

Lecture 2 Introduction to Linux Notes

1. What is an Operating System?

1. An operating system provides all fundamental features of a computer. An OS enables you to use the computer's hardware providing you the basic tools that make the computer useful.

2. What is a kernel?

1. An OS kernel is a software component that's responsible for managing low-level features of the computer, including the following managing system hardware, memory allocation, CPU time, and program to program interaction.

3. Which other parts aside from the kernel identify an OS?

1. Command-Line Shells
2. Graphical User Interfaces
3. Utility and Productivity Programs
4. Libraries

4. What is linux and linux distribution?

1. Linux is a Unix-like Operating System popular in academic and business environments. Linux consists of a kernel, libraries and utilities that make up the entire operating system. Linux is available in many distributions (any operating system that runs the Linux kernel). Popular Linux distributions include Arch, CentOS, Debian, Fedora, openSUSE, Red Hat, Slackware, Ubuntu and many more.

6. List at least 4 linux characteristics:

1. Linux is open source software
2. Linux is available free of charge
3. Linux is highly scalable and customizable
4. The vast majority of server applications on the internet run on some version of Linux

7. What is Ubuntu?

1. Ubuntu is a Linux distribution, freely available with both community and professional support.

8. What is Debian?

1. Debian is an all-volunteer organization dedicated to developing free software and promoting the ideals of the Free Software community

9. List and define the different types of licensing agreements

1. Open source: the software may be distributed for a fee or free. The source is distributed with the software

2. Closed Source: the software is not distributed with the source code. The user is restricted from modifying the code
3. Freeware: the software is free but the source code is not available
4. Shareware: the software is free on a trial basis
5. Free software: the software is distributed with the source code. The software can be free of charge or obtained by a fee

10. What is Free Software? Define the 4 freedoms.

1. Free software: the software is distributed with the source code. The software can be free of charge or obtained by a fee. The 4 freedoms:
2. FREEDOM 0: use the software for any purpose
3. FREEDOM 1: examine the source code and modify it as you see fit
4. FREEDOM 2: redistribute the software
5. FREEDOM 3: redistribute your modified software

11. What is virtualization?

1. Virtualization is defined as creating virtual versions of something