Lecture 2 Introduction to Linux Notes

1. What is an Operating System?

AN operating system provides all fundamentals software features to a computer. It enables the use of the computer hardware providing the basic tools to make the computer useful.

2. What is a kernel?

Is an OS component responsible for all the low-level features in the computer, including managing the hardware, memory allocation, CPU time, and program to program interaction.

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 and linux distribution?

Linux is a **Unix-like** OS popular in academic and business environments. It is available in many distributions (any OS that operates the linux kernel).

5. List at least 4 linux characteristics:

- Open source system
- Free of charge
- Highly scalable
- You can install it on almost every system, since it supports most of processor's architecture.

6. What is Debian?

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

7. List and define the different types of licensing agreements

- **Open source**: the software may be distributed for a fee or free.

- **Closed source**: the software is not distributed with the source code. The user is restricted from modifying the code.

  - **Freeware**: the software is free but the source code is not available.
  - **Shareware**: the software is free on a trial basis.
  - **Free software**: the software is distributed with the source code.

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

- Freedom 0: use the software for any purpose.
- Freedom 1:examine the source code and modify it as you see it.
- Freedom 2: redistribute the software.
- Freedom 3: redistribute the modified software.

9. What is virtualization?

Replication of hardware to simulate a virtual machine inside a physical machine.

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