Managing a Web Server – Lab 1: Installation

Introduction

This is the first Lab in Managing a Web Server, to complete this you will need a Debian ISO. These ISO's are available from debian.org. You can use Virtualbox or Vmware workstation/player (or any hypervisor) for this task, the important step is that you install a 64-bit GNU/Linux Debian operating system in a virtual machine, which has internet access. If you wish to use Ubuntu, or another operating system please be aware that the labs are written for Debian, so things like sudo and PPA's are not included, also the package management system apt is used in the labs, if you wish to adapt another operating system, it is your responsibility to translate the labs for that particular OS.

Aim

Create a PDF that shows how to install Debian 10 and Apache 2.

Part 1: Get Debian & Create VM

1.1 If you do not have a copy of the ISO. Go to debian.org, click on 'Getting Debian,' choose a small installation image, and select amd64 (this just means 64-bit) for the architecture, download the iso.

1.2 In your virtual machine software create a new virtual machine, give it a name, choose Linux 64-bit for the type, create a virtual disk, dynamically expanding volume, assign the disk no more than 8Gb of storage space, give the virtual machine a minimum of 1024Mb of RAM.

1.3 In your virtual machine software go to the newly created virtual machine, go to storage and attach the Debian iso to the virtual optical disk drive, start the machine.

Part 2: Choose these options

2.1 Graphical Install, Keyboard Language=EN_GB, Hostname=debian, domain name leave blank, click next, root password=something you wont forget, name=your name, username=your first name, timezone=GMT/BST

2.2 Partitioning method choose - guided use entire disk, select disk=select the virtual disk, partitioning scheme=all files in one partition,finish changes and write to disk=yes, package manager=United Kingdom, mirror=ftp.uk.debian.org, http proxy=leave blank,

package usage survey=no, select and install software=Desktop Environment(Gnome) + SSH Server and Standard System Utilities, Install the GRUB bootloader to the MBR=yes, device for GRUB installation=virtual disk, reboot and log in.

Part 3: Install Apache2

3.1 Once logged into the machine, click on the activities menu and find the termi- nal, type su at the prompt, enter the root password. Install Apache. All terminal commands are shown in mono-spaced.

```
apt install apache2 –y
```

3.2 Once the installation is complete verify Apache is running, if this is Active then press q to quit the pager.

```
systemctl status apache2
```

3.3 Access the Default Page - find your ip address (or use 127.0.0.1), then open Firefox from within the virtual machine, and enter this into the address bar, if you see the default apache2 homepage then you have successfully installed Apache.

```
ip a
```

3.4 Additional Information

Once you have completed the installation and can see the default 'it works' page, congratulations, you have installed a Linux Server, a Web Server and are hosting a web page. Create a report of these steps and upload to the Moodle.

3.5 More information on Week 1 topics:

What is Debian https://www.debian.org/intro/about#what

The GNU Project https://www.gnu.org/gnu/gnu-history.html

Apache httpd https://httpd.apache.org/ABOUT_APACHE.html