

# Deliverable 1

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## Concepts I don't understand:

- *UFW firewall:* Uncomplicated Firewall (UFW) is a program for managing a netfilter firewall designed to be easy to use.
- *Apache:* Apache is a free and open-source software that allows users to deploy their websites on the internet.
- *Virtual hosting:* is a method for hosting multiple domain names, This allows one server to share its resources, such as memory and processor cycles, without requiring all services provided to use the same host name.
- *umask value:* a four-digit octal number that UNIX uses to determine the file permission for newly created files.

## What is a web server? Hardware and software side

- A web server is a system (hardware and software) that stores, processes, and delivers web pages and other content to users over the internet. When a user's browser requests a page, the web server retrieves the requested content and sends it back to the user's device, usually via the Hypertext Transfer Protocol (HTTP)

### Hardware:

- This is the physical computer where websites are stored. It's designed to handle many users and stay running all the time.

### Software :

- This is the program on the server that delivers web pages to people's browsers. Examples include Apache and Nginx.

## What are some different web server applications?

- Web servers are used to process and manage HTTP requests and responses from the client system, but it also perform other functions as: store and protect website data, control bandwidth to regulate network traffic,server-side web scripting and virtual hosting.

Application Name	license	Project's Website
Nginx	Simplified BSD License.	<a href="#">Nginx</a>
Apache	Apache License 2.0	<a href="#">Apache</a>
Internet Information Services	Part of Windows NT	<a href="#">IIS</a>

### Nginx

Nginx is a lightweight, high-performance web/proxy server and a proxy for email protocols. It is free and open source software, licensed under the simplified BSD License; there is also a commercial version

distributed under the name Nginx Plus.

## Apache

The Apache HTTP Server is a free and open-source cross-platform web server software, released under the terms of Apache License 2.0. It is developed and maintained by a community of developers under the auspices of the Apache Software Foundation

## IIS

Internet Information Services or IIS is a web server and a set of services for Microsoft Windows operating system. It was originally part of the Windows NT Option Pack.

## What is virtualization?

- Virtualization is a technology that allows you to create multiple simulated environments or dedicated resources from a single, physical hardware system.

## What is virtualbox?

- VirtualBox is a free and open-source virtualization software developed by Oracle Corporation. It allows users to run multiple operating systems on a single physical machine as virtual machines.

## What is a virtual machine?

- A virtual machine is a software-based emulation of a physical computer. It runs an operating system and applications just like a physical computer, but it exists as a software-defined entity hosted on a physical machine.

## What is Ubuntu Server?

- Ubuntu Server is a version of the Ubuntu operating system made for running on servers. It's used for tasks like hosting websites and managing data.

## What is a firewall?

- A firewall is a security system that monitors and controls incoming and outgoing network traffic based on predetermined security rules.

## 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.