Deliverable 1

Project Description

This article will walk you through the process of installing the Apache webserver on Ubuntu 20.04. It entails controlling the Apache2 services, allowing the webserver port via the firewall, testing the Apache2 installation, and setting a Virtual Host environment.

Project Hardware and Software Requirement

Hardware requirement

- 2 GHz dual core processor or better.
- 4 GB system memory.
- 25 GB of free hard drive space.
- Internet access is helpful.
- Either a DVD drive or a USB port for the installer media.

Software Requirement

- install VirtualBox if you are running on window and not linux.
- Ubuntu Server 20.04 LTS ubuntu Install
- Apache2
- Secure Shell (SSH) access to your server
- Basic Linux command line knowledge

What is Linux

Linux is a free and open source operating system (OS). An operating system is the software that directly handles the hardware and resources of a system, such as the CPU, memory, and storage. The operating system (OS) lies between applications and hardware, connecting all of your software to the actual resources that do the job.

Short History of Linux

- Linux announces the kernel to the world (1991)
- Slackware Linux (1993)
- Debian Linux starts (1993)
- GNOME (1997)
- Corel Linux desktop (1999)
- IBM invests a billion dollars in Linux (2000)
- Ubuntu arrives (2004)
- Linux rules supercomputers.(2004)

Linux Retribution

- **Slackaware**:is an advanced Linux operating system created by Patrick Volkerding with the dual aims of simplicity of use and reliability as high priority. Slackware brings the best of both worlds to the table, combining the newest popular software with a sense of heritage, delivering simplicity and ease of use alongside flexibility and power.

- **Debian**: is an all-volunteer organization committed to producing free software and supporting the ideas of the Free software movement. The Debian project began in 1993, when Ian Murdock assembled a group of developers to produce a consistent linux distribution. Along with slackware and open source, Debian is considered as the "Grandfather" of all Linux distributions. Ubuntu was designed to be a more user-friendly version of Debian, and over time it has grown to become a major distribution in its own right, with other distributions utilizing it as a foundation.

> **Debian Based Linux Distributions**

> **Ubuntu**: Ubuntu is a full desktop Linux operating system that is free to use and has both community and professional support. The Ubuntu community is based on the ideas enshrined in the Ubuntu Manifesto: that software should be available for free, that software tools should be usable by people in their native language and regardless of disability, and that people should have the freedom to customize and alter their software in any way they see fit.

> **Kali Linux**:Kali Linux (previously BackTrack) is a Debian-based distribution that includes a suite of security and forensics tools. It includes regular security updates, ARM architecture compatibility, a choice of four popular desktop environments, and smooth upgrades to newer versions.

- **Red Hat Enterprise Linux**: is a Linux distribution designed for the commercial sector by Red Hat. Red Hat Enterprise Linux is available in server and desktop variants for the x86, x86 64, Itanium, PowerPC, and IBM System z architectures. The Red Hat Enterprise Linux platform is the focus of all official Red Hat support and training, as well as the Red Hat Certification Program.

> **Fedora**: is a Red Hat-owned Linux distribution developed by the community-supported Fedora Project. Fedora Linux has software given under a free and open-source license, and it aspires to be at the forefront of such technology. Fedora has a reputation for concentrating on innovation, early integration of new technologies, and tight collaboration with upstream Linux groups. The GNOME desktop environment is the default desktop environment in Fedora Linux, and the GNOME Shell is the default interface.

Open Source VS Closed Source

The word "open source" initially related to open source software (OSS). Open source software is code that is intended to be publicly available—anyone can view, alter, and distribute it as they see appropriate. Closed source is a Intellectual property, particularly computer source code, that its developers do not make available to the broader public fit.

Advantage/Disadvantage of Open Source

Advantage	Disadvantage
Cost Effective	User Friendly
Reliability	Security

Advantage	Disadvantage
Flexibility	Compatibility
Scalability	Maintenance
Licensing	Drivers

Advantage/Disadvantage of Closed Source

Advantage	Disadvantage
User Friendly	Cost
Security	Adaptation
Support	Upselling
Testing	Reliability
Updates	Licensing

The Free software movement

The free software movement is a social movement whose purpose is to gain and secure certain freedoms for software users, especially the freedoms to run software, study software, alter software, and distribute copies of software whether modified or not.

Source

Class Module https://www.hitechwhizz.com https://distrowatch.com/ https://ubuntu.com/