American International University - Bangladesh (AIUB)

Report title : Linux vs Windows Operating System

Name : Anup Karmakar

Id : 19-41068-2

Section : A

Course name : Introduction to Computer Studies

Course Teacher : Supta Richard Philip

Difference between Linux and Windows operating system

It's time to make the big switch from your Windows or Mac OS operating system.

Mac OS uses a UNIX core. Your switch from Mac OS to Linux will be relatively smooth.

It's the Windows users who will need some adjusting. In this tutorial will introduce the Linux OS and compare it with Windows.

Windows Vs. Linux File System

In Microsoft Windows, files are stored in folders on different data drives like C: D: E:

But, in **Linux, files are ordered in a tree structure starting with the root directory**.

This root directory can be considered as the start of the file system, and it further branches out various other subdirectories. The root is denoted with a forward slash '/'.

A general tree file system on your UNIX may look like this.

Windows Vs. Linux: Users

There are 3 types of users in Linux.

1. Regular
2. Administrative(root)
3. Service

Regular User

A regular user account is created for you when you install Ubuntu on your system. All your files and folders are stored in /home/ which is your home directory. As a regular user, you do not have access to directories of other users.

Root User

Other than your regular account another user account called root is created at the time of installation. The root account is a **superuser** who can access restricted files, install software and has administrative privileges. Whenever you want to install software, make changes to system files or perform any administrative task on Linux; you need to log in as a root user. Otherwise, for general tasks like playing music and browsing the internet, you can use your regular account.

Service user

Linux is widely used as a Server Operating System. Services such as Apache, Squid, email, etc. have their own individual service accounts. Having service accounts increases the security of your computer. Linux can allow or deny access to various resources depending on the service.

Note:

4. You will not see service accounts in Ubuntu Desktop version.
5. Regular accounts are called standard accounts in Ubuntu Desktop

In Windows, there are 4 types of user account types.

6. Administrator
7. Standard
8. Child
9. Guest

Windows Vs. Linux: HOME Directory

For every user in Linux, a directory is created as **/home/**

Consider, a regular user account "Tom". He can store his personal files and directories in the directory "/home/tom". He can't save files outside his user directory and does not have access to directories of other users. For instance, he cannot access directory "/home/jerry" of another user account"Jerry".

The concept is similar to C:\Documents and Settings in Windows.

When you boot the Linux operating system, your user directory (from the above example /home/tom) is the **default working directory**. Hence the directory "/home/tom is also called the **Home directory** which is a misnomer.

Windows Vs. Linux: Other Directories

In Windows, System and Program files are usually saved in C: drive. But, in Linux, you would find the system and program files in different directories. For example, the boot files are stored in the /boot directory, and program and software files can be found under /bin, device files in /dev. Below are important Linux Directories and a short description of what they contain.

These are most striking differences between Linux and other Operating Systems. There are more variations you will observe when switching to Linux and we will discuss them as we move along in our tutorials.

Manipulate Terminal with CD Commands

The most frequent tasks that you perform on your PC is creating, moving or deleting Files. Let's look at various options for File Management.

To manage your files, you can either use

10. Terminal (Command Line Interface - CLI)
11. File manager (Graphical User Interface -GUI)