

Viva Topics

1. Computer hardware parts and functions

2. Linux Commands

1. man
2. ls, echo, read
3. more, less, cat,
4. cd, mkdir, pwd, find
5. mv, cp, rm ,tar
6. wc, cut, paste
7. head, tail, grep, expr
- 8 chmod, chown
9. Redirections & Piping
10. useradd, usermod, userdel, passwd
11. df,top, ps
- 12 ssh, scp, ssh-keygen, ssh-copy-id

3. File system hierarchy in a common Linux distribution

4. LAMP stack

5. Laravel

Laravel is unsurprisingly one of the most [popular PHP frameworks](#).

How to Install Laravel on Ubuntu

<https://www.hostinger.in/tutorials/how-to-install-laravel-on-ubuntu-18-04-with-apache-and-php/>

1. Install Apache Web Server

2. Install PHP

3. Download and Install a Database Manager

4. Install Composer: Composer is a PHP dependency manager that facilitates the download of PHP libraries in our projects. Composer both works great with and makes it much easier to install Laravel.

5. Install Laravel on Ubuntu Using Composer

6. IP address : An IP address is a unique address that identifies a device on the internet or a local network. IP stands for "Internet Protocol," which is the set of rules governing the format of data sent via the internet or local network.

7. IPv4 : IPv4 uses 32 binary bits to create a single unique address on the network. An IPv4 address is expressed by four numbers separated by dots.

8. Ping and traceroute: are common commands you can use to troubleshoot network problems. Ping is a simple command that can test the reachability of a device on the network. Traceroute is a command you use to 'trace' the route that a packet takes when traveling to its destination.

9. nslookup : is the name of a program that lets an Internet server administrator or any computer user enter a [host](#) name (for example, "whatismyip.com") and find out the corresponding [IP address](#) or domain name system ([DNS](#)) record.

10. A subnet mask : is a number that distinguishes the network address and the host address within an [IP address](#).

11. iptables : *iptables is a command-line firewall utility that uses policy chains to allow or block traffic. When a connection tries to establish itself on your system, iptables looks for a rule in its list to match it to. If it doesn't find one, it resorts to the default action.*

12. Tcpdump: is a command line utility that allows you to capture and analyze network traffic going through your system. It is often used to help troubleshoot network issues, as well as a security tool.

13. Wireshark: is a free and open-source network protocol analyser. With Wireshark, you can capture incoming and outgoing packets of a network in real-time and use it for network troubleshooting, packet analysis, software and communication protocol development, and many more.

14. KVM hypervisor: enables full virtualisation capabilities. It provides each VM with all typical services of the physical system, including virtual BIOS (basic input/output system) and virtual hardware, such as processor, memory, storage, network cards, etc

15. **Docker:** is a software platform that allows you to build, test, and deploy applications quickly. Docker packages software into standardized units called [containers](#) that have everything the software needs to run including libraries, system tools, code, and runtime. Using Docker, you can quickly deploy and scale applications into any environment and know your code will run.