1. Create a directory

```
t-shashwats@lt-harshitp:~$ cd ~/Document
ash: cd: /home/lt-shashwats/Document: No such file or directory
t-shashwats@lt-harshitp:~$ cd Documents
t-shashwats@lt-harshitp:~/Documents$ mkdir testing
t-shashwats@lt-harshitp:~/Documents$
```

2. Switch to this directory

```
lt-shashwats@lt-harshitp:~/Documents$ cd testing
lt-shashwats@lt-harshitp:~/Documents/testing$
```

3. Create a normal text file

```
lt-shashwats@lt-harshitp:~/Documents/testing$ touch harsh.txt
lt-shashwats@lt-harshitp:~/Documents/testing$
```

4. Create a hidden text file

```
lt-shashwats@lt-harshitp:~/Documents/testing$ touch .fruit.txt
```

5. Modify the access of the hidden text file so that it can be edited only by root user.

```
lt-shashwats@lt-harshitp:~/Documents/testing$ chmod 700 .fruit.txt
lt-shashwats@lt-harshitp:~/Documents/testing$
```

6. Move the hidden file to a your desktop.

```
lt-shashwats@lt-harshitp:~/Documents/testing$ mv .fruit.txt ~/Desktop
lt-shashwats@lt-harshitp:~/Documents/testing$
```

7. Create a directory, add 3 files into it and then remove the whole directory.

```
lt-shashwats@lt-harshitp:~/Documents/testing$ cd -
/home/lt-shashwats/Documents
lt-shashwats@lt-harshitp:~/Documents$ mkdir harshit
lt-shashwats@lt-harshitp:~/Documents$ cd Harshit
bash: cd: Harshit: No such file or directory
lt-shashwats@lt-harshitp:~/Documents$ cd harshit
lt-shashwats@lt-harshitp:~/Documents/harshit$ touch one.txt,two.txt,three.txt
lt-shashwats@lt-harshitp:~/Documents/harshit$ touch one.txt two.txt three.txt
lt-shashwats@lt-harshitp:~/Documents/harshit$ cd -
/home/lt-shashwats/Documents
lt-shashwats@lt-harshitp:~/Documents$ rm -r harshit
lt-shashwats@lt-harshitp:~/Documents$
```

8. Create a new user group.
9. Create a new user and assign a new user home and the previously created usergroup to the user.

```
lt-shashwats@lt-harshitp:~/Documents$ sudo groupadd direct
[sudo] password for lt-shashwats:
lt-shashwats@lt-harshitp:~/Documents$
```

```
lt-shashwats@lt-harshitp:~/Documents$ sudo useradd -g direct -d /user/testuser
harshi
lt-shashwats@lt-harshitp:~/Documents$
```

10. Create a symbolic link in a different location for the file created in step 3.

```
lt-shashwats@lt-harshitp:~/Documents$ ln -s harsh.txt soft.txt
lt-shashwats@lt-harshitp:~/Documents$ ln harsh.txt hard.txt
```

11. Open google chrome or any other web browser, see its memory usage using top command and end the process using the ps and grep commands.

```
lt-shashwats@lt-harshitp:~/Documents$ top | grep chrome
  3001 lt-shas+  20   0   32.5g 238672 160372 S   6.7  1.5   0:43.55 chrome
  8506 lt-shas+  20   0   40.6g 287940 104344 S   2.3  1.8   1:39.89 chrome
  8506 lt-shas+  20   0   40.6g 287940 104344 S   3.0  1.8   1:39.98 chrome
  3001 lt-shas+  20   0   32.5g 238672 160372 S   0.3  1.5   0:43.56 chrome
  3051 lt-shas+  20   0   32.3g 103684  83340 S   0.3  0.6   0:10.27 chrome
  8506 lt-shas+  20   0   40.6g 287940 104344 S   2.7  1.8   1:40.06 chrome
  3001 lt-shas+  20   0   32.5g 238672 160372 S   0.3  1.5   0:43.57 chrome
  8506 lt-shas+  20   0   40.6g 287940 104344 S   1.7  1.8   1:40.11 chrome
  3001 lt-shas+  20   0   32.5g 238768 160448 S   0.3  1.5   0:43.58 chrome
  8506 lt-shas+  20   0   40.6g 287640 104344 S   2.3  1.8   1:40.18 chrome
  3051 lt-shas+  20   0   32.3g 103668  83340 S   0.3  0.6   0:10.28 chrome
  8506 lt-shas+  20   0   40.6g 287640 104344 S   2.7  1.8   1:40.26 chrome
  3001 lt-shas+  20   0   32.5g 238764 160448 S   0.3  1.5   0:43.59 chrome
  8506 lt-shas+  20   0   40.6g 287640 104344 S   2.7  1.8   1:40.34 chrome
  8506 lt-shas+  20   0   40.6g 286468 104380 S   4.0  1.8   1:40.46 chrome
  3001 lt-shas+  20   0   32.5g 238764 160448 S   0.7  1.5   0:43.61 chrome
  3048 lt-shas+  20   0   32.6g 174376 101112 S   0.3  1.1   0:59.04 chrome
  3051 lt-shas+  20   0   32.3g 103664  83340 S   0.3  0.6   0:10.29 chrome
  8506 lt-shas+  20   0   40.6g 286468 104380 S   2.3  1.8   1:40.53 chrome
  3001 lt-shas+  20   0   32.5g 238764 160448 S   0.3  1.5   0:43.62 chrome
  3051 lt-shas+  20   0   32.3g 103660  83340 S   0.3  0.6   0:10.30 chrome
  8506 lt-shas+  20   0   40.6g 286468 104380 S   3.0  1.8   1:40.62 chrome
  3001 lt-shas+  20   0   32.5g 238764 160448 S   0.3  1.5   0:43.63 chrome
  3048 lt-shas+  20   0   32.6g 174276 101112 S   0.3  1.1   0:59.05 chrome
  8506 lt-shas+  20   0   40.6g 286468 104380 S   2.7  1.8   1:40.70 chrome
  3001 lt-shas+  20   0   32.5g 238764 160448 S   0.3  1.5   0:43.64 chrome
  8506 lt-shas+  20   0   40.6g 286468 104380 S   2.7  1.8   1:40.78 chrome
  3001 lt-shas+  20   0   32.5g 238764 160448 S   0.3  1.5   0:43.65 chrome
  3051 lt-shas+  20   0   32.3g 103644  83340 S   0.3  0.6   0:10.31 chrome
  8506 lt-shas+  20   0   40.6g 286468 104380 S   2.3  1.8   1:40.85 chrome
  3001 lt-shas+  20   0   32.5g 238764 160448 S   0.3  1.5   0:43.66 chrome
  8506 lt-shas+  20   0   40.6g 286468 104380 S   3.0  1.8   1:40.94 chrome
  8506 lt-shas+  20   0   40.6g 286224 104380 S   2.7  1.8   1:41.02 chrome
  3001 lt-shas+  20   0   32.5g 238764 160448 S   0.7  1.5   0:43.68 chrome
  8506 lt-shas+  20   0   40.6g 286224 104380 S   2.7  1.8   1:41.10 chrome
  3001 lt-shas+  20   0   32.5g 238764 160448 S   0.3  1.5   0:43.69 chrome
  3051 lt-shas+  20   0   32.3g 103660  83340 S   0.3  0.6   0:10.32 chrome
  8506 lt-shas+  20   0   40.6g 286224 104380 S   2.3  1.8   1:41.17 chrome
```

```
 10145 pts/0    00:00:00 ps
lt-shashwats@lt-harshitp:~/Documents$ ps aux | grep 'chrome'
lt-shas+   3001  0.3  1.4 34077540 238540 ?     SLl  09:27   0:42 /opt/google/chrome/chrome --enable-crashpad
lt-shas+   3010  0.0  0.0 33576752 3340 ?       Sl   09:27   0:00 /opt/google/chrome/chrome_crashpad_handler --monitor-self --monitor-self-annotation=ptype=crashpad-handler --database=/home/lt-shashwats/
.config/google-chrome/Crash Reports --metrics-dir=/home/lt-shashwats/.config/google-chrome --url=https://clients2.google.com/cr/report --annotation=channel= --annotation=lsb-release=Ubuntu 21.10 --annotat
ion=plat=Linux --annotation=prod=Chrome_Linux --annotation=ver=102.0.5005.61 --initial-client-fd=5 --shared-client-connection
lt-shas+   3012  0.0  0.0 33567516 1616 ?       Sl   09:27   0:00 /opt/google/chrome/chrome_crashpad_handler --no-periodic-tasks --monitor-self-annotation=ptype=crashpad-handler --database=/home/lt-shash
wats/.config/google-chrome/Crash Reports --url=https://clients2.google.com/cr/report --annotation=channel= --annotation=lsb-release=Ubuntu 21.10 --annotation=plat=Linux --annotation=prod=Chrome_Linux --an
notation=ver=102.0.5005.61 --initial-client-fd=4 --shared-client-connection
lt-shas+   3018  0.0  0.3 33823364 57840 ?      S    09:27   0:00 /opt/google/chrome/chrome --type=zygote --no-zygote-sandbox --enable-crashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc93460
3-b51c-4a51-a58b-a505d650fd6f, --change-stack-guard-on-fork=enable --enable-crashpad
lt-shas+   3019  0.0  0.3 33823360 58232 ?      S    09:27   0:00 /opt/google/chrome/chrome --type=zygote --enable-crashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc934603-b51c-4a51-a58b-a50
5d650fd6f, --change-stack-guard-on-fork=enable --enable-crashpad
lt-shas+   3020  0.0  0.0 33562952 3988 ?       S    09:27   0:00 /opt/google/chrome/nacl_helper
lt-shas+   3023  0.0  0.1 33823384 16132 ?      S    09:27   0:00 /opt/google/chrome/chrome --type=zygote --enable-crashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc934603-b51c-4a51-a58b-a50
5d650fd6f, --change-stack-guard-on-fork=enable --enable-crashpad
lt-shas+   3048  0.4  1.0 34202716 174324 ?     Sl   09:27   0:58 /opt/google/chrome/chrome --type=gpu-process --enable-crashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc934603-b51c-4a51-a58
b-a505d650fd6f, --change-stack-guard-on-fork=enable --gpu-preferences=WAAAAAAAAgAAAIIAAAAAAAAAAAAAABgAAAAAA4AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACAAAAAAAAIAAAAAAAAABAAAAAAAAgAAAAAAAACAAAAA
AAAAAIAAAAAAAAAA== --shared-files --field-trial-handle=0,i,2733646951035943041,9436306058465501654,131072
lt-shas+   3051  0.0  0.6 33889224 103812 ?     Sl   09:27   0:09 /opt/google/chrome/chrome --type=utility --utility-sub-type=network.mojom.NetworkService --lang=en-GB --service-sandbox-type=none --enabl
e-crashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc934603-b51c-4a51-a58b-a505d650fd6f, --change-stack-guard-on-fork=enable --shared-files=v8_context_snapshot_data:100 --field-trial-handle=0,
i,2733646951035943041,9436306058465501654,131072 --enable-crashpad
lt-shas+   3081  0.0  0.2 33872960 47496 ?      Sl   09:27   0:00 /opt/google/chrome/chrome --type=utility --utility-sub-type=storage.mojom.StorageService --lang=en-GB --service-sandbox-type=utility --en
able-crashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc934603-b51c-4a51-a58b-a505d650fd6f, --change-stack-guard-on-fork=enable --shared-files=v8_context_snapshot_data:100 --field-trial-handle
=0,i,2733646951035943041,9436306058465501654,131072
lt-shas+   3414  0.0  0.7 42519028 126964 ?     Sl   09:27   0:02 /opt/google/chrome/chrome --type=renderer --enable-crashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc934603-b51c-4a51-a58b-a
505d650fd6f, --display-capture-permissions-policy-allowed --change-stack-guard-on-fork=enable --lang=en-GB --num-raster-threads=4 --enable-main-frame-before-activation --renderer-client-id=24 --launch-tim
e-ticks=439171581 --shared-files=v8_context_snapshot_data:100 --field-trial-handle=0,i,2733646951035943041,9436306058465501654,131072
lt-shas+   8056  0.6  0.9 46716780 158544 ?     Sl   11:29   0:39 /opt/google/chrome/chrome --type=renderer --enable-crashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc934603-b51c-4a51-a58b-a
505d650fd6f, --display-capture-permissions-policy-allowed --change-stack-guard-on-fork=enable --lang=en-GB --num-raster-threads=4 --enable-main-frame-before-activation --renderer-client-id=55 --launch-tim
e-ticks=2963076221 --shared-files=v8_context_snapshot_data:100 --field-trial-handle=0,i,2733646951035943041,9436306058465501654,131072
lt-shas+   8353  0.0  0.4 34134968 70428 ?      Sl   11:30   0:00 /opt/google/chrome/chrome --type=utility --utility-sub-type=audio.mojom.AudioService --lang=en-GB --service-sandbox-type=none --enable-cr
ashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc934603-b51c-4a51-a58b-a505d650fd6f, --change-stack-guard-on-fork=enable --shared-files=v8_context_snapshot_data:100 --field-trial-handle=0,i,27
33646951035943041,9436306058465501654,131072 --enable-crashpad
lt-shas+   8506  1.5  1.7 42549204 273476 ?     Sl   11:33   1:30 /opt/google/chrome/chrome --type=renderer --enable-crashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc934603-b51c-4a51-a58b-a
505d650fd6f, --display-capture-permissions-policy-allowed --change-stack-guard-on-fork=enable --lang=en-GB --num-raster-threads=4 --enable-main-frame-before-activation --renderer-client-id=68 --launch-tim
e-ticks=3177773483 --shared-files=v8_context_snapshot_data:100 --field-trial-handle=0,i,2733646951035943041,9436306058465501654,131072
lt-shas+   8558  0.0  0.3 42468836 63820 ?      Sl   11:33   0:00 /opt/google/chrome/chrome --type=renderer --enable-crashpad --crashpad-handler-pid=3010 --enable-crash-reporter=bc934603-b51c-4a51-a58b-a
505d650fd6f, --display-capture-permissions-policy-allowed --change-stack-guard-on-fork=enable --lang=en-GB --num-raster-threads=4 --enable-main-frame-before-activation --renderer-client-id=70 --launch-tim
e-ticks=3181007346 --shared-files=v8_context_snapshot_data:100 --field-trial-handle=0,i,2733646951035943041,9436306058465501654,131072
lt-shas+  10159  0.0  0.0   9280  2460 pts/0    S+   13:09   0:00 grep --color=auto chrome
```