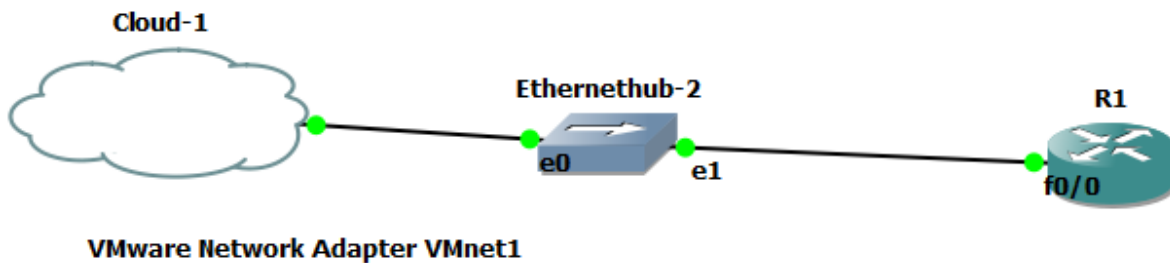# Python

Python is an important scripting language required to be known for everyone who deals with networking. I have written a python code to obtain information regarding the router. The basic "show config" command was executed and the output was stored in a file specified in the code. The configuration is as follows:

The cloud is connected to my internal computer interface through an ethernet (vmware adapter). The Ethernet hub is connected in turn to the router.

The code for the program is as following:

```python
import paramiko
import time
import sys

def call_funct(ip):
    time1 = 3
    time.sleep(time1)
    connec=paramiko.SSHClient()
    connec.connect(ip)
    connec.write('configure terminal' + '\n')
    time.sleep(time1)
    connec.write('int f0/1')
    time.sleep(time1)
    connec.write('no shut')
    time.sleep(time1)
    connec.write('end')
    time.sleep(time1)
    sys.stdout = open("test.txt", "w")
    output=connec.write('show configu')
    time.sleep(time1)
    sys.stdout.close()
    connec.close()

call_funct("192.168.5.2.)
```
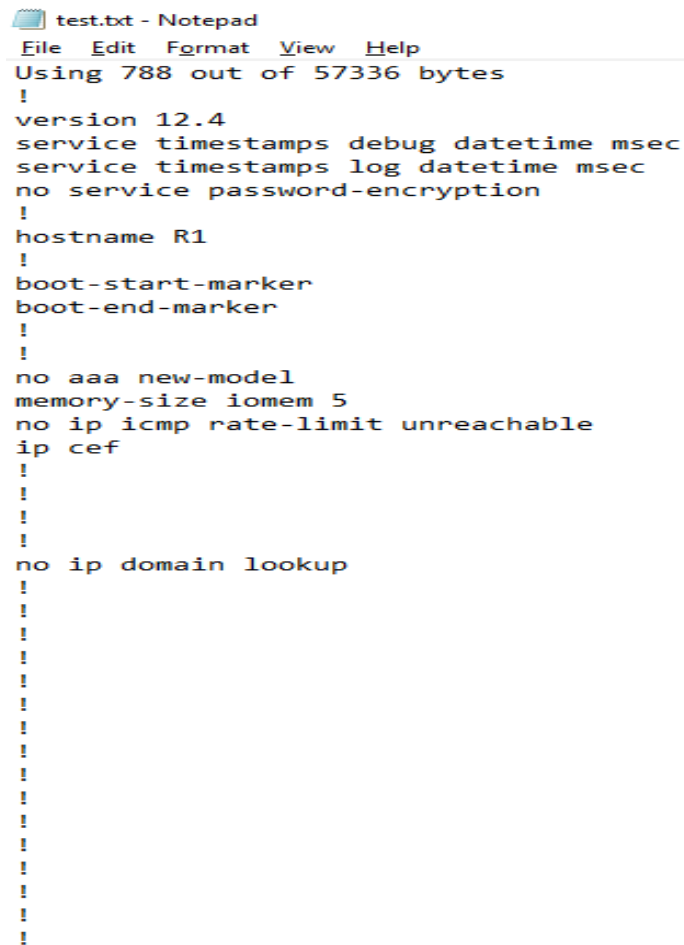
The ip address mentioned is the address of the router which can be reached using the cloud(our end)

The configuration was done using a Pycharm environment.

The output over here is stored as a text file called test.txt. We first open the test.txt file and then run the **"show config"** command to get its configuration.

One of the major problem faced with this configuration the socket configuration. I had to add an exception for this socket to get connected.

Here is the sample output:

```
test.txt - Notepad
File   Edit   Format   View   Help
Using 788 out of 57336 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R1
!
boot-start-marker
boot-end-marker
!
!
no aaa new-model
memory-size iomem 5
no ip icmp rate-limit unreachable
ip cef
!
!
!
!
no ip domain lookup
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
```

```
!
ip tcp synwait-time 5
!
!
!
interface FastEthernet0/0
 ip address 192.168.5.2 255.255.255.0
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 duplex auto
 speed auto
!
!
!
no ip http server
no ip http secure-server
!
no cdp log mismatch duplex
!
!
!
control-plane
!
!
!
!
!
!
!
!
line con 0
 exec-timeout 0 0
 privilege level 15
 logging synchronous
```

```
interface FastEthernet0/1
 no ip address
 duplex auto
 speed auto
!
!
!
no ip http server
no ip http secure-server
!
no cdp log mismatch duplex
!
!
!
control-plane
!
!
!
!
!
!
!
!
!
line con 0
 exec-timeout 0 0
 privilege level 15
 logging synchronous
line aux 0
 exec-timeout 0 0
 privilege level 15
 logging synchronous
line vty 0 4
 login
!
!
end
```