What is Virtualization

Counterpart of hardware to imitate a virtual machine within a physical machine.Virtualization uses software to generate an synopsis layer on computer hardware that make a single computers hardware component processors and more to be sever into multiple virtual machine. dl

Types of virtualization

server-side virtualization

Server side virtualization software serves up virtual machines.

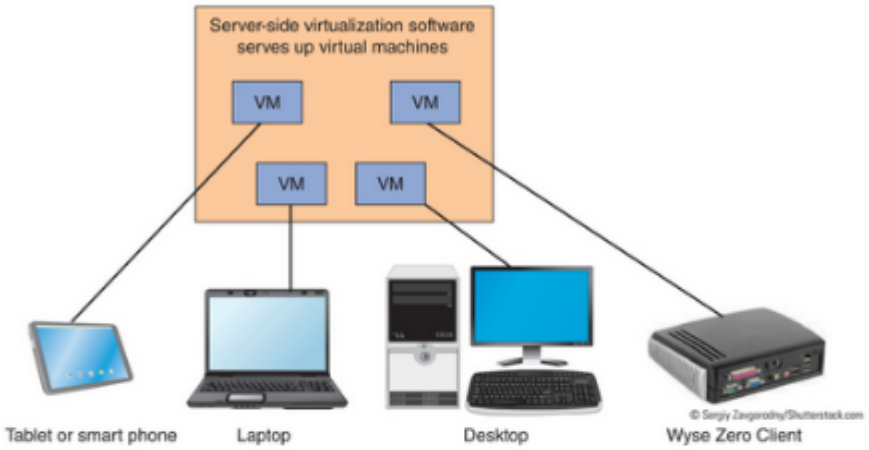


Figure 20-1 Server-side virtualization provides a virtual desktop to each user

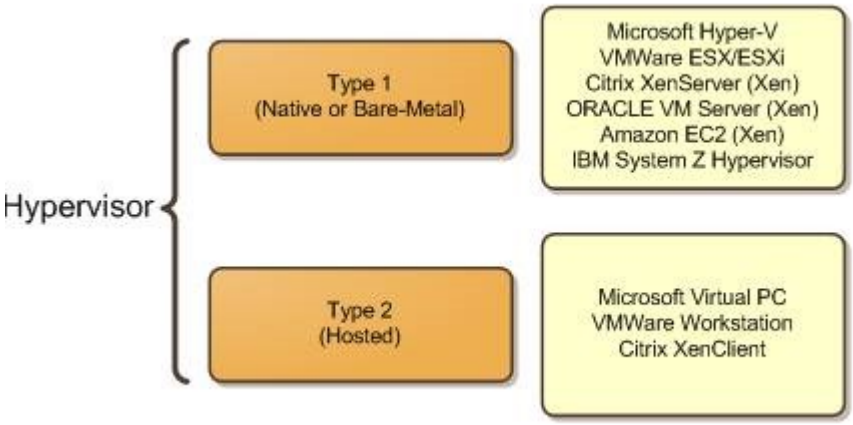
client-side virtualization

- software installed on a computer to manage virtual machine.
- Each VM has its own operating system installed.

Hypervisor:

- A hypervisor that allows the management of virtual machines.
- Hardware support
- capable CPU
- Enough storage

Two types of hypervisors



Virtualbox

- Is a powerful type 2 virtualization product for enterprise as wellas home
- Open source software under GPL verion 2
- Runs on windows,Linux,Macintosh,solaris

How to install virtualbox in windows 10

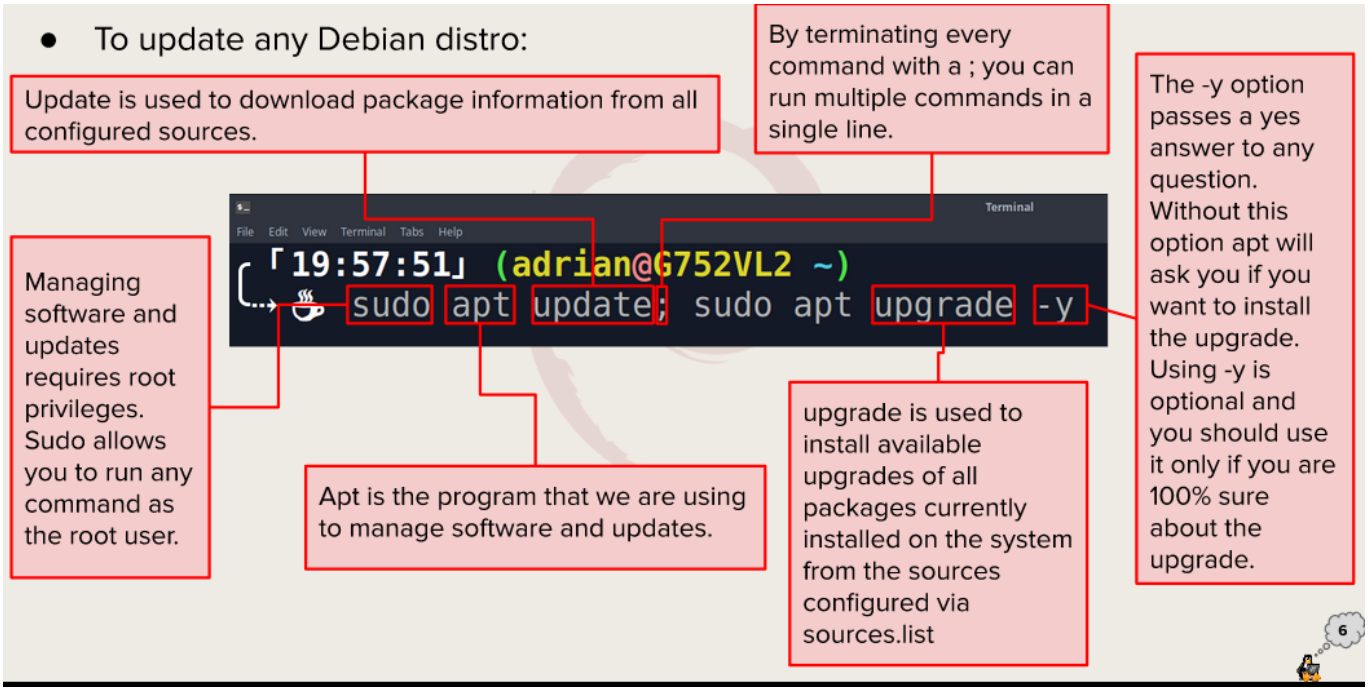
1. Download installer from virtualbox.org.
2. Start installer

3. once installer is done,install extention pack
4. select the amount of ram
5. create virtual hard drive
6. select ISO
7. finish installing
8. turn on the start menu
9.

Installing Ubuntu server

ubuntu 20.04

Updating Ubuntu

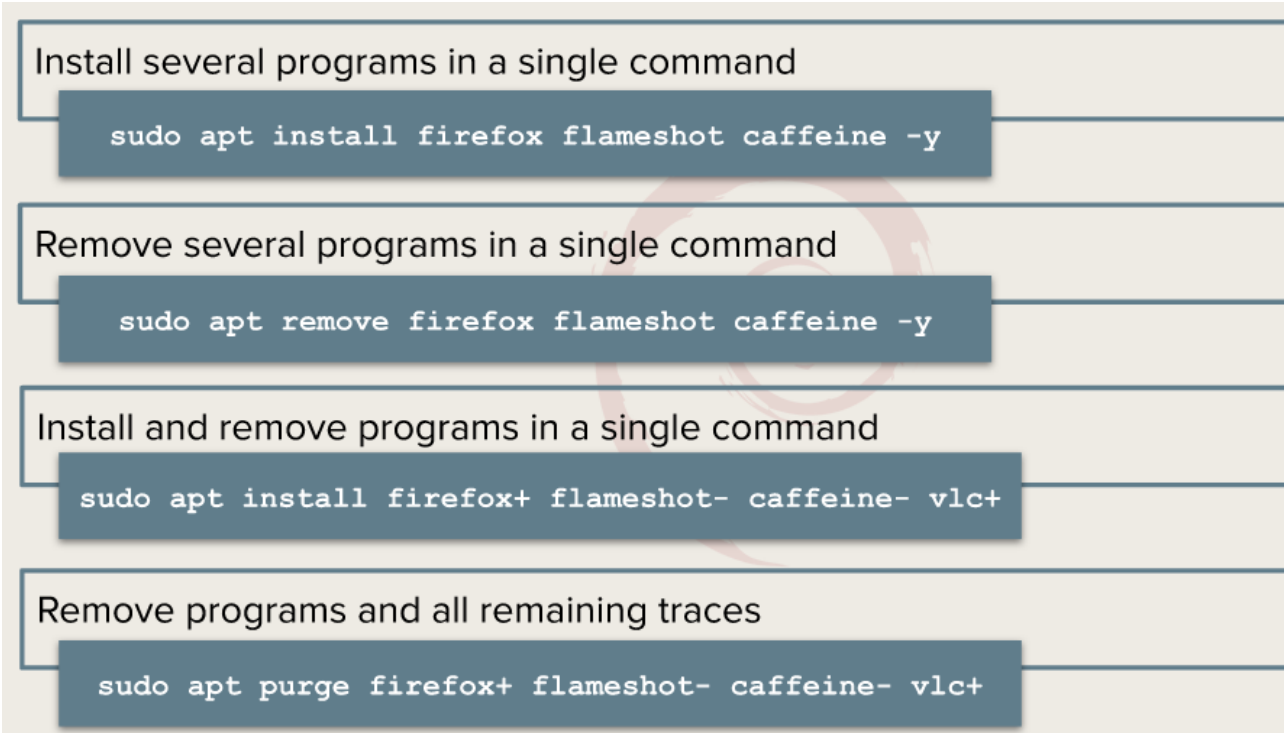


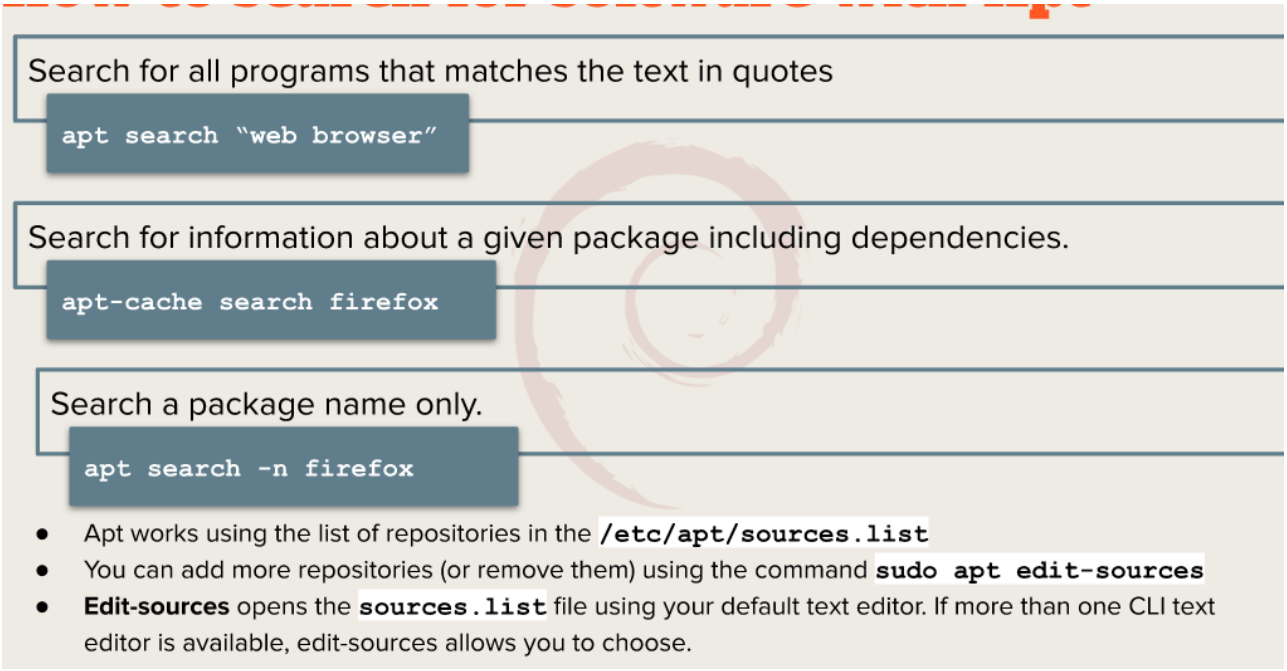
- using ubuntu software update
-

Installing software

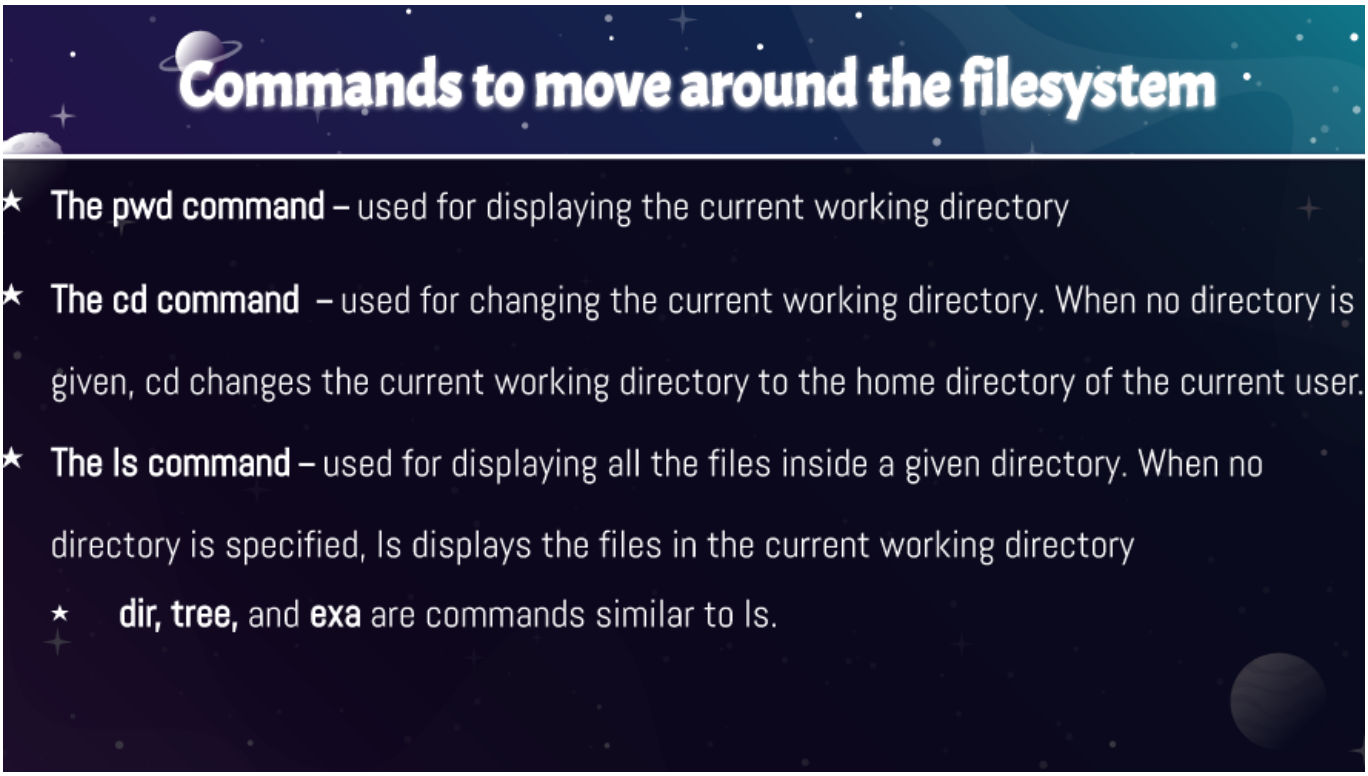
- Installation command examples
- Searching for software
- Deleting software
    - `sudo apt remove + package name`
    - Example:
    - `sudo apt remove vlc`will remove the vlc package. searching
- install option installs the specified package formula sudo + apt + install + package name some useful program
- install several single command
- remove several programs in a single command
- install and remove programs in a single command
- remove programs and all remaining traces

- search for all programs that matches the text quotes
- search aal programs about given a package
- search package only





Basic linux commands



mkdir

- Description:uded for created directories
- Usage: `mkdir + option + new directory path`
- Examples:
  - create a directory in the present working directory
  - `mkdir Wallpaper/'`
- Create a parent directory and child directory
  - `mkdir Wallpaper/cars/new`

Managing files and directories

Creating directories

The mkdir command

- `mkdir` is used for creating a single directory or multiple directories.
- To create a directory with `mkdir` type: `mkdir + the name of the directory.`
- To create multiple directories, separate each directory name with a space.
- You can create directories in the present working directory or in a different directory by using an absolute path or relative path.
- You can create a directory with a space in its name using the escape character (\) or by surrounding the name in quotation marks (‘ ‘ or “ ”).
- If you try to create a directory that already exists, you will get an error notifying you that the file already exists.