine:~/program$ ./helloworld.sh
hello world
rps@rps-virtual-machine:~/program$
```

The terminal is open on a desktop with a purple and red geometric wallpaper. A sidebar on the left shows various application icons.

Name: Vaishnavi Vilas Surve



```
Activities Terminal May 22 16:34
rps@rps-virtual-machine: ~
hello
rps@rps-virtual-machine:~$ sudo apt install cal
[sudo] password for rps:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package cal
rps@rps-virtual-machine:~$ sudo apt install ncal
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libflashrom1 libftdi1-2 liblvm13
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
  ncal
0 upgraded, 1 newly installed, 0 to remove and 7 not upgraded.
Need to get 20.2 kB of archives.
After this operation, 69.6 kB of additional disk space will be used.
Get:1 http://in.archive.ubuntu.com/ubuntu jammy/universe amd64 ncal 12.1.7+nmu3ubuntu2 [20.2 kB]
Fetched 20.2 kB in 1s (24.2 kB/s)
Selecting previously unselected package ncal.
(Reading database ... 206859 files and directories currently installed.)
Preparing to unpack .../ncal_12.1.7+nmu3ubuntu2_amd64.deb ...
Unpacking ncal (12.1.7+nmu3ubuntu2) ...
Setting up ncal (12.1.7+nmu3ubuntu2) ...
Processing triggers for man-db (2.10.2-1) ...
rps@rps-virtual-machine:~$ cal
      May 2024
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
rps@rps-virtual-machine:~$
```



```
Activities Terminal May 22 16:33
rps@rps-virtual-machine: ~
hello
rps@rps-virtual-machine:~$ sudo apt install cal
[sudo] password for rps:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package cal
rps@rps-virtual-machine:~$ sudo apt install ncal
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libflashrom1 libftdi1-2 liblvm13
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
  ncal
0 upgraded, 1 newly installed, 0 to remove and 7 not upgraded.
Need to get 20.2 kB of archives.
After this operation, 69.6 kB of additional disk space will be used.
Get:1 http://in.archive.ubuntu.com/ubuntu jammy/universe amd64 ncal 12.1.7+nmu3ubuntu2 [20.2 kB]
Fetched 20.2 kB in 1s (24.2 kB/s)
Selecting previously unselected package ncal.
(Reading database ... 206859 files and directories currently installed.)
Preparing to unpack .../ncal_12.1.7+nmu3ubuntu2_amd64.deb ...
Unpacking ncal (12.1.7+nmu3ubuntu2) ...
Setting up ncal (12.1.7+nmu3ubuntu2) ...
Processing triggers for man-db (2.10.2-1) ...
rps@rps-virtual-machine:~$ cal
      May 2024
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
rps@rps-virtual-machine:~$
```

- ❖ These commands are essential for basic file manipulation, navigation, and system monitoring in a Linux environment.