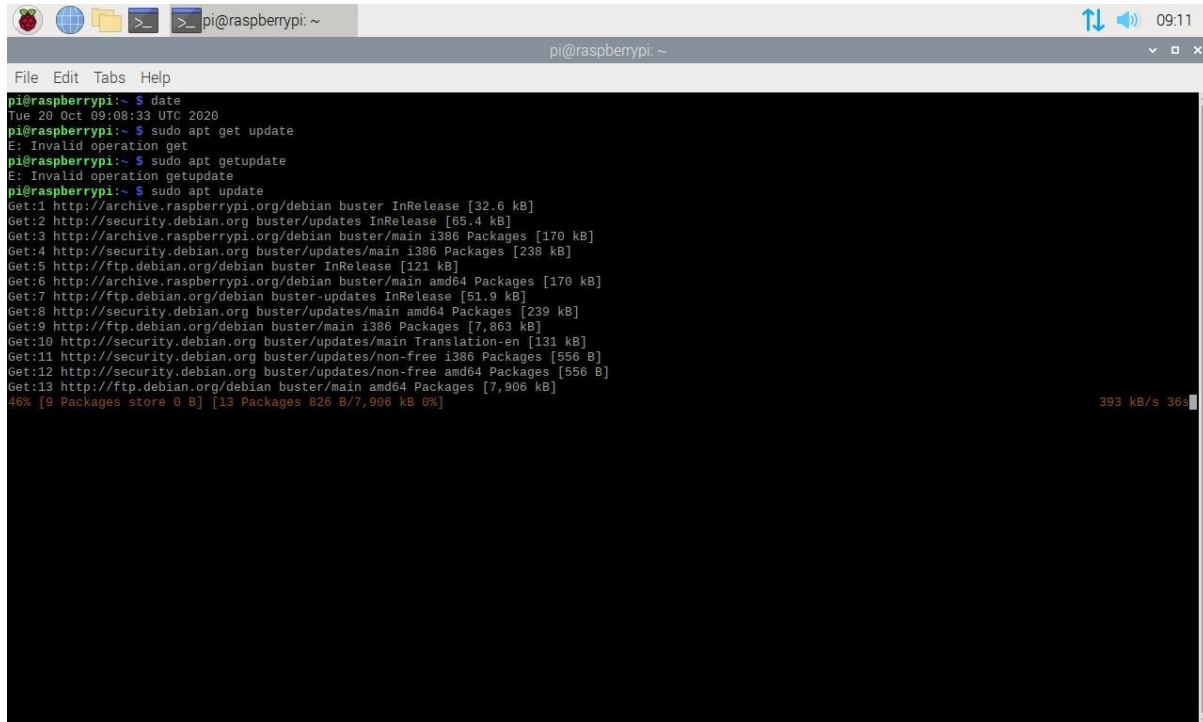


PRACTICAL 2

Commands:

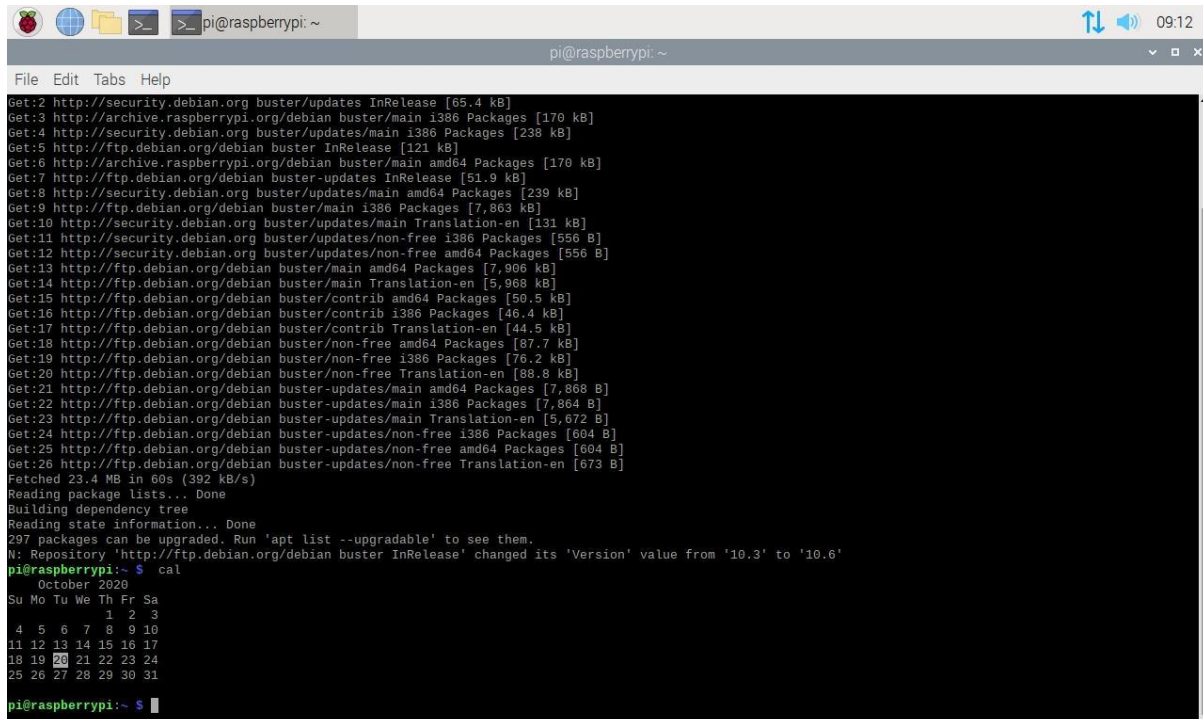
1 Display Date

2 Update and upgrade all software packages



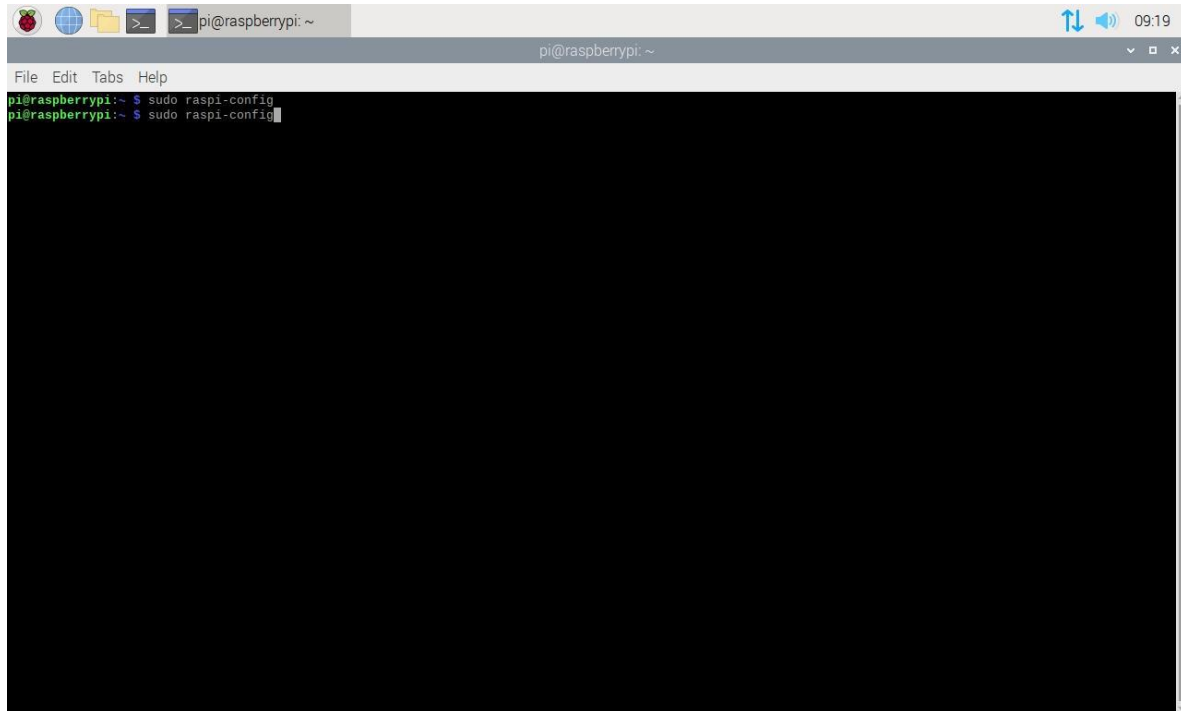
```
pi@raspberrypi:~ $ date
Tue 20 Oct 09:08:33 UTC 2020
pi@raspberrypi:~ $ sudo apt get update
E: Invalid operation get
pi@raspberrypi:~ $ sudo apt getupdate
E: Invalid operation getupdate
pi@raspberrypi:~ $ sudo apt update
Get:1 http://archive.raspberrypi.org/debian buster InRelease [32.6 kB]
Get:2 http://security.debian.org buster/updates InRelease [65.4 kB]
Get:3 http://archive.raspberrypi.org/debian buster/main i386 Packages [170 kB]
Get:4 http://security.debian.org buster/updates/main i386 Packages [238 kB]
Get:5 http://ftp.debian.org/debian buster InRelease [121 kB]
Get:6 http://archive.raspberrypi.org/debian buster/main amd64 Packages [170 kB]
Get:7 http://ftp.debian.org/debian buster-updates InRelease [51.9 kB]
Get:8 http://security.debian.org buster/updates/main amd64 Packages [239 kB]
Get:9 http://ftp.debian.org/debian buster/main i386 Packages [7,863 kB]
Get:10 http://security.debian.org buster/updates/main Translation-en [131 kB]
Get:11 http://security.debian.org buster/updates/non-free i386 Packages [556 B]
Get:12 http://security.debian.org buster/updates/non-free amd64 Packages [556 B]
Get:13 http://ftp.debian.org/debian buster/main amd64 Packages [7,906 kB]
46% [9 Packages store 0 B] [13 Packages 826 B/7,906 kB 0%] 393 kB/s 36s
```

3 Display Calendar



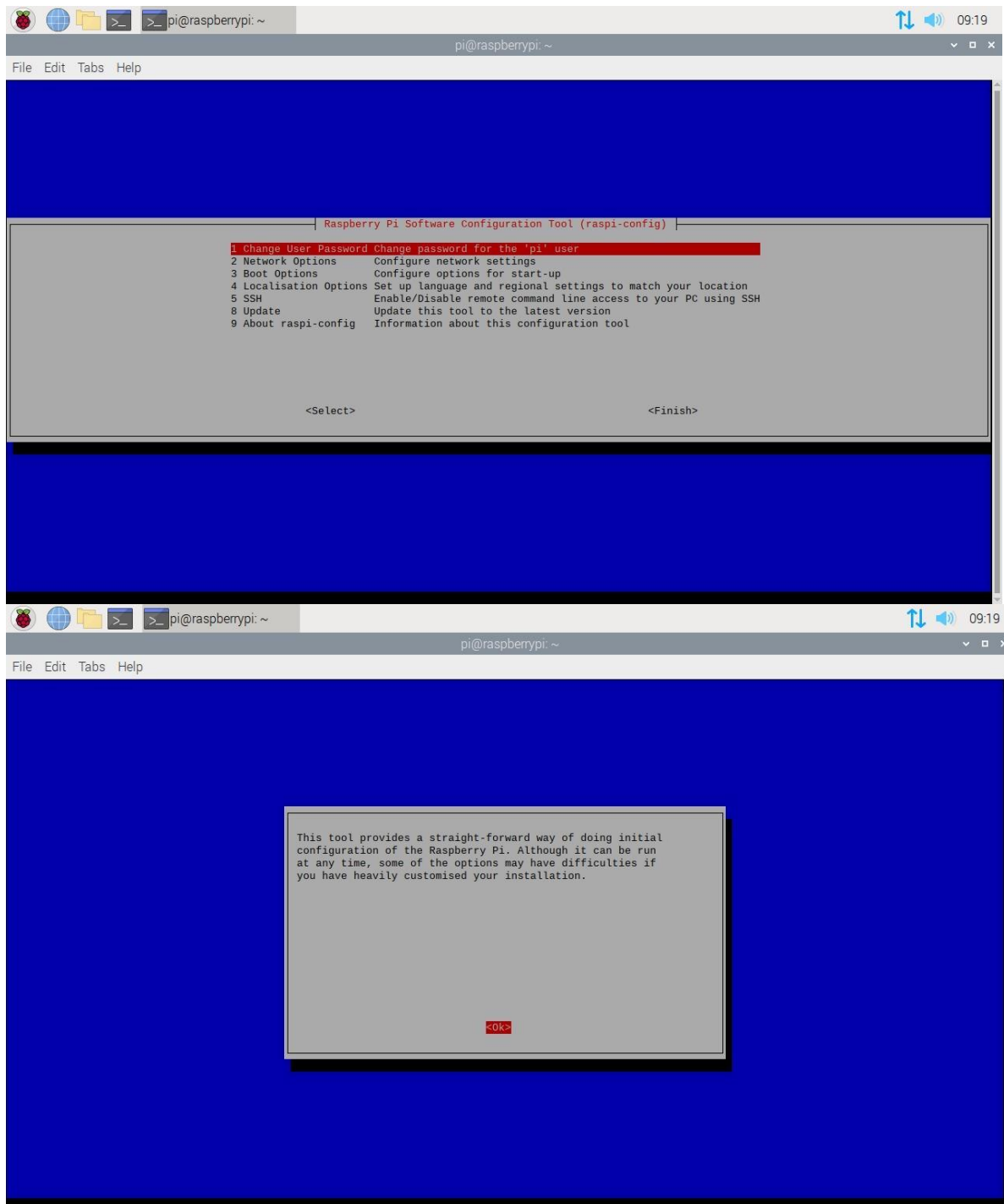
```
Get:2 http://security.debian.org buster/updates InRelease [65.4 kB]
Get:3 http://archive.raspberrypi.org/debian buster/main i386 Packages [170 kB]
Get:4 http://security.debian.org buster/updates/main i386 Packages [238 kB]
Get:5 http://ftp.debian.org/debian buster InRelease [121 kB]
Get:6 http://archive.raspberrypi.org/debian buster/main amd64 Packages [170 kB]
Get:7 http://ftp.debian.org/debian buster-updates InRelease [51.9 kB]
Get:8 http://security.debian.org buster/updates/main amd64 Packages [239 kB]
Get:9 http://ftp.debian.org/debian buster/main i386 Packages [7,863 kB]
Get:10 http://security.debian.org buster/updates/main Translation-en [131 kB]
Get:11 http://security.debian.org buster/updates/non-free i386 Packages [556 B]
Get:12 http://security.debian.org buster/updates/non-free amd64 Packages [556 B]
Get:13 http://ftp.debian.org/debian buster/main amd64 Packages [7,906 kB]
Get:14 http://ftp.debian.org/debian buster/main Translation-en [5,968 kB]
Get:15 http://ftp.debian.org/debian buster/contrib amd64 Packages [50.5 kB]
Get:16 http://ftp.debian.org/debian buster/contrib i386 Packages [46.4 kB]
Get:17 http://ftp.debian.org/debian buster/contrib Translation-en [44.5 kB]
Get:18 http://ftp.debian.org/debian buster/non-free amd64 Packages [87.7 kB]
Get:19 http://ftp.debian.org/debian buster/non-free i386 Packages [76.2 kB]
Get:20 http://ftp.debian.org/debian buster/non-free Translation-en [88.8 kB]
Get:21 http://ftp.debian.org/debian buster-updates/main amd64 Packages [7,868 B]
Get:22 http://ftp.debian.org/debian buster-updates/main i386 Packages [7,864 B]
Get:23 http://ftp.debian.org/debian buster-updates/main Translation-en [5,672 B]
Get:24 http://ftp.debian.org/debian buster-updates/non-free i386 Packages [604 B]
Get:25 http://ftp.debian.org/debian buster-updates/non-free amd64 Packages [604 B]
Get:26 http://ftp.debian.org/debian buster-updates/non-free Translation-en [673 B]
Fetched 23.4 MB in 60s (392 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
297 packages can be upgraded. Run 'apt list --upgradable' to see them.
N: Repository 'http://ftp.debian.org/debian buster InRelease' changed its 'Version' value from '10.3' to '10.6'
pi@raspberrypi:~ $ cal
      October 2020
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
pi@raspberrypi:~ $
```

4 Open configuration setting

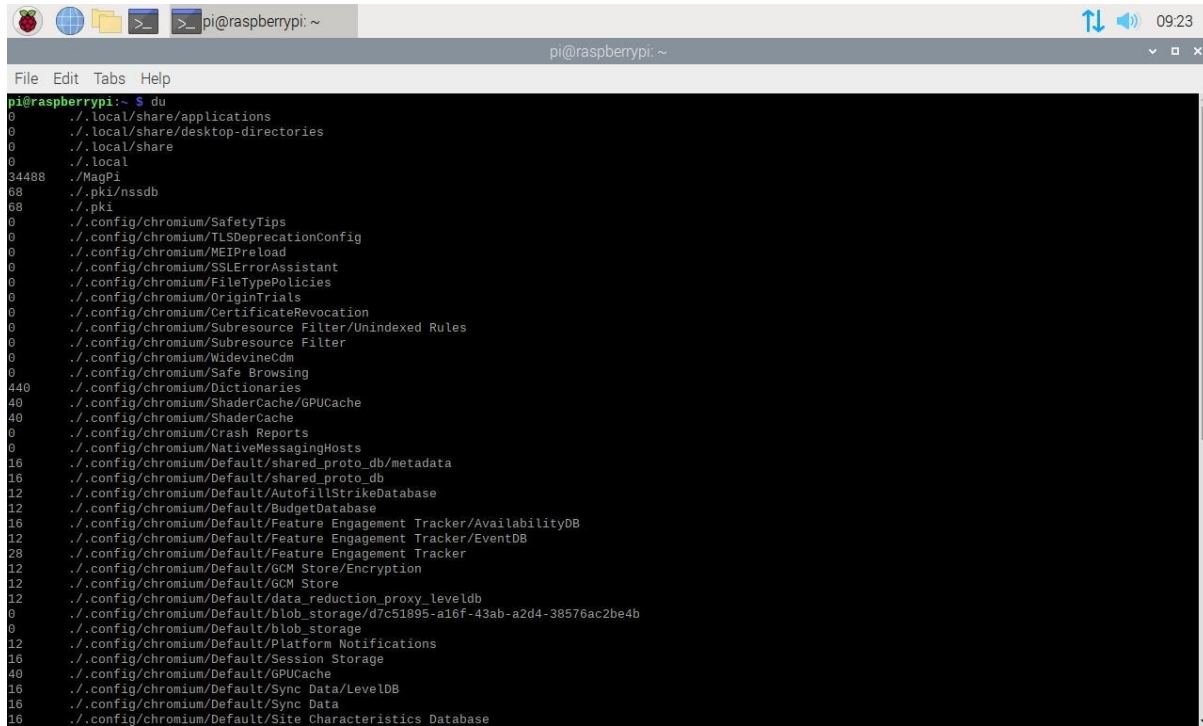


The screenshot shows a terminal window titled 'pi@raspberrypi: ~'. The window has a menu bar with 'File', 'Edit', 'Tabs', and 'Help'. The terminal output shows the command 'sudo raspi-config' being entered twice, with the prompt 'pi@raspberrypi:~\$' appearing before each command. The terminal area is mostly black, indicating that the output of the command is not visible or has been scrolled out of view.

```
pi@raspberrypi:~$ sudo raspi-config
pi@raspberrypi:~$ sudo raspi-config
```

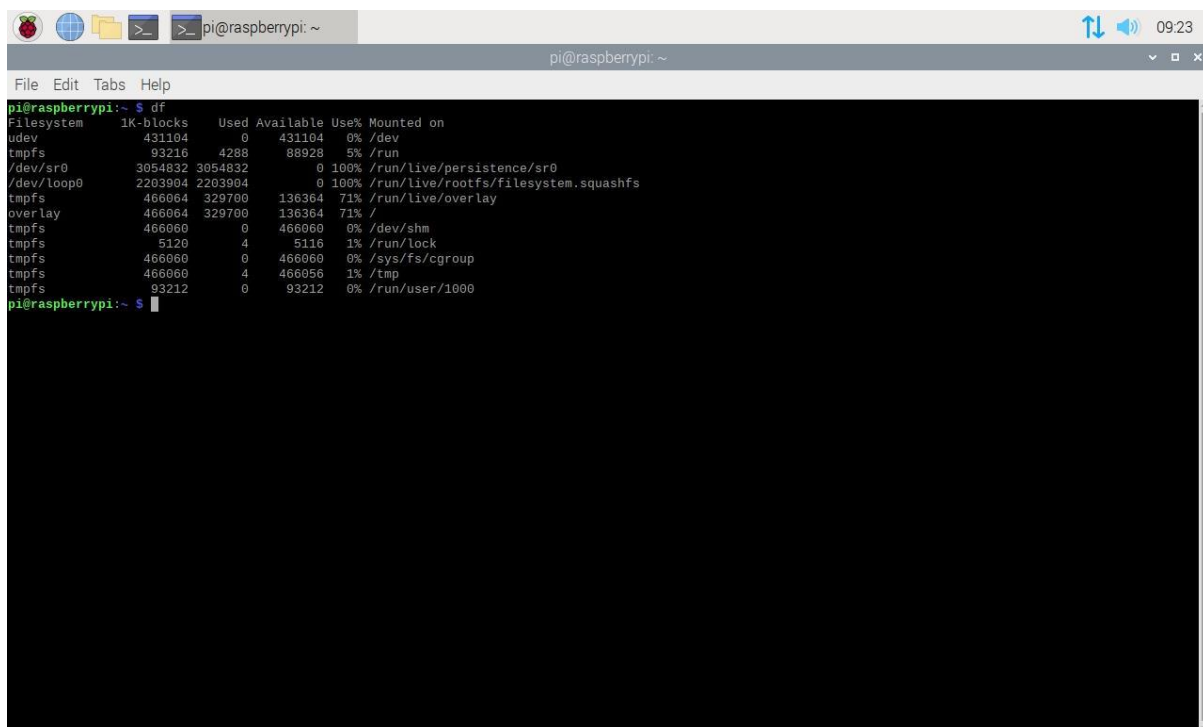


5 Show disk usage



```
pi@raspberrypi: ~  
File Edit Tabs Help  
pi@raspberrypi:~$ du  
0      ./local/share/applications  
0      ./local/share/desktop-directories  
0      ./local/share  
0      ./local  
34488  ./MagPi  
68     ./pki/nssdb  
68     ./pki  
0      ./config/chromium/SafetyTips  
0      ./config/chromium/TLSDeprecationConfig  
0      ./config/chromium/MEIPreload  
0      ./config/chromium/SSLErrorAssistant  
0      ./config/chromium/FileTypePolicies  
0      ./config/chromium/OriginTrials  
0      ./config/chromium/CertificateRevocation  
0      ./config/chromium/Subresource Filter/Unindexed Rules  
0      ./config/chromium/Subresource Filter  
0      ./config/chromium/WidevineCdm  
0      ./config/chromium/Safe Browsing  
440    ./config/chromium/Dictionaries  
40     ./config/chromium/ShaderCache/GPUCache  
40     ./config/chromium/ShaderCache  
0      ./config/chromium/Crash Reports  
0      ./config/chromium/NativeMessagingHosts  
16     ./config/chromium/Default/shared_proto_db/metadata  
16     ./config/chromium/Default/shared_proto_db  
12     ./config/chromium/Default/AutofillStrikeDatabase  
12     ./config/chromium/Default/BudgetDatabase  
16     ./config/chromium/Default/Feature Engagement Tracker/AvailabilityDB  
12     ./config/chromium/Default/Feature Engagement Tracker/EventDB  
28     ./config/chromium/Default/Feature Engagement Tracker  
12     ./config/chromium/Default/GCM Store/Encryption  
12     ./config/chromium/Default/GCM Store  
12     ./config/chromium/Default/data_reduction_proxy_leveldb  
0      ./config/chromium/Default/blob_storage/d7c51895-a16f-43ab-a2d4-38576ac2be4b  
0      ./config/chromium/Default/blob_storage  
12     ./config/chromium/Default/Platform Notifications  
16     ./config/chromium/Default/Session Storage  
40     ./config/chromium/Default/GPUCache  
16     ./config/chromium/Default/Sync Data/LevelDB  
16     ./config/chromium/Default/Sync Data  
16     ./config/chromium/Default/Site Characteristics Database
```

6 Show disk free (Amount of available space in disk)



```

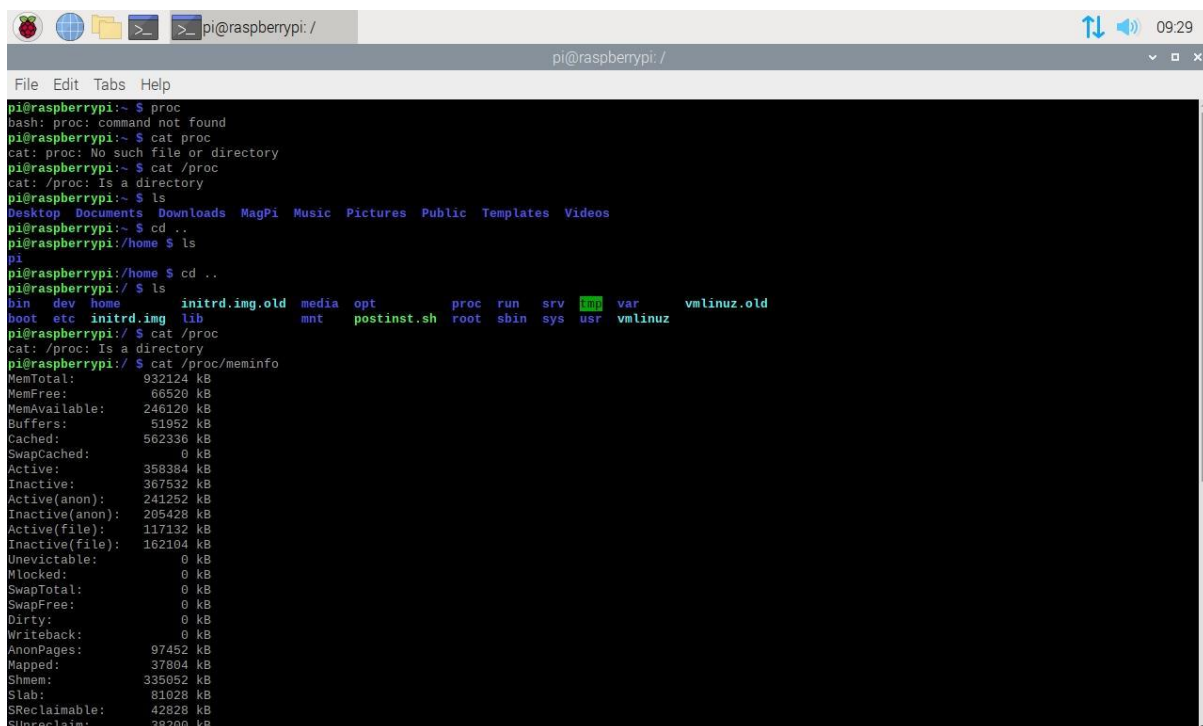
pi@raspberrypi:~ $ df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev            431104         0   431104    0% /dev
tmpfs           93216        4288    88928    5% /run
/dev/sr0        3054832 3054832         0 100% /run/live/persistence/sr0
/dev/loop0      2203904 2203904         0 100% /run/live/rootfs/filesystem.squashfs
tmpfs           466064 329700    136364   71% /run/live/overlay
overlay         466064 329700    136364   71% /
tmpfs           466060         0   466060    0% /dev/shm
tmpfs           5120         4     5116    1% /run/lock
tmpfs           466060         0   466060    0% /sys/fs/cgroup
tmpfs           466060         4   466056    1% /tmp
tmpfs           93212         0    93212    0% /run/user/1000
pi@raspberrypi:~ $

```

7 Proc file system (procf) is virtual file system. It contains the useful information about the processes that are currently running

8 cd to change directory

9 ls to list items



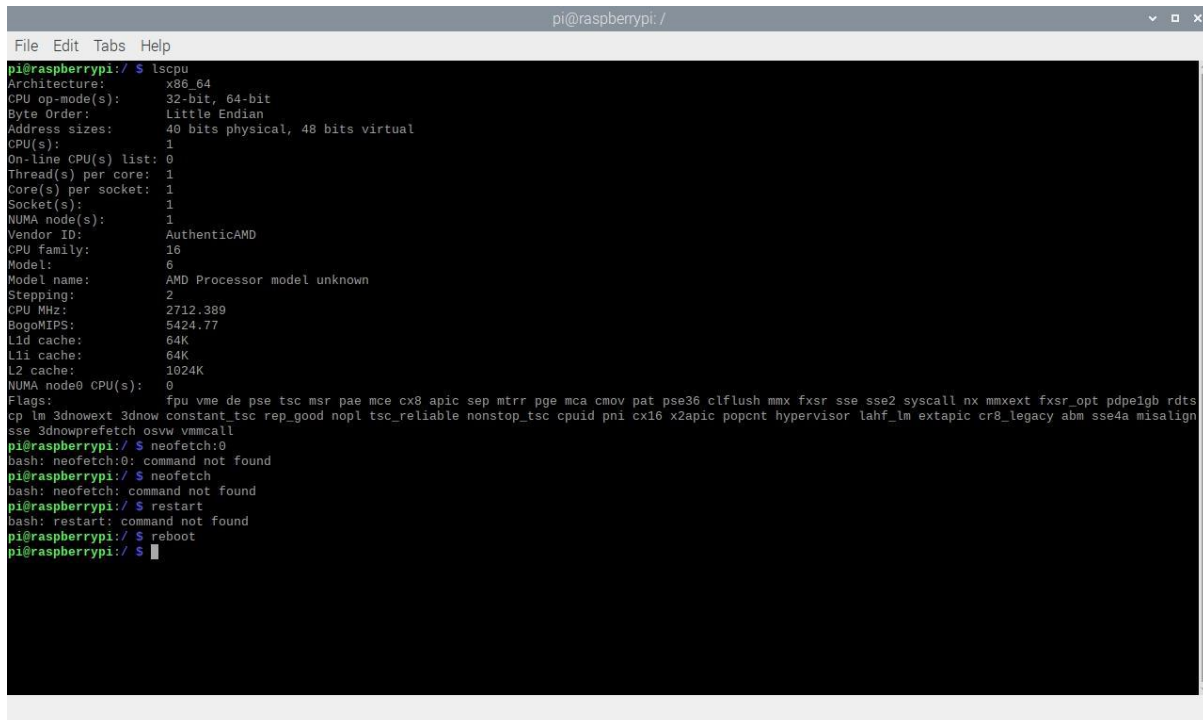
```

pi@raspberrypi:~ $ proc
bash: proc: command not found
pi@raspberrypi:~ $ cat proc
cat: proc: No such file or directory
pi@raspberrypi:~ $ cat /proc
cat: /proc: Is a directory
pi@raspberrypi:~ $ ls
Desktop Documents Downloads MagPi Music Pictures Public Templates Videos
pi@raspberrypi:~ $ cd ..
pi@raspberrypi:/home $ ls
pi
pi@raspberrypi:/home $ cd ..
pi@raspberrypi:/ $ ls
bin  dev  home  initrd.img.old  media  opt  proc  run  srv  tmp  var  vmlinuz  vmlinuz.old
boot  etc  initrd.img  lib  mnt  postinst.sh  root  sbin  sys  usr  vmlinux
pi@raspberrypi:/ $ cat /proc
cat: /proc: Is a directory
pi@raspberrypi:/ $ cat /proc/meminfo
MemTotal: 932124 kB
MemFree: 66520 kB
MemAvailable: 246120 kB
Buffers: 51952 kB
Cached: 562336 kB
SwapCached: 0 kB
Active: 358384 kB
Inactive: 367532 kB
Active(anon): 241252 kB
Inactive(anon): 205428 kB
Active(file): 117132 kB
Inactive(file): 162104 kB
Unevictable: 0 kB
Mlocked: 0 kB
SwapTotal: 0 kB
SwapFree: 0 kB
Dirty: 0 kB
Writeback: 0 kB
AnonPages: 97452 kB
Mapped: 37804 kB
Shmem: 335052 kB
Slab: 81028 kB
SReclaimable: 42828 kB
SUnreclaim: 38200 kB

```

10 Display info about the cpu architecture

11 Reboot system



```
pi@raspberrypi: /
File Edit Tabs Help
pi@raspberrypi:~$ lscpu
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:             Little Endian
Address sizes:          40 bits physical, 48 bits virtual
CPU(s):                 1
On-line CPU(s) list:   0
Thread(s) per core:    1
Core(s) per socket:    1
Socket(s):              1
NUMA node(s):          1
Vendor ID:              AuthenticAMD
CPU family:             16
Model:                  6
Model name:             AMD Processor model unknown
Stepping:               2
CPU MHz:                2712.389
BogoMIPS:               5424.77
L1d cache:              64K
L1i cache:              64K
L2 cache:               1024K
NUMA node0 CPU(s):     0
Flags:                  fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush mmx fxsr sse sse2 syscall nx mmxext fxsr_opt pdpe1gb rdtsc
cp_lm 3dnowext 3dnow constant_tsc rep_good nopl tsc_reliable nonstop_tsc cpuid pni cx16 x2apic popcnt hypervisor lahf_lm extapic cr8_legacy abm sse4a misalign
sse 3dnowprefetch osvw vmcall
pi@raspberrypi:~$ neofetch:0
bash: neofetch:0: command not found
pi@raspberrypi:~$ neofetch
bash: neofetch: command not found
pi@raspberrypi:~$ restart
bash: restart: command not found
pi@raspberrypi:~$ reboot
pi@raspberrypi:~$
```

12 Shut down

