

Vanier College
Unix 420-321-VA (Sect. 00004)

Final Project

Website Hosting

Due: 12th December 2021

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GitHub Repo:
<https://github.com/DHay10/UnixProject>

Description:

- The project is meant to show the process of setting up a virtual space to upload a website to a VPS hosting service using Unix knowledge. Originally, the plan was to be able to offer a step-by-step guide to be able to explain the process to a normal person wanting to upload their own website. But due to some reasons, we didn't put as much effort into this project to be able to attain the endpoint (Sorry).
- However, the project is to currently show our own applied knowledge on how to set up a basic website (Which doesn't include data collection).

Steps Made:

1. With the use of VM, we made and accessed our public and private SSH keys.
2. We bought a VPS cloud server (OVH Server) and set it up.
 - a. Updated all packages of the server.
 - b. Registered the IP address and the password to access root.
 - c. Made users for both teammates to be able to connect and administrate the webserver.
 - d. Installed Apache and PHP. (Omitted MySQL, as the project only demos the deployment of a simple website with no data collection)
3. We implemented our Web Project (Internet Programming) as an example of a website and made changes such as:
 - a. Make our home page an 'index.html' file instead of going into the apache file setting to direct to the home page address.
 - b. Assemble and structure using relational pathing interconnecting HTML files.
4. We uploaded our sample website to the `/var/www/html/` folder using FileZilla connected to the server.

Info:

- IP Address: 142.44.161.194
- Root User: dhay
- Root Password: 1234Aa

Team Contribution:

- We worked together at the same time using discord and screen sharing. We did each step together as the process is linear and couldn't necessarily be done by separating the workload.
- As we did the work on my computer(Andy), the commits on github were only made by my name.

Screenshots:

```
ubuntu@vps-bafd52a5: ~  
ubuntu@vps-bafd52a5:~$ sudo adduser atoushi  
Adding user `atoushi' ...  
Adding new group `atoushi' (1001) ...  
Adding new user `atoushi' (1001) with group `atoushi' ...  
Creating home directory `/home/atoushi' ...  
Copying files from `/etc/skel' ...  
New password:  
Retype new password:  
passwd: password updated successfully  
Changing the user information for atoushi  
Enter the new value, or press ENTER for the default  
  Full Name []: Ali Alnajjar  
  Room Number []:  
  Work Phone []:  
  Home Phone []:  
  Other []:  
Is the information correct? [Y/n] Y  
ubuntu@vps-bafd52a5:~$ sudo adduser dhay  
Adding user `dhay' ...  
Adding new group `dhay' (1002) ...  
Adding new user `dhay' (1002) with group `dhay' ...  
Creating home directory `/home/dhay' ...  
Copying files from `/etc/skel' ...  
New password:  
Retype new password:  
passwd: password updated successfully  
Changing the user information for dhay  
Enter the new value, or press ENTER for the default  
  Full Name []: Andy Nguyen-Chao  
  Room Number []:  
  Work Phone []:  
  Home Phone []:  
  Other []:  
Is the information correct? [Y/n] Y  
ubuntu@vps-bafd52a5:~$ S
```

```
dhay@DHay-VirtualBox: ~  
Sorry, try again.  
[sudo] password for dhay:  
Generating public/private rsa key pair.  
Enter file in which to save the key (/root/.ssh/id_rsa):  
Created directory '/root/.ssh'.  
Enter passphrase (empty for no passphrase):  
Enter same passphrase again:  
Your identification has been saved in /root/.ssh/id_rsa  
Your public key has been saved in /root/.ssh/id_rsa.pub  
The key fingerprint is:  
SHA256:4A+ndZuerQ7nr6r71e0FhxoSq9Q50rM/kExe+LwoJlQ root@DHay-VirtualBox  
The key's randomart image is:  
+---[RSA 4096]---+  
|  
| . . . |  
| .E.O..+ . |  
| .o+S=O + o . |  
| . B=+o@ + + |  
| . . *oo.* . o |  
| . o .+=+ . . . |  
| o .+=*o... . |  
+---[SHA256]-----+  
dhay@DHay-VirtualBox:~$ S
```

```
Dec 03 01:33:33 vps-bafd52a5 systemd[1]: Started The Apache HTTP Server.
dhay@vps-bafd52a5:~$ sudo mkdir /var/www/dhay
dhay@vps-bafd52a5:~$ sudo chown -R dhay:dhay /var/www/dhay
dhay@vps-bafd52a5:~$ sudo chmod -R 755 /var/www/dhay
dhay@vps-bafd52a5:~$ nano /var/www/dhay/index.html
dhay@vps-bafd52a5:~$ sudo nano /etc/apache2/sites-available/dhay.conf
dhay@vps-bafd52a5:~$ sudo a2ensite dhay.conf
Enabling site dhay.
To activate the new configuration, you need to run:
    systemctl reload apache2
dhay@vps-bafd52a5:~$ sudo a2dissite 000-default.conf
Site 000-default disabled.
To activate the new configuration, you need to run:
    systemctl reload apache2
dhay@vps-bafd52a5:~$ sudo apache2ctl configtest
AH00112: Warning: DocumentRoot [/var/www/your_domain] does not exist
Syntax OK
dhay@vps-bafd52a5:~$ sudo nano /etc/apache2/sites-available/dhay.conf
dhay@vps-bafd52a5:~$ sudo apache2ctl configtest
Syntax OK
dhay@vps-bafd52a5:~$ sudo systemctl restart apache2
dhay@vps-bafd52a5:~$ sudo apt-get update
Get:1 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Hit:2 http://nova.clouds.archive.ubuntu.com/ubuntu focal InRelease
Get:3 http://nova.clouds.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:4 http://nova.clouds.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Fetched 336 kB in 1s (451 kB/s)
Reading package lists... Done
dhay@vps-bafd52a5:~$ sudo apt-get install apache2 openssl
Reading package lists... Done
Building dependency tree
Reading state information... Done
apache2 is already the newest version (2.4.41-4ubuntu3.8).
openssl is already the newest version (1.1.1f-1ubuntu2.9).
openssl set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
```

```
dhay@vps-bafd52a5:/var/www$ sudo apt install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
apache2 is already the newest version (2.4.41-4ubuntu3.8).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
dhay@vps-bafd52a5:/var/www$ sudo ufw app list
Available applications:
  Apache
  Apache Full
  Apache Secure
  Nginx Full
  Nginx HTTP
  Nginx HTTPS
  OpenSSH
dhay@vps-bafd52a5:/var/www$ sudo ufw allow 'Apache'
Rule added
Rule added (v6)
dhay@vps-bafd52a5:/var/www$ sudo ufw status
Status: active

To Action From
--
Nginx HTTP ALLOW Anywhere
22/tcp ALLOW Anywhere
Apache ALLOW Anywhere
Nginx HTTP (v6) ALLOW Anywhere (v6)
22/tcp (v6) ALLOW Anywhere (v6)
Apache (v6) ALLOW Anywhere (v6)
```

Host: dhay@142.44.161.194 Username: dhay Password: ***** Port: Quickconnect

Status: Connecting to 142.44.161.194...
Status: Using username "dhay".
Status: Connected to 142.44.161.194.
Status: Retrieving directory listing...
Status: Listing directory /home/dhay.
Status: Directory listing of "/home/dhay" successful.

Local site: C:\Users\Andy\Documents\GitHub\UnixProject

Remote site: /home/dhay

Filename	Filesize	Filetype	Last modified
..		File folder	2021-12-12 10:15:3...
.git		File folder	2021-12-12 10:15:3...
projectFiles	454	MD File	2021-11-16 3:16:11...
README.md	636,483	Document Adobe...	2021-12-04 10:46:5...
Unix_Deliverable1.pdf			

2 files and 2 directories. Total size: 636,937 bytes

Filename	Filesize	Filetype	Last modified	Permissions	Owner/Group
..		File folder	2021-12-01 10:...	drwxr-xr-x	dhay dhay
.cache		File folder	2021-12-01 10:...	drwxr-xr-x	dhay dhay
.local		File folder	2021-12-01 10:...	drwxr-xr-x	dhay dhay
.ssh		File folder	2021-12-01 10:...	drwxr-xr-x	dhay dhay
public_html		File folder	2021-12-02 7:5...	drwxr-xr-x	dhay dhay
.bash_history	337	BASH_HIST...	2021-12-12 10:...	-rw-r--r--	dhay dhay
.bash_logout	220	BASH_LOG...	2021-12-01 10:...	-rw-r--r--	dhay dhay
.bashrc	2,771	BASHRC File	2021-12-01 10:...	-rw-r--r--	dhay dhay
.profile	807	PROFILE File	2021-12-01 10:...	-rw-r--r--	dhay dhay
.sudo_as_admin_succ...	0	SUDO_AS_...	2021-12-01 10:...	-rw-r--r--	dhay dhay

5 files and 4 directories. Total size: 5,135 bytes

Server/Local file Direction Remote file Size Priority Status

Queued files Failed transfers Successful transfers

Remote site: /var/www/dhay

log
mail
opt
run
snap
spool
tmp
www
dhay
html
public_html

Filename	Filesize	Filetype	Last modified	Permissions	Owner/Group
..					
images		File folder	2021-12-02 8:4...	drwxrwxr-x	dhay dhay
backToTopB.js	281	JavaScript ...	2021-12-02 8:4...	-rw-rw-r--	dhay dhay
bbc_about.html	6,018	Chrome H...	2021-12-02 8:4...	-rw-rw-r--	dhay dhay
bbc_aboutstyle.css	257	CSS File	2021-12-02 8:4...	-rw-rw-r--	dhay dhay
bbc_basestyle.css	1,905	CSS File	2021-12-02 8:4...	-rw-rw-r--	dhay dhay
bbc_coffee_beans.html	1,666	Chrome H...	2021-12-02 8:4...	-rw-rw-r--	dhay dhay
bbc_contact.html	2,434	Chrome H...	2021-12-02 8:4...	-rw-rw-r--	dhay dhay
bbc_homestyle.css	510	CSS File	2021-12-02 8:4...	-rw-rw-r--	dhay dhay
bbc_recipes.css	1,212	CSS File	2021-12-02 8:4...	-rw-rw-r--	dhay dhay
bbc_recipes.html	4,812	Chrome H...	2021-12-02 8:4...	-rw-rw-r--	dhay dhay
index.html	8,938	Chrome H...	2021-12-02 8:4...	-rw-rw-r--	dhay dhay

