

Deliverable 1

Concepts I don't understand:

- **Apache:** Apache is a webserver that is responsible for accepting HTTP(Hypertext Transfer Protocol) requests from visitors and sending them back the requested information in the form of web pages.
- **UFW:** UFW stands for Uncomplicated Firewall, and it is a fronted platform that enables users to easily manage their firewall functions and commands.
- **Systemd:** Systemd is a system and service manager for Linux, compatible with System V(SysV)and Linux Standard Base init(LSB init) scripts. The main aim is to unify service configuration and behavior across Linux distributions.
- **Init system:** Init is the parent of all processes on the system, it is executed by the kernel and is responsible for starting all other processes.
- **Systemctl:** The command is a utility that is responsible for examining and controlling the systemd system and service manager.
- **Nano:** The GNU nano command is a friendly and convenient text editor, it offers many other extra features like word searching, replacing, jump to a line or column, filename tab completion, and auto-indentation.
- **A2ensite:** It is a command used to enable an Apache2 web server configuration file, known as a site, on an Ubuntu system.

What is a web server? Hardware and software side

- On the **hardware side**, a web server is a computer that stores web server software and a website's component files (for example. HTML documents, images, CSS stylesheets, and JavaScript files). A web server connects to the Internet and supports physical data interchange with other devices connected to the web.
- On the **software side**, a web server includes several parts that control how web users access hosted files. At a minium, this is an HTTP server. An HTTP server is software that understands URLs(web addresses) and HTTP(protocol your browser uses to view webpages) An HTTP server can be accessed through the domain names of the websites it stores, and it delivers the content of these hosted websites to the end user's device.

What are some different web server applications?

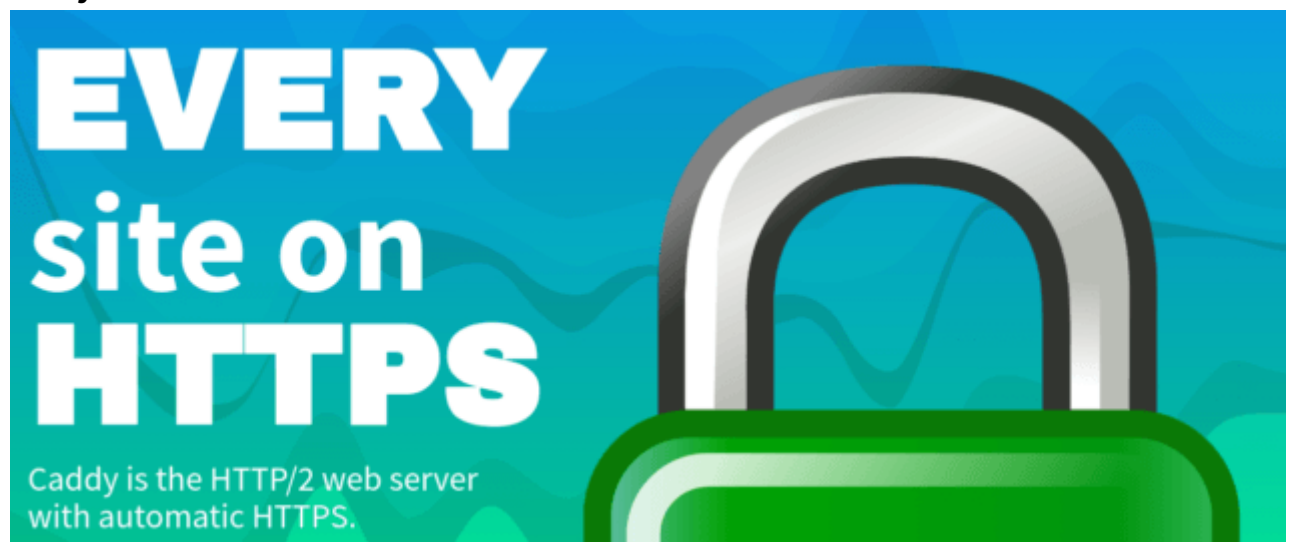
- Apache



- Nginx

NGINX

- Caddy





- Lighttpd
- OpenLiteSpeed



- Cherokee

What is virtualization?

- Virtualization is a replication of hardware to simulate a virtual machine inside a physical machine.
- Two general types of virtualization:
 - server-side virtualization: Virtual Desktop Infrastructure(VDI)
 - client-side virtualization: Software installed on a computer to manage virtual machines.

What is virtualbox?

- VirtualBox is a powerful type 2 virtualization product for enterprise as well as home use.
- Open Source Software under the GPL version 2
- Runs on:
 - Windows
 - Linux
 - Macintosh

- Solaris
- Supports a large number of guest operating systems.

What is a virtual machine?

- A Virtual Machine is a compute resource that uses software instead of a physical computer to run programs and deploy apps.

What is Ubuntu Server?

- Ubuntu Server is a part of the larger set of Ubuntu products and operating system developed by Canonical Ltd. Ubuntu server is a specific addition that differs a little bit from Ubuntu desktop, in order to facilitate installation on servers.

What is a firewall?

- A firewall is a network security device that prevents unauthorized access to a network. It inspects incoming and outgoing traffic using a set of security rules to identify and block threats.
- A firewall can be physical hardware, digital software, software as a service(SaaS) or a virtual private cloud.
- Firewalls are used in both personal and enterprise settings, and many devices, including Mac, Windows and Linux computers, come with a built-in firewall. They're widely considered an essential component of network security.

What is SSH?

- SSH, also known as Secure Shell or Secure Socket Shell, is a network protocol that gives users, particularly system administrators, a secure way to access a computer over an unsecured network.
- SSH also refers to the suite of utilities that implement the SSH protocol. Secure Shell provides strong password authentication and public key authentication, as well as encrypted data communications between two computers connecting over an open network, such as the internet.