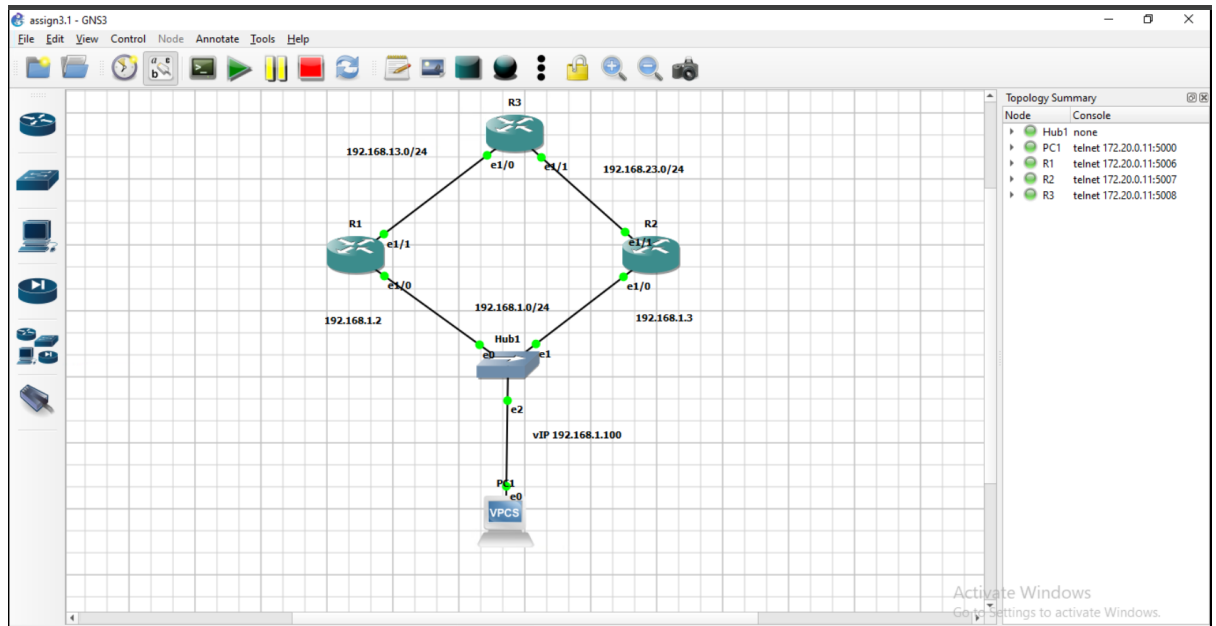


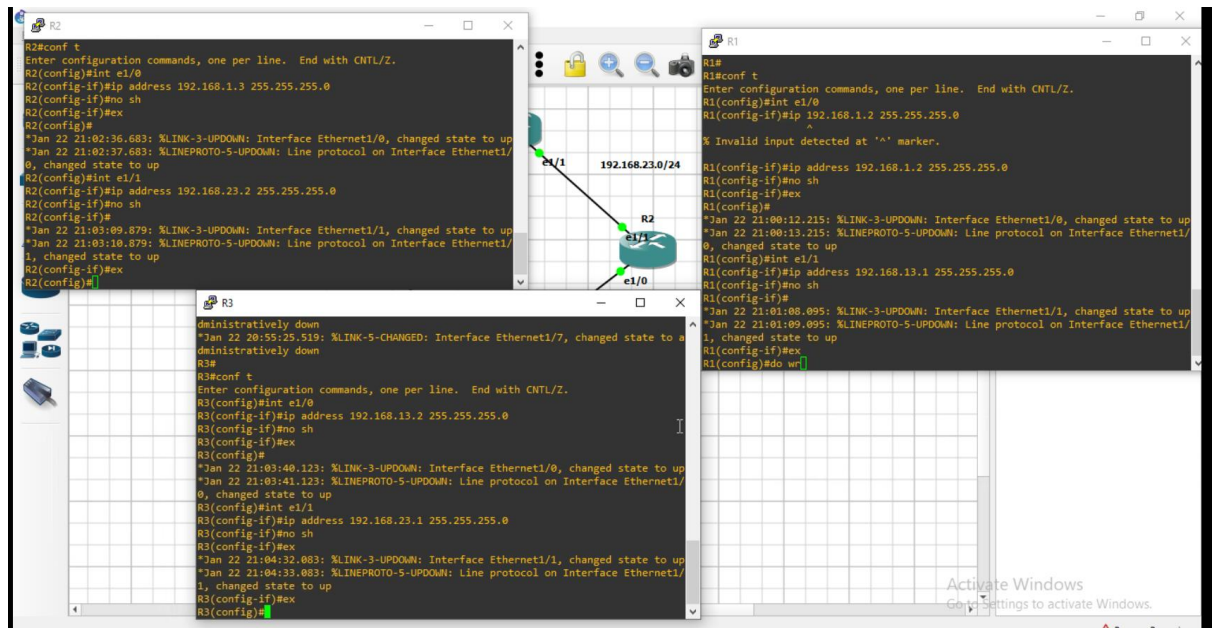
## DATACOM DAY 3

### 1. HSRP

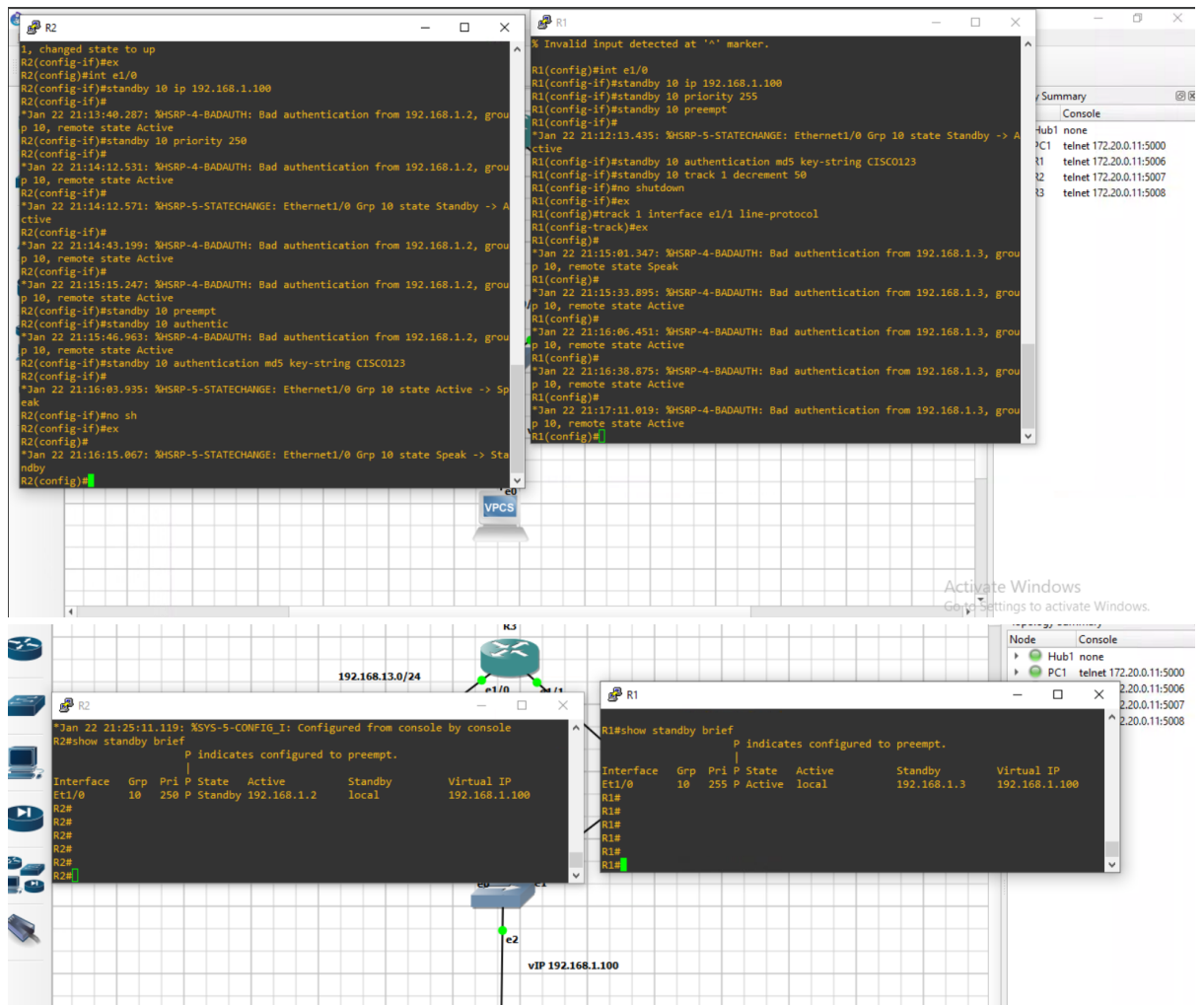
#### Topology



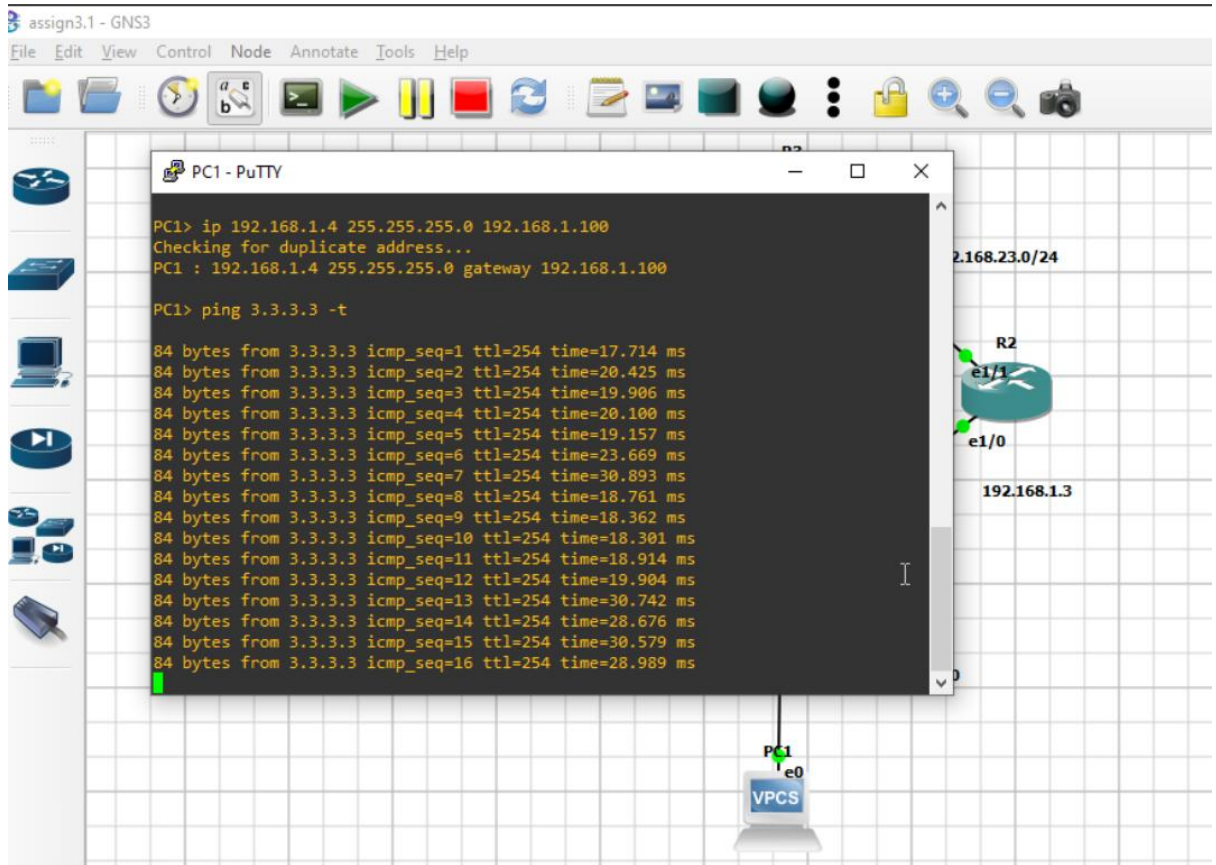
#### Router ipv4 configuration



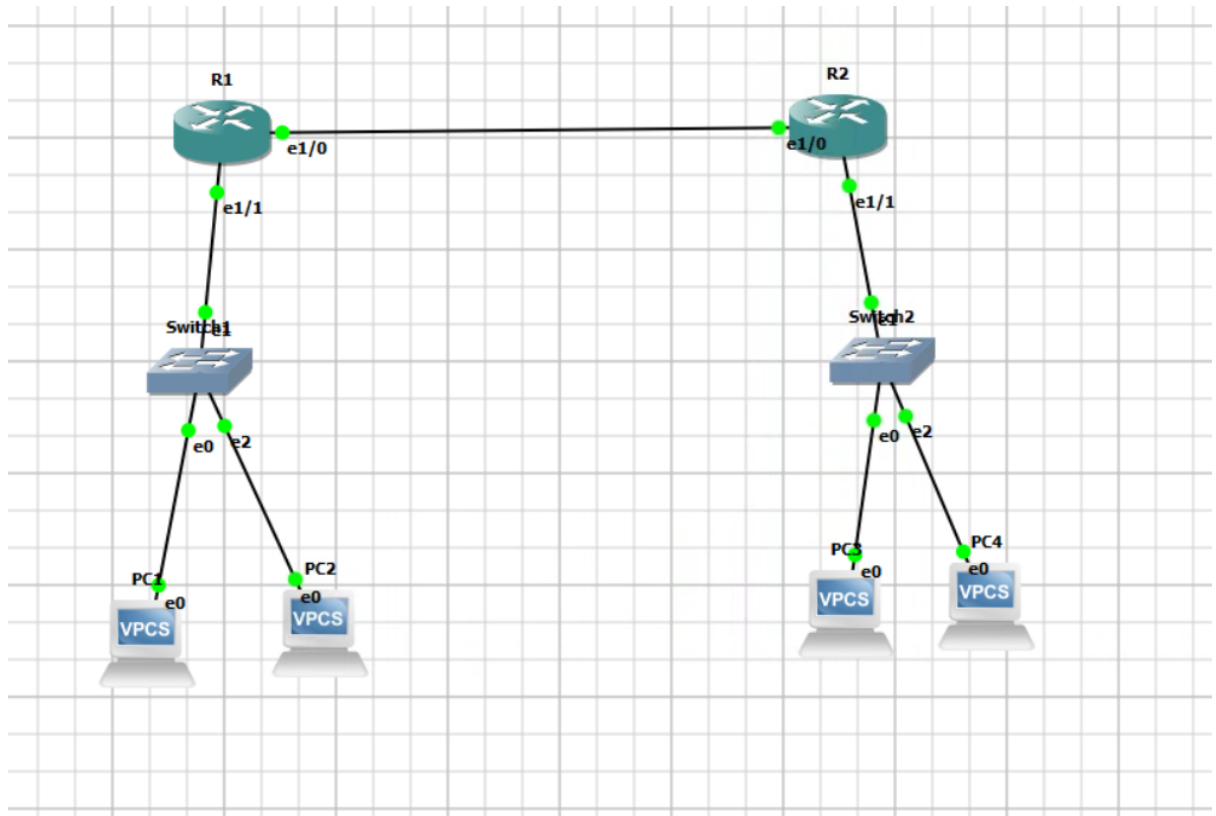
#### HSRP CONFIGURATION



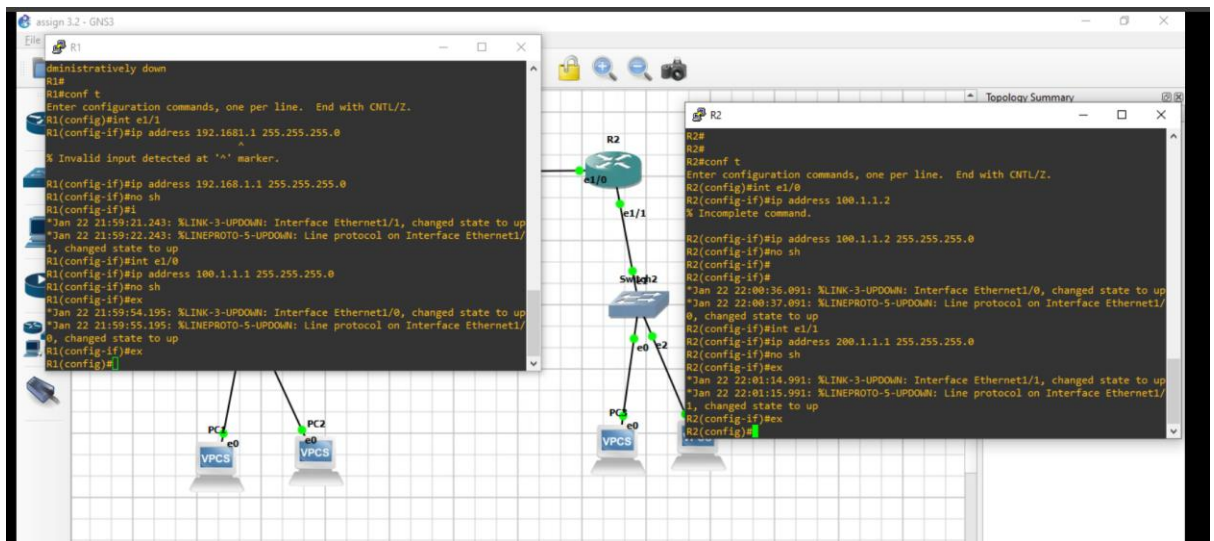
VPC1



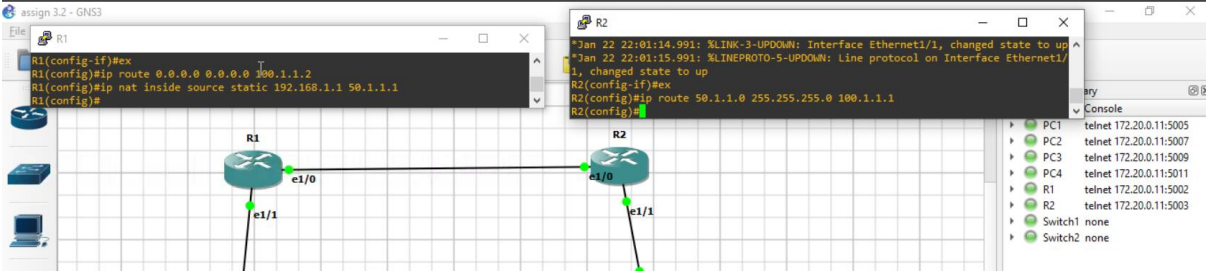
## 2. Static NAT TOPOLOGY



## Router ipv4 configuration



## CONFIGURE ROUTING



The diagram shows a network topology with two routers, R1 and R2, connected via their e1/0 interfaces. R1 is connected to a PC1 and a PC2. R2 is connected to a PC3 and a PC4. The diagram also shows a console window for R1 with configuration commands and a console window for R2 with configuration commands.

```
R1
R1(config-if)#ex
R1(config)#ip route 0.0.0.0 0.0.0.0 100.1.1.2
R1(config)#ip nat inside source static 192.168.1.1 50.1.1.1
R1(config)#

R2
*Jan 22 22:01:14.991: %LINK-3-UPDOWN: Interface Ethernet1/1, changed state to up
*Jan 22 22:01:15.991: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/1, changed state to up
R2(config-if)#ex
R2(config)#ip route 50.1.1.0 255.255.255.0 100.1.1.1
R2(config)#
```

Console

- PC1 telnet 172.20.0.11:5005
- PC2 telnet 172.20.0.11:5007
- PC3 telnet 172.20.0.11:5009
- PC4 telnet 172.20.0.11:5011
- R1 telnet 172.20.0.11:5002
- R2 telnet 172.20.0.11:5003
- Switch1 none
- Switch2 none

```
R1
R1(config)#int e1/0
R1(config-if)#ip net outside
^
% Invalid input detected at '^' marker.

R1(config-if)#ip nat outside
R1(config-if)#
R1(config-if)#ex
R1(config)#int e1/1
R1(config-if)#ip nat inside
R1(config-if)#sh ip
^
% Invalid input detected at '^' marker.

R1(config-if)#do sh ip
sh ip
% Incomplete command.

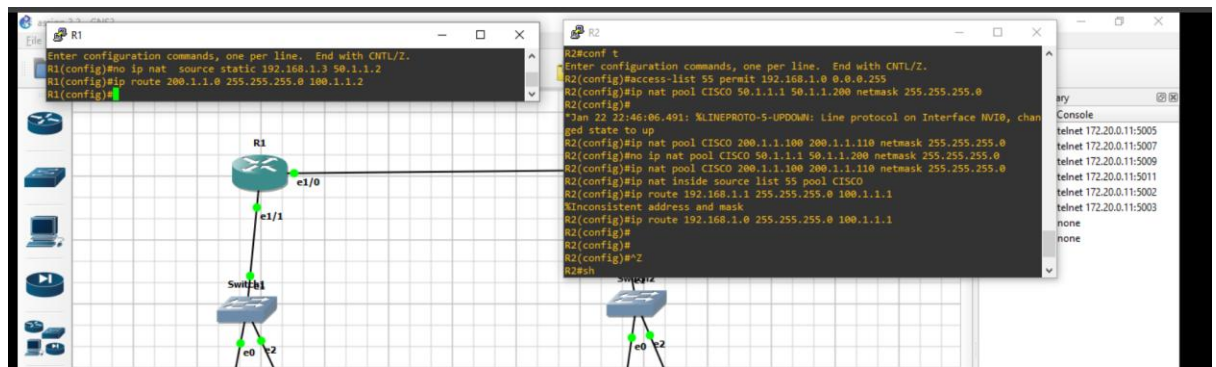
R1(config-if)#do sh ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route

Gateway of last resort is 100.1.1.2 to network 0.0.0.0

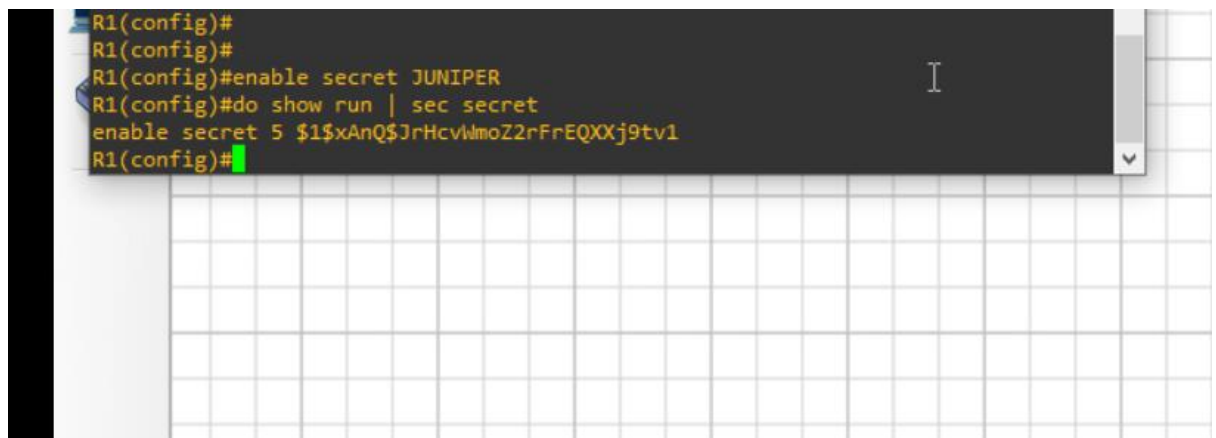
    100.0.0.0/24 is subnetted, 1 subnets
C       100.1.1.0 is directly connected, Ethernet1/0
C    192.168.1.0/24 is directly connected, Ethernet1/1
S*    0.0.0.0/0 [1/0] via 100.1.1.2
R1(config-if)#^Z
R1#
*Jan 22 22:24:41.671: %SYS-5-CONFIG_I: Configured from console by console
R1#ping 200.1.1.100

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 200.1.1.100, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)
R1#
```

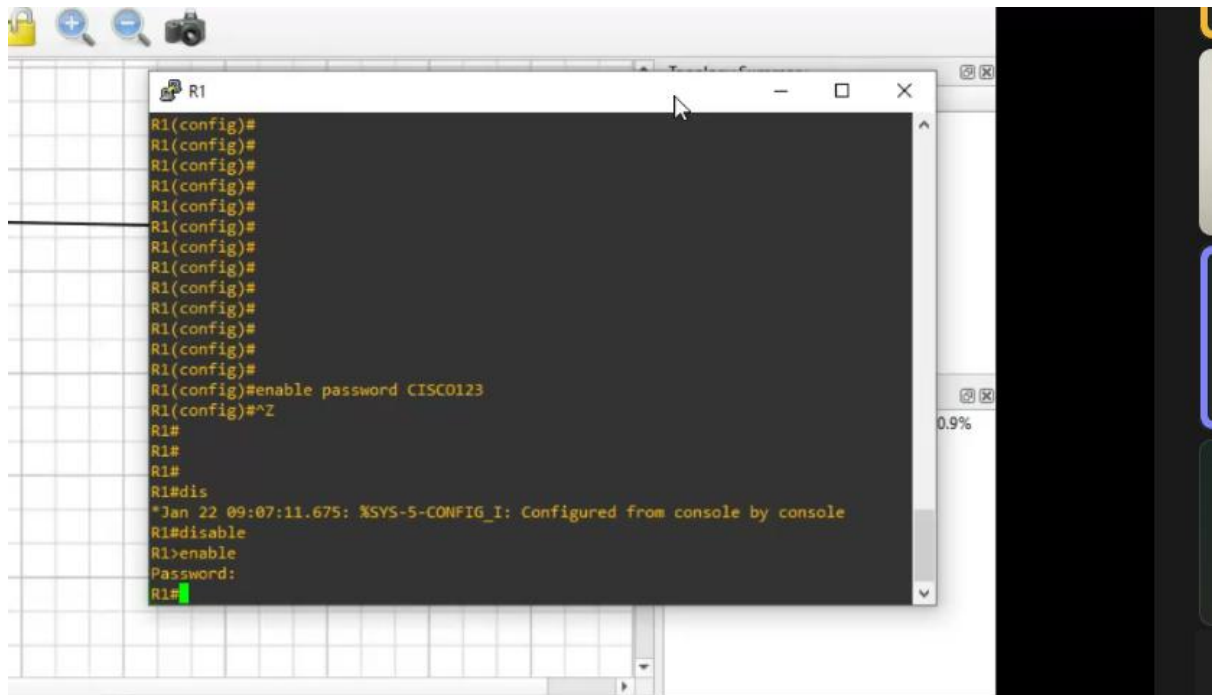
### 3. Dynamic NAT



### 4. Enable secret



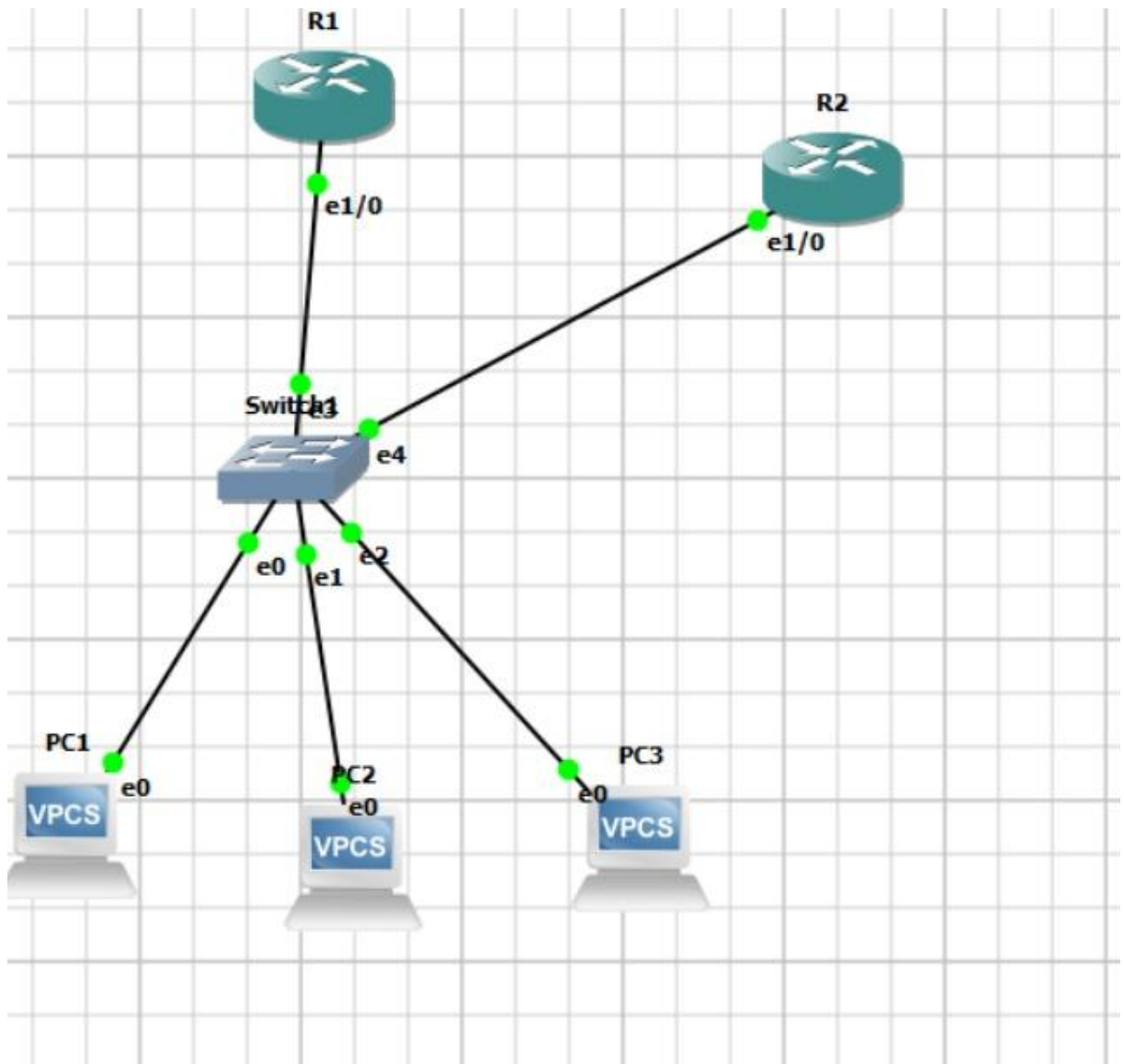
## 5. Enable password



```
R1
R1(config)#
R1(config)#
R1(config)#
R1(config)#
R1(config)#
R1(config)#
R1(config)#
R1(config)#
R1(config)#
R1(config)#
R1(config)#
R1(config)#enable password CISCO123
R1(config)#^Z
R1#
R1#
R1#
R1#dis
*Jan 22 09:07:11.675: %SYS-5-CONFIG_I: Configured from console by console
R1#disable
R1>enable
Password:
R1#
```

## 6. DHCP

Topology



```
R1#
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#int e1/0
R1(config-if)#ip address 192.168.1.1
% Incomplete command.
R1(config-if)#ip address 192.168.1.1 255.255.255.0
R1(config-if)#no sh
```

```

R1(dhcp-config)#ip dhcp pool wipro
R1(dhcp-config)#network
% Incomplete command.

R1(dhcp-config)#network 192.168.1.0 255.255.255.0
R1(dhcp-config)#default
R1(dhcp-config)#default
R1(dhcp-config)#default-router 192.168.1.1
R1(dhcp-config)#dns
R1(dhcp-config)#dns-server 192.168.1.2
R1(dhcp-config)#?
DHCP pool configuration commands:
  accounting      Send Accounting Start/Stop messages
  bootfile        Boot file name
  class           Specify a DHCP class
  client-identifier Client identifier
  client-name      Client name
  default-router   Default routers
  dns-server       DNS servers
  domain-name      Domain name

```

```

R1(config)#ip dhcp excluded-address 192.168.1.1 192.168.1.2

```

```

R2#
R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#int e1/0
R2(config-if)#ip address dhcp
R2(config-if)#no sh
R2(config-if)#
*Jan 22 05:19:33.203: %LINK-3-UPDOWN: Interface Ethernet1/0, changed state to up
*Jan 22 05:19:34.203: %LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/0, changed state to up
R2(config-if)#
*Jan 22 05:19:43.731: %DHCP-6-ADDRESS_ASSIGN: Interface Ethernet1/0 assigned DHCP address 192.168.1.4, mask 255.255.255.0, hostname R2

R2(config-if)#^Z
R2#
*Jan 22 05:19:56.827: %SYS-5-CONFIG_I: Configured from console by console
R2#show ip int bri

```

Interface	IP-Address	OK?	Method	Status	Prot
FastEthernet0/0	unassigned	YES	unset	administratively down	down
Ethernet1/0	192.168.1.4	YES	DHCP	up	up
Ethernet1/1	unassigned	YES	unset	administratively down	down
Ethernet1/2	unassigned	YES	unset	administratively down	down
Ethernet1/3	unassigned	YES	unset	administratively down	down
Ethernet1/4	unassigned	YES	unset	administratively down	down
Ethernet1/5	unassigned	YES	unset	administratively down	down
Ethernet1/6	unassigned	YES	unset	administratively down	down
Ethernet1/7	unassigned	YES	unset	administratively down	down

```

R2#

```