Module 10 - Assignment

Problem Statement:

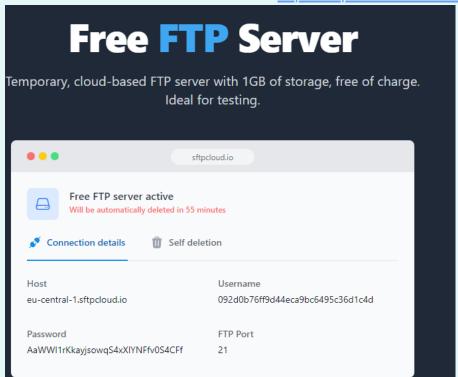
You work for xyz organization. Your job work is to manage Linux-based servers.

You have been asked to:

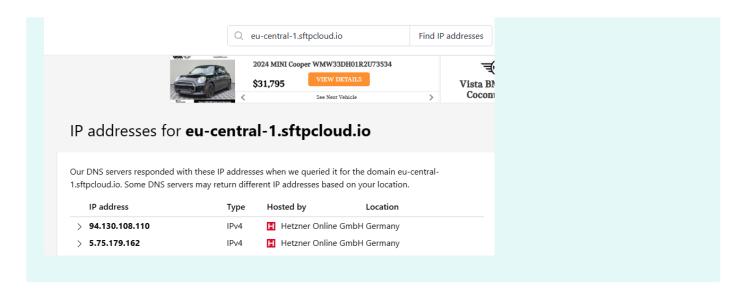
- 1. Add a website with its IP address in the /etc/hosts file
- 2. Ping it to check whether it is working fine
- 3. Connect to that server using ftp and transfer a file from your pc to that server
- 4. Install a web server and allow access to the port number of that server

එ FTP Portion

For this lab I created an FTP Server at https://sftpcloud.io/tools/free-ftp-server



Resolved the hostname eu-central-1.sftpcloud.io to IP at https://www.nsookup.io/



1. Mapping 5.75.179.162 to ftp_server

2. Pinging ftp_server

```
vagrant@ubuntu-bionic:~$ ping ftp_server
PING ftp_server (5.75.179.162) 56(84) bytes of data.
64 bytes from ftp_server (5.75.179.162): icmp_seq=1 ttl=45 time=148 ms
64 bytes from ftp_server (5.75.179.162): icmp_seq=2 ttl=45 time=147 ms
64 bytes from ftp_server (5.75.179.162): icmp_seq=3 ttl=45 time=147 ms
64 bytes from ftp_server (5.75.179.162): icmp_seq=4 ttl=45 time=148 ms
64 bytes from ftp_server (5.75.179.162): icmp_seq=5 ttl=45 time=147 ms
64 bytes from ftp_server (5.75.179.162): icmp_seq=6 ttl=45 time=147 ms
```

3. Using 5.75.179.162 I'll connect to the FTP server where I'll upload test file

Could have used ftp_server instead of IP to connect as well



```
vagrant@ubuntu-bionic:~$ ftp 5.75.179.162
Connected to 5.75.179.162.
220 SSH-2.0-SFTPCloud.io
Name (5.75.179.162:vagrant): 092d0b76ff9d44eca9bc6495c36d1c4d
331 OK
Password:
230 Password ok, continue
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> ls
501 Your request does not meet the configured security requirements
ftp: bind: Address already in use
ftp> passive
Passive mode on.
ftp> ls
227 Entering Passive Mode (5,75,179,162,195,135)
150 Using transfer connection
226 Closing transfer connection
ftp> put test
local: test remote: test
227 Entering Passive Mode (5,75,179,162,195,152)
150 Using transfer connection
226 Closing transfer connection
ftp> ls
227 Entering Passive Mode (5,75,179,162,195,90)
150 Using transfer connection
                                 0 Aug 22 01:53 test
-rw-r--r-- 1 ftp ftp
226 Closing transfer connection
```

4. Install a web server and allow access to the port number of that server

In terminal I run:

```
sudo apt update -y #update packages
sudo apt install apache2 -y #install web server apache
```

Checking web server is up:

```
sudo systemctl status apache2
```

```
hector@hectorsVirtualBox:~$ sudo systemctl status apache2

apache2.service - The Apache HTTP Server
Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor prese Active: active (running) since Tue 2023-08-22 21:56:02 EDT; 20s ago
Docs: https://httpd.apache.org/docs/2.4/
Main PID: 4197 (apache2)
Tasks: 55 (limit: 6932)
Memory: 5.8M
CGroup: /system.slice/apache2.service
-4197 /usr/sbin/apache2 -k start
-4198 /usr/sbin/apache2 -k start
-4199 /usr/sbin/apache2 -k start
```

Getting server IP:

```
hector@hectorsVirtualBox:~$ ip addr
1: lo: <L00PBACK,UP,L0WER_UP> mtu 65
    link/loopback 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_l
    inet6 ::1/128 scope host
       valid_lft forever preferred_l
2: enp0s3: <BROADCAST,MULTICAST,UP,L
    link/ether 08:00:27:92:52:c9 brd
    inet 192.168.1.111/24 ord 192.16
       valid_lft 86170sec preferred_
```

Enabling firewall

sudo ufw enable

```
hector@hectorsVirtualBox:~$ sudo ufw enable
Firewall is active and enabled on system startup
```

If I check in browser page does not appear



Hmmm... can't reach this page

192.168.1.111 took too long to respond

Try:

- · Running network diagnostics with Get Help
- · Search the web for 192 168 1 111
- · Checking the connection
- · Checking the proxy and the firewall

ERR_CONNECTION_TIMED_OUT

Opening the necessary ports:

```
sudo ufw allow 80,443/tcp
```

```
hector@hectorsVirtualBox:~$ sudo ufw allow 80,443/tcp
Rule added
Rule added (v6)
```

When I check again page appears:



This is the default welcome page used to test the correct operation of the Apache2 server a installation on Ubuntu systems. It is based on the equivalent page on Debian, from which t