

# Final Project Deliverable 1

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## Questions and Answers:

### 1. What is a web server? (Hardware and software side)

**Hardware:** The physical machine that stores and processes data for websites. It connects to the internet and serves web pages to users' browsers. **Software:** The application that handles HTTP requests, manages content delivery, and serves web pages. Examples include Apache, Nginx, and Microsoft IIS.

### 2. What are some different web server applications?

- **Apache HTTP Server:** Popular open-source web server.
- **Nginx:** Known for its performance and ability to handle many concurrent connections.
- **Microsoft Internet Information Services (IIS):** Integrated with Windows Server.
- **LiteSpeed:** Known for speed and efficiency.
- **Node.js:** JavaScript runtime that can also be used to serve web content.

### 3. What is virtualization?

The creation of a virtual version of something, such as an operating system, server, or storage device, which allows for multiple virtual instances on a single physical hardware resource.

### 4. What is VirtualBox?

An open-source virtualization software developed by Oracle. It allows users to run multiple operating systems simultaneously on a single physical machine.

### 5. What is a virtual machine?

A software-based emulation of a physical computer. It runs an operating system and applications just like a physical computer.

### 6. What is Ubuntu Server?

A version of the Ubuntu operating system optimized for use on servers. It is known for its robustness, security, and open-source nature.

### 7. What is a firewall?

A security device or software that monitors and controls incoming and outgoing network traffic based on predetermined security rules. It acts as a barrier between a trusted internal network and untrusted external networks.

### 8. What is SSH?

**Secure Shell (SSH):** A protocol used to securely connect to a remote computer over a network. It provides encrypted communication and is commonly used for remote login and command execution.