

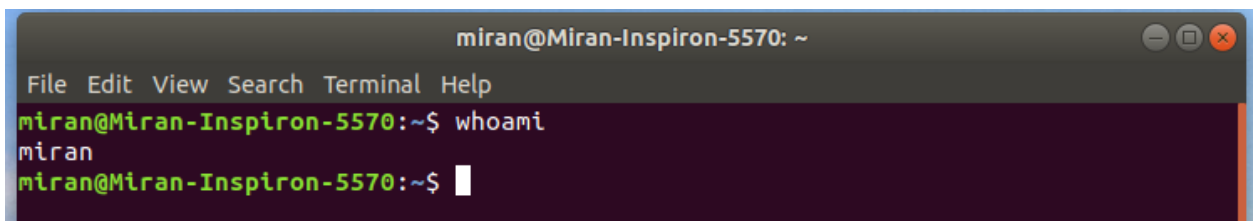
Experiment No: 02

Experiment Name: Basic command of linux

Objective:

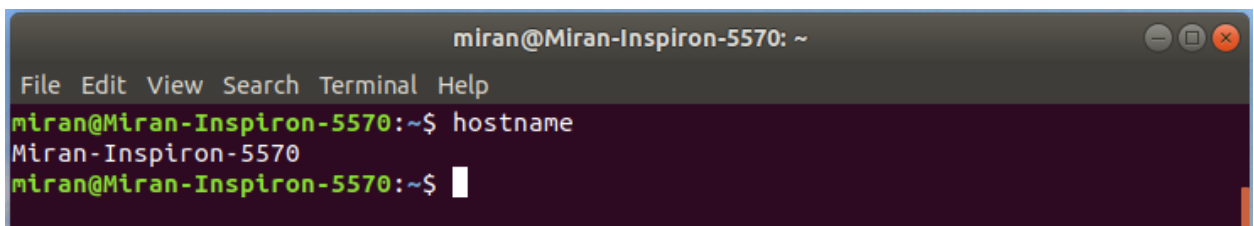
Our aim is to learn some basic command of linux. In this lab we can learn how to use command on terminal so that some things are done by command such as creating file, reading file, delete a file etc.

1. whoami: This command use for find out the current user id.

A terminal window titled 'miran@Miran-Inspiron-5570: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The prompt is 'miran@Miran-Inspiron-5570:~\$'. The command 'whoami' is entered, and the output 'miran' is displayed on the next line. The prompt is then shown again with a cursor.

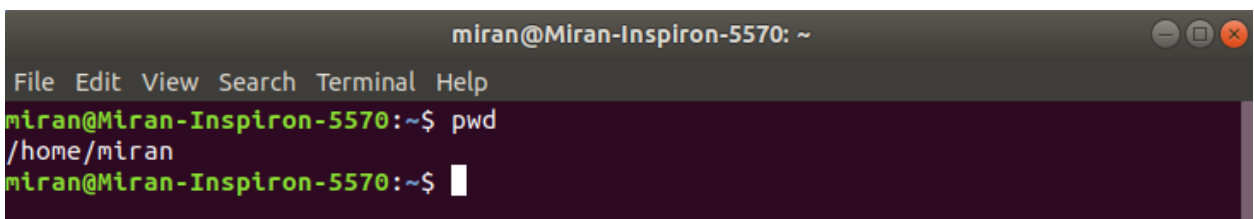
```
miran@Miran-Inspiron-5570: ~  
File Edit View Search Terminal Help  
miran@Miran-Inspiron-5570:~$ whoami  
miran  
miran@Miran-Inspiron-5570:~$
```

2. hostname: This command shows the host name of the system.

A terminal window titled 'miran@Miran-Inspiron-5570: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The prompt is 'miran@Miran-Inspiron-5570:~\$'. The command 'hostname' is entered, and the output 'Miran-Inspiron-5570' is displayed on the next line. The prompt is then shown again with a cursor.

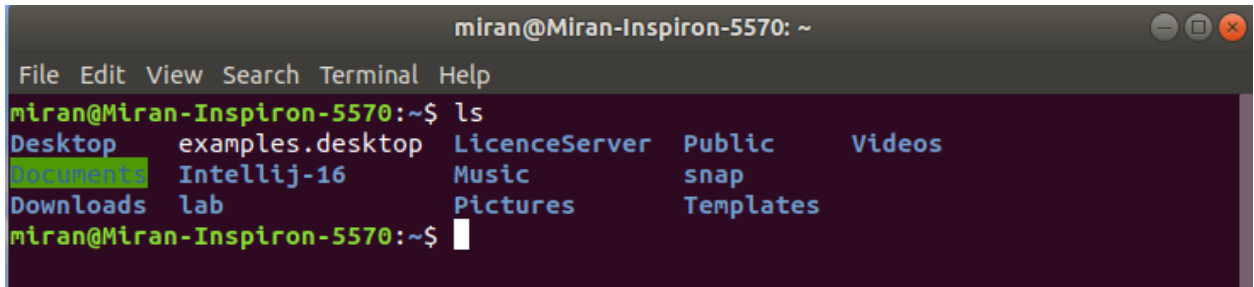
```
miran@Miran-Inspiron-5570: ~  
File Edit View Search Terminal Help  
miran@Miran-Inspiron-5570:~$ hostname  
Miran-Inspiron-5570  
miran@Miran-Inspiron-5570:~$
```

3. pwd: This command shows the current directory .

A terminal window titled 'miran@Miran-Inspiron-5570: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The prompt is 'miran@Miran-Inspiron-5570:~\$'. The command 'pwd' is entered, and the output '/home/miran' is displayed on the next line. The prompt is then shown again with a cursor.

```
miran@Miran-Inspiron-5570: ~  
File Edit View Search Terminal Help  
miran@Miran-Inspiron-5570:~$ pwd  
/home/miran  
miran@Miran-Inspiron-5570:~$
```

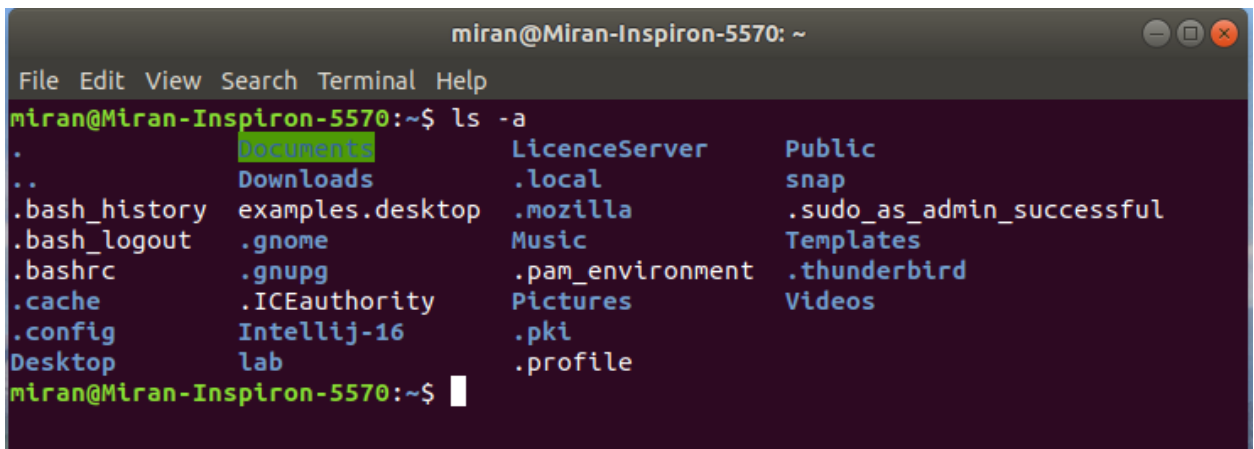
4. **ls**: The ls command shows contents of a directory.



A terminal window titled 'miran@Miran-Inspiron-5570: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The prompt is 'miran@Miran-Inspiron-5570:~\$'. The command 'ls' has been executed, displaying a list of files and directories in a multi-column format: Desktop, examples.desktop, LicenceServer, Public, Videos, Documents, IntelliJ-16, Music, snap, Downloads, lab, Pictures, and Templates. The 'Documents' entry is highlighted with a green background.

```
miran@Miran-Inspiron-5570:~$ ls
Desktop  examples.desktop  LicenceServer  Public  Videos
Documents IntelliJ-16        Music          snap
Downloads lab               Pictures       Templates
miran@Miran-Inspiron-5570:~$
```

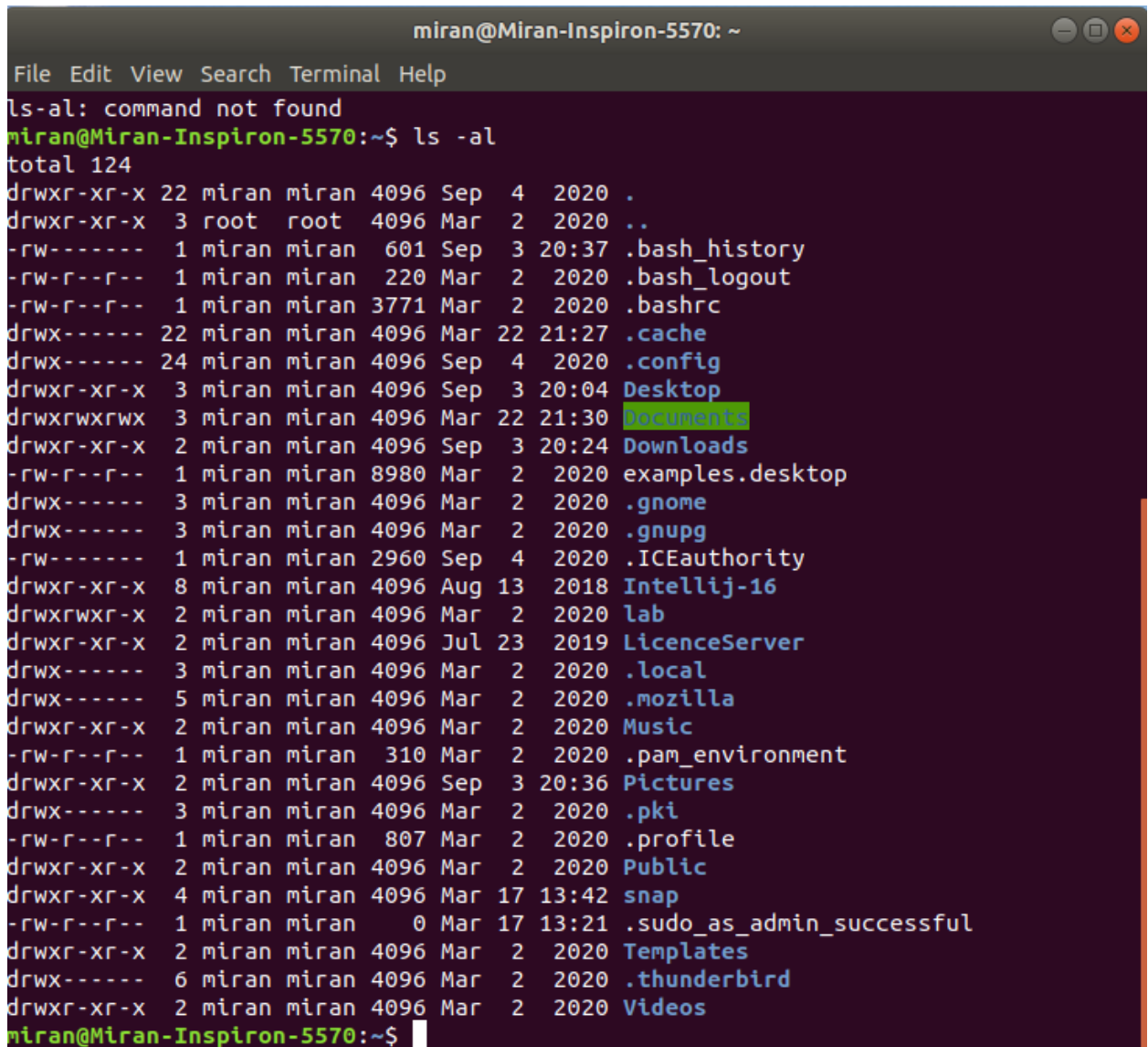
5. **ls -a**: This command shows contents of a directory and also shows the hidden content.



A terminal window titled 'miran@Miran-Inspiron-5570: ~' with a menu bar (File, Edit, View, Search, Terminal, Help). The prompt is 'miran@Miran-Inspiron-5570:~\$'. The command 'ls -a' has been executed, displaying a list of files and directories, including hidden ones, in a multi-column format: ., Documents, LicenceServer, Public, .., Downloads, .local, snap, .bash_history, examples.desktop, .mozilla, .sudo_as_admin_successful, .bash_logout, .gnome, Music, Templates, .bashrc, .gnupg, .pam_environment, .thunderbird, .cache, .ICEauthority, Pictures, Videos, .config, IntelliJ-16, .pki, Desktop, lab, .profile. The 'Documents' entry is highlighted with a green background.

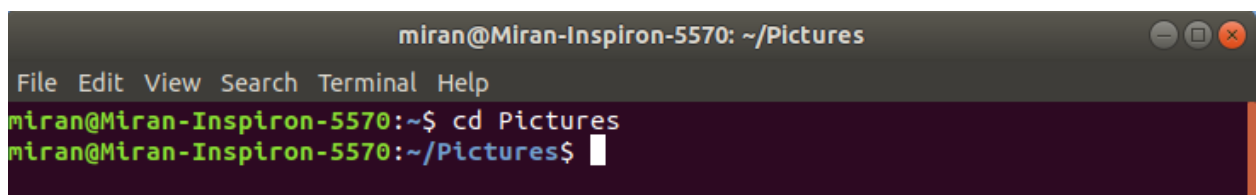
```
miran@Miran-Inspiron-5570:~$ ls -a
.      Documents  LicenceServer  Public
..     Downloads  .local         snap
.bash_history examples.desktop .mozilla       .sudo_as_admin_successful
.bash_logout  .gnome      Music          Templates
.bashrc       .gnupg      .pam_environment .thunderbird
.cache        .ICEauthority Pictures       Videos
.config       IntelliJ-16 .pki
Desktop      lab         .profile
miran@Miran-Inspiron-5570:~$
```

6. **ls -al**: ls -al will list the files and directories with detailed information like the permissions, size, owner, etc.



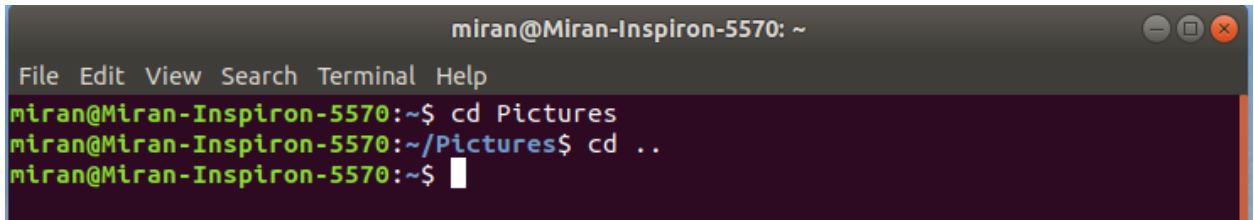
```
miran@Miran-Inspiron-5570: ~  
File Edit View Search Terminal Help  
ls-al: command not found  
miran@Miran-Inspiron-5570:~$ ls -al  
total 124  
drwxr-xr-x 22 miran miran 4096 Sep  4 2020 .  
drwxr-xr-x  3 root  root 4096 Mar  2 2020 ..  
-rw-r--r--  1 miran miran  601 Sep  3 20:37 .bash_history  
-rw-r--r--  1 miran miran  220 Mar  2 2020 .bash_logout  
-rw-r--r--  1 miran miran 3771 Mar  2 2020 .bashrc  
drwx----- 22 miran miran 4096 Mar 22 21:27 .cache  
drwx----- 24 miran miran 4096 Sep  4 2020 .config  
drwxr-xr-x  3 miran miran 4096 Sep  3 20:04 Desktop  
drwxrwxrwx  3 miran miran 4096 Mar 22 21:30 Documents  
drwxr-xr-x  2 miran miran 4096 Sep  3 20:24 Downloads  
-rw-r--r--  1 miran miran 8980 Mar  2 2020 examples.desktop  
drwx-----  3 miran miran 4096 Mar  2 2020 .gnome  
drwx-----  3 miran miran 4096 Mar  2 2020 .gnupg  
-rw-r--r--  1 miran miran 2960 Sep  4 2020 .ICEauthority  
drwxr-xr-x  8 miran miran 4096 Aug 13 2018 IntelliJ-16  
drwxrwxr-x  2 miran miran 4096 Mar  2 2020 lab  
drwxr-xr-x  2 miran miran 4096 Jul 23 2019 LicenceServer  
drwx-----  3 miran miran 4096 Mar  2 2020 .local  
drwx-----  5 miran miran 4096 Mar  2 2020 .mozilla  
drwxr-xr-x  2 miran miran 4096 Mar  2 2020 Music  
-rw-r--r--  1 miran miran  310 Mar  2 2020 .pam_environment  
drwxr-xr-x  2 miran miran 4096 Sep  3 20:36 Pictures  
drwx-----  3 miran miran 4096 Mar  2 2020 .pki  
-rw-r--r--  1 miran miran  807 Mar  2 2020 .profile  
drwxr-xr-x  2 miran miran 4096 Mar  2 2020 Public  
drwxr-xr-x  4 miran miran 4096 Mar 17 13:42 snap  
-rw-r--r--  1 miran miran    0 Mar 17 13:21 .sudo_as_admin_successful  
drwxr-xr-x  2 miran miran 4096 Mar  2 2020 Templates  
drwx-----  6 miran miran 4096 Mar  2 2020 .thunderbird  
drwxr-xr-x  2 miran miran 4096 Mar  2 2020 Videos  
miran@Miran-Inspiron-5570:~$
```

7. **cd**: This command use to change the directoy.



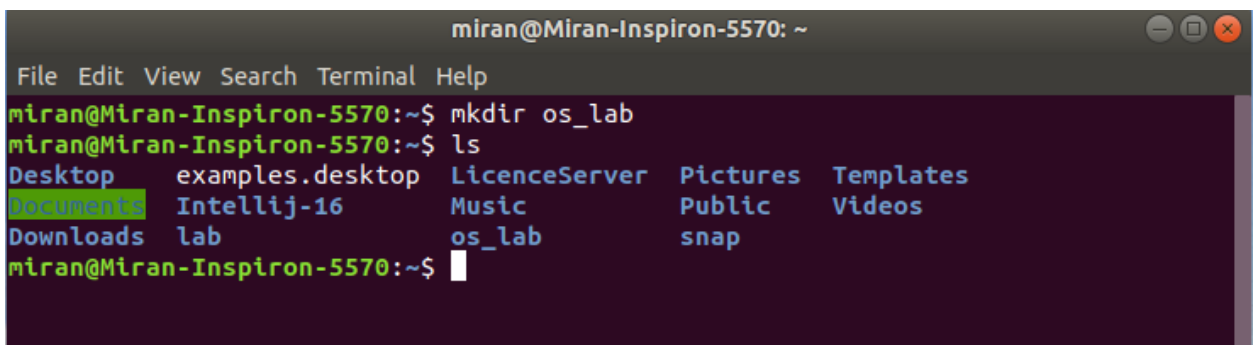
```
miran@Miran-Inspiron-5570: ~/Pictures  
File Edit View Search Terminal Help  
miran@Miran-Inspiron-5570:~$ cd Pictures  
miran@Miran-Inspiron-5570:~/Pictures$
```

8. **cd ..** : This command use to one move directory up.



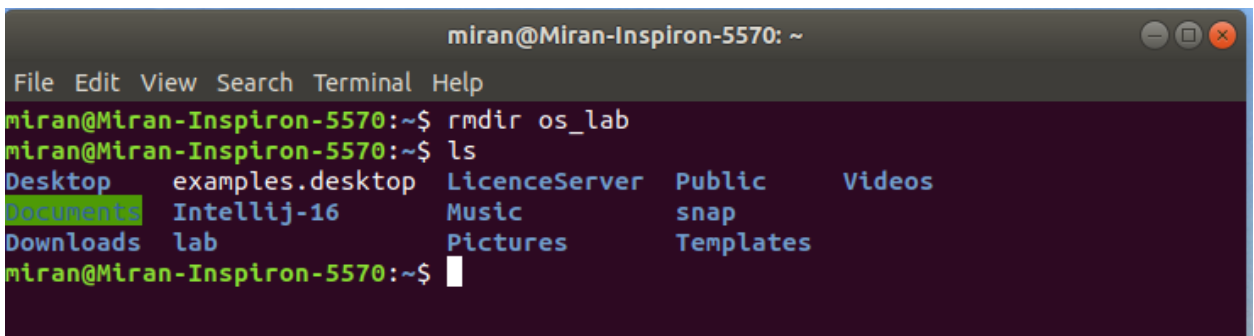
```
miran@Miran-Inspiron-5570: ~  
File Edit View Search Terminal Help  
miran@Miran-Inspiron-5570:~$ cd Pictures  
miran@Miran-Inspiron-5570:~/Pictures$ cd ..  
miran@Miran-Inspiron-5570:~$
```

9. **mkdir**: This command use to make a new directory , if you type mkdir os-lab it will create a directory called os-lab.



```
miran@Miran-Inspiron-5570: ~  
File Edit View Search Terminal Help  
miran@Miran-Inspiron-5570:~$ mkdir os_lab  
miran@Miran-Inspiron-5570:~$ ls  
Desktop      examples.desktop  LicenceServer  Pictures  Templates  
Documents    IntelliJ-16       Music          Public    Videos  
Downloads    lab               os_lab         snap  
miran@Miran-Inspiron-5570:~$
```

10. **rmdir**: This command use to delete a directory but it can only delete when the directory is empty.



```
miran@Miran-Inspiron-5570: ~  
File Edit View Search Terminal Help  
miran@Miran-Inspiron-5570:~$ rmdir os_lab  
miran@Miran-Inspiron-5570:~$ ls  
Desktop      examples.desktop  LicenceServer  Public    Videos  
Documents    IntelliJ-16       Music          snap  
Downloads    lab               Pictures       Templates  
miran@Miran-Inspiron-5570:~$
```

11. **rm -r**: This command is also use for delete a directory and it can also delete with its contents.

```
miran@Miran-Inspiron-5570: ~/Documents
File Edit View Search Terminal Help
miran@Miran-Inspiron-5570:~/Documents$ ls
hello  LicenceServer  miran
miran@Miran-Inspiron-5570:~/Documents$ rm -r hello
miran@Miran-Inspiron-5570:~/Documents$ ls
LicenceServer  miran
miran@Miran-Inspiron-5570:~/Documents$
```

12. **touch**: To create an any type of file by using command line this command is used.

```
miran@Miran-Inspiron-5570: ~/Documents
File Edit View Search Terminal Help
miran@Miran-Inspiron-5570:~/Documents$ ls
LicenceServer  miran
miran@Miran-Inspiron-5570:~/Documents$ touch miran.txt
miran@Miran-Inspiron-5570:~/Documents$ ls
LicenceServer  miran  miran.txt
miran@Miran-Inspiron-5570:~/Documents$
```

13. **echo**: This command shows on terminal which is written after echo command.

```
miran@Miran-Inspiron-5570: ~/Desktop
File Edit View Search Terminal Help
miran@Miran-Inspiron-5570:~/Desktop$ echo hello miran.
hello miran.
miran@Miran-Inspiron-5570:~/Desktop$
```

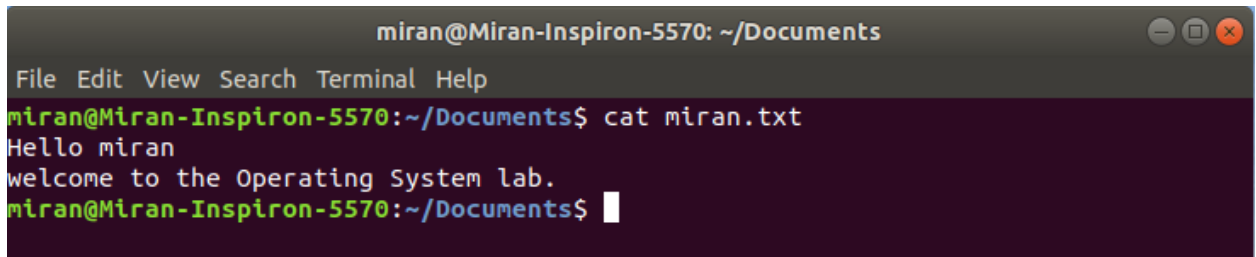
14. **gedit**: This command is working like text editor.

```
miran@Miran-Inspiron-5570: ~/Documents
File Edit View Search Terminal Help
miran@Miran-Inspiron-5570:~/Documents$ gedit
miran@Miran-Inspiron-5570:~/Documents$
```

Open [icon] *Untitled Document 2 Save [icon] [icon] [icon]

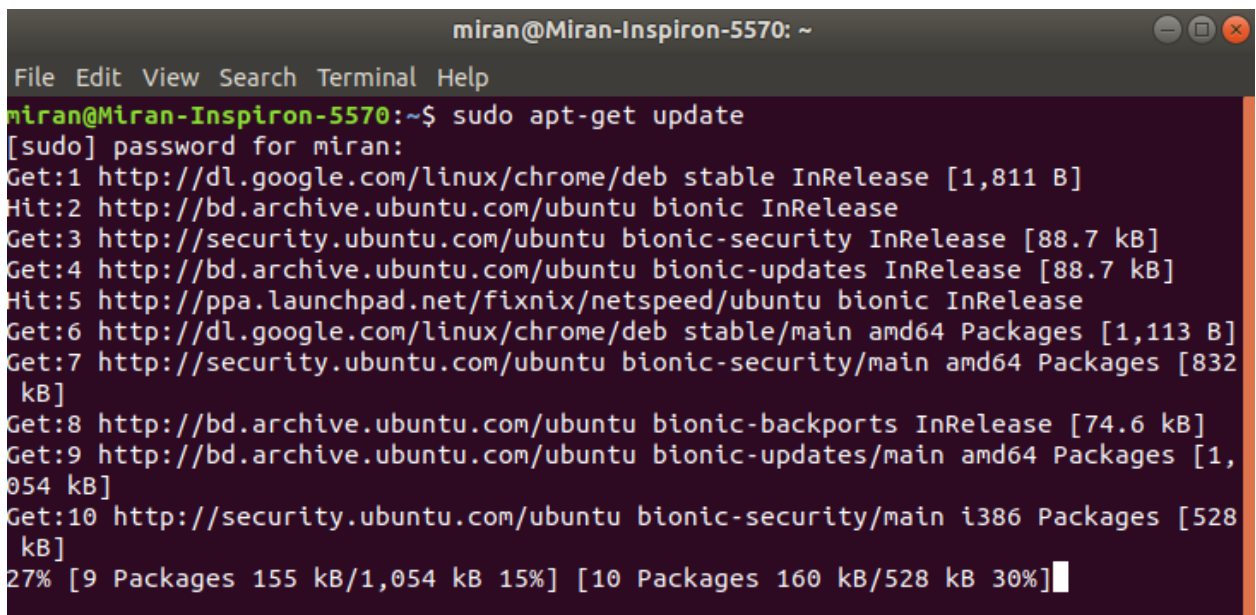
```
hello miran
how are you?
```

15. **cat**: This command is use to read data form a file and shows the output of its content in terminal.

A terminal window titled 'miran@Miran-Inspiron-5570: ~/Documents'. The menu bar includes 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The prompt is 'miran@Miran-Inspiron-5570:~/Documents\$'. The command 'cat miran.txt' has been entered, and the output is displayed: 'Hello miran' and 'welcome to the Operating System lab.' followed by a new line and the prompt 'miran@Miran-Inspiron-5570:~/Documents\$' with a cursor.

```
miran@Miran-Inspiron-5570: ~/Documents
File Edit View Search Terminal Help
miran@Miran-Inspiron-5570:~/Documents$ cat miran.txt
Hello miran
welcome to the Operating System lab.
miran@Miran-Inspiron-5570:~/Documents$
```

16. **sudo**: This command generally use in Linux as a prefix of some command that are only superuser are allowed to run.

A terminal window titled 'miran@Miran-Inspiron-5570: ~'. The menu bar includes 'File', 'Edit', 'View', 'Search', 'Terminal', and 'Help'. The prompt is 'miran@Miran-Inspiron-5570:~\$'. The command 'sudo apt-get update' has been entered. The output shows the process of updating package lists from various sources, including Google Chrome, Ubuntu bionic, security updates, and launchpad. It lists the size of each update (e.g., [1,811 B], [88.7 kB]). At the bottom, it shows progress bars for the updates: '27% [9 Packages 155 kB/1,054 kB 15%]' and '[10 Packages 160 kB/528 kB 30%]' followed by a cursor.

```
miran@Miran-Inspiron-5570: ~
File Edit View Search Terminal Help
miran@Miran-Inspiron-5570:~$ sudo apt-get update
[sudo] password for miran:
Get:1 http://dl.google.com/linux/chrome/deb stable InRelease [1,811 B]
Hit:2 http://bd.archive.ubuntu.com/ubuntu bionic InRelease
Get:3 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Get:4 http://bd.archive.ubuntu.com/ubuntu bionic-updates InRelease [88.7 kB]
Hit:5 http://ppa.launchpad.net/fixnix/netspeed/ubuntu bionic InRelease
Get:6 http://dl.google.com/linux/chrome/deb stable/main amd64 Packages [1,113 B]
Get:7 http://security.ubuntu.com/ubuntu bionic-security/main amd64 Packages [832 kB]
Get:8 http://bd.archive.ubuntu.com/ubuntu bionic-backports InRelease [74.6 kB]
Get:9 http://bd.archive.ubuntu.com/ubuntu bionic-updates/main amd64 Packages [1,054 kB]
Get:10 http://security.ubuntu.com/ubuntu bionic-security/main i386 Packages [528 kB]
27% [9 Packages 155 kB/1,054 kB 15%] [10 Packages 160 kB/528 kB 30%]
```