# Linux Desktop and Commands

Time required: 60 hour

**How to Create Screenshots:** Please use the Windows Snip and Sketch Tool or the Snipping Tool. Paste a screenshot of just the program you are working on. If you are snipping a virtual machine, make sure your focus is outside the virtual machine before you snip.

1. Press and hold down the **Windows key** & **Shift**, then type **S.** This brings up the on-screen snipping tool.
2. Click and Drag your mouse around whatever you want to snip.
3. Release the mouse button. This places the snip into the Windows Clipboard.
4. Go into Word or wherever you want to paste the snip. Hold down **CTRL**, then type **V** to paste the snip.

**NOTE:** You will have already installed Kali Linux for this lab from the previous assignment.

## Common Linux Commands

su – (change logon to root)

sudo (runs a command as root)

ifconfig

ls (lists files or directories)

cd (change directories)

mkdir (makes directories)

rmdir (removes directories)

cp (copy file)

rm (delete file)

chmod (modify file and directory security)

grep (search text file for characters)

passwd (create or change password0

# Practice Linux Commands

Let’s explore a few directories and files in Kali Linux.

1. Log on to Kali Linux.
2. Click the Terminal button on the toolbar.

A screenshot of a computer

Description automatically generated

1. Use the **pwd** command (print working directory) to display the full path to the current directory, which is **/home/user**
2. **Insert a screenshot.**

Click or tap here to enter text.

1. Use the **cd ..** (There is always a space between the command and the argument. For example: **cd space ..** ) command twice to move up one directory to the root of the drive which is a single slash: **/**

**NOTE:** In Windows the root of the drive is indicated by the drive letter: C: for example. In Linux the root of the drive is indicated by a single slash: **/**

1. Use the **ls** command to display the list of files and subdirectories in the /home directory.
2. Use the **ls –l** command to display the results using the long format. (A space must precede the –l parameter.)
3. **Insert a screenshot.**

Click or tap here to enter text.

1. Here is an explanation of the types of information in the list:
   1. **Attributes**: The first 10 characters define the file or directory attributes. The first character identifies the type of item: **d** is a directory; **a** is a regular file, and an **l** indicates the item is a link to another location.  
      The other nine characters define the **r**ead, **w**rite, and **e**xecute permissions assigned to the file or directory.
   2. **Links:** The second column lists the number of links the item has. In Linux, a link is similar to a Windows shortcut to a file or directory.
   3. **Owners:** The third column lists the user owner and the fourth column lists the group that owns the file or directory. In Figure 20-12, the owner is jean and the owner group is also jean.
   4. **Size, date, and name:** The last columns list the size of the file or directory in bytes, the date the item was last modified, and the name of the file or directory.

|  |  |  |
| --- | --- | --- |
| 1 | ls -l | Lists files and directories in the current directory. In Linux, a directory is treated more like a file than a Windows directory. |
| 2 | pwd | Displays the full path to the current directory. When you first log in to a system, that directory is /home/username. |
| 3 | **cd ~** or **cd /home/user**  **pwd**  **mkdir mydir** | Return to your home folder. Either command at the left will work.  Your present working directory: /home/user  Create a directory named mydir. The directory is created in the current directory.  **Insert a screenshot:**  Click or tap here to enter text. |
| 4 | **cd mydir** | Goes to the directory you just created in the /home/user directory. |
| 5 | **touch thisfile** | Creates a blank text file named this**file** in the current directory.  **Insert a screenshot:**  Click or tap here to enter text. |
| 6 | **ls** | Lists current directory contents.  **Insert a screenshot:**  Click or tap here to enter text. |
| 7 | **nano thisfile** | **nano** is a simple command line text editor.  Type something in the file.  **CTRL-S** to save  **CTRL-X** to exit  You should be back at the terminal. |
| 8 | **cat thisfile** | Cat (short for concatenate) is used to quickly view a text file.  **Insert a screenshot:**  Click or tap here to enter text. |
| 9 | ping 127.0.0.1 | Pings the loopback address. Pinging continues until you stop it by pressing Ctrl+C.  **Insert a screenshot:**  Click or tap here to enter text. |
| 10 | ping www.wncc.edu | Pings a web site, a good test to see if a computer is connected to the internet.  **Insert a screenshot:**  Click or tap here to enter text. |
| 11 | ip a | Displays TCP/IP configuration data.  **Insert a screenshot:**  Click or tap here to enter text. |
| 12 | man ip | Displays the page from the Linux Manual about the ifconfig command. Press q to exit. |
| 13 | df -T | Displays free space on the hard drive and the file system used.  **Insert a screenshot:**  Click or tap here to enter text. |
| 14 | poweroff | Poweroff shuts down the operating system. |

# Remove Kali Linux Virtual Machine

Unless you are using Kali Linux for another class, you can remove it.

1. Shutdown Linux.
2. In VirtualBox Manager 🡪 Right Click on the Virtual Machine 🡪 **Remove** 🡪 **Delete All Files**.
3. That’s it!

## Assignment Submission

Attach this completed document to the assignment in Blackboard.