

Lecture 2 Introduction to Linux Notes

1. What is an Operating System?

A system that provides all the fundamental software features of a computer

2. What is a kernel?

A kernel is a software component that's responsible for managing low level computer features

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

Command line shells, graphical user interfaces, utility and productivity programs, and libraries

4. What is linux?

A popular unix like operating system

5. What is a linux distribution?

distributions of linux include arch, centOS, ubuntu, and more

6. List at least 4 linux characteristics

1. its an open source software
2. its free
3. its highly scalable and customizable
4. can be installed on almost any system

7. What is Ubuntu?

ubuntu is a linux distribution that is free and strives to make software tools accessible by anyone despite their disabilities

8. What is Debian?

debian is an organization that develops free software and is considered the grandfather of a lot of linux distributions

9. List and define the different types of licensing agreements

1. open software: the software and source code is distributed for free or a fee
2. closed software: the software is not distributed with the source code
 1. freeware: software is free but the source code isn't available
 2. shareware: software given on a trial basis
3. free software: software is distributed with the source code free of charge

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

1. freedom 0 use the software for any purpose
2. freedom 1 examine the source code and modify it as you see fit
3. freedom 2 redistribute the software
4. freedom 3 redistribute your modified software

11. What is virtualization?

1. creating virtual versions of something

12. List 3 benefits of virtualization

1. lets you run multiple OSs on one physical machine
2. can be used to keep legacy applications past its life
3. allows applications to be tested before installing them on a host machine

13. What is a hypervisor? Include definitions of the 2 types

1. software or hardware in charge of creating, managing, and running virtual machines + type 1 (bare metal hypervisor): runs directly on the hardware + type 2: runs on top of a operating system

14. What is the difference between Guest OS and Host OS?

1. the host OS is the system running on the computer and the guest OS is the system being virtualized by the virtual machine

15. What is virtualbox?

1. a virtualization product that is open source and works on intel and AMD64 processors