ИНТЕРПРЕТАЦИЯ ТАБЛИЦЫ МАРШРУТИЗАЦИИ

Воссоздать модель сети на основе вывода команды show ip route (Routing_Table_Interpretation_Lab.pdf). Сопоставить адреса с соответствующими интерфейсами; настроить маршрутизаторы и проверить подключения. После завершения, результаты вывода команды show ip route должны быть в точности такими же, как исходные.

Configure an IPv4 Loopback Interface

R1# configure terminal
R1(config)# interface loopback 0
R1(config-if)# ip address 10.0.0.17 255.255.255.0

Инструкция

1) Выбираем 3 роутера 1841
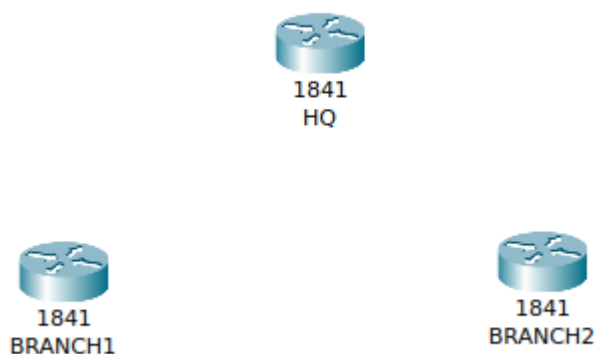
2) Выбираем модуль HWIC-2T и добавляем в каждый из роутеров.

Physical   Config   CLI   Attributes

Physical Device View

| Zoom In | Original Size | Zoom Out |

MODULES
HWIC-1GE-SFP
HWIC-2T
HWIC-4ESW
HWIC-8A
HWIC-AP-AG-B
WIC-1AM
WIC-1ENET
WIC-1T
WIC-2AM
WIC-2T
WIC-Cover
GLC-LH-SMD

Customize
Icon in
Physical View

Customize
Icon in
Logical View

The HWIC-2T is a Cisco 2-Port Serial High-Speed WAN Interface Card, providing 2 serial ports.
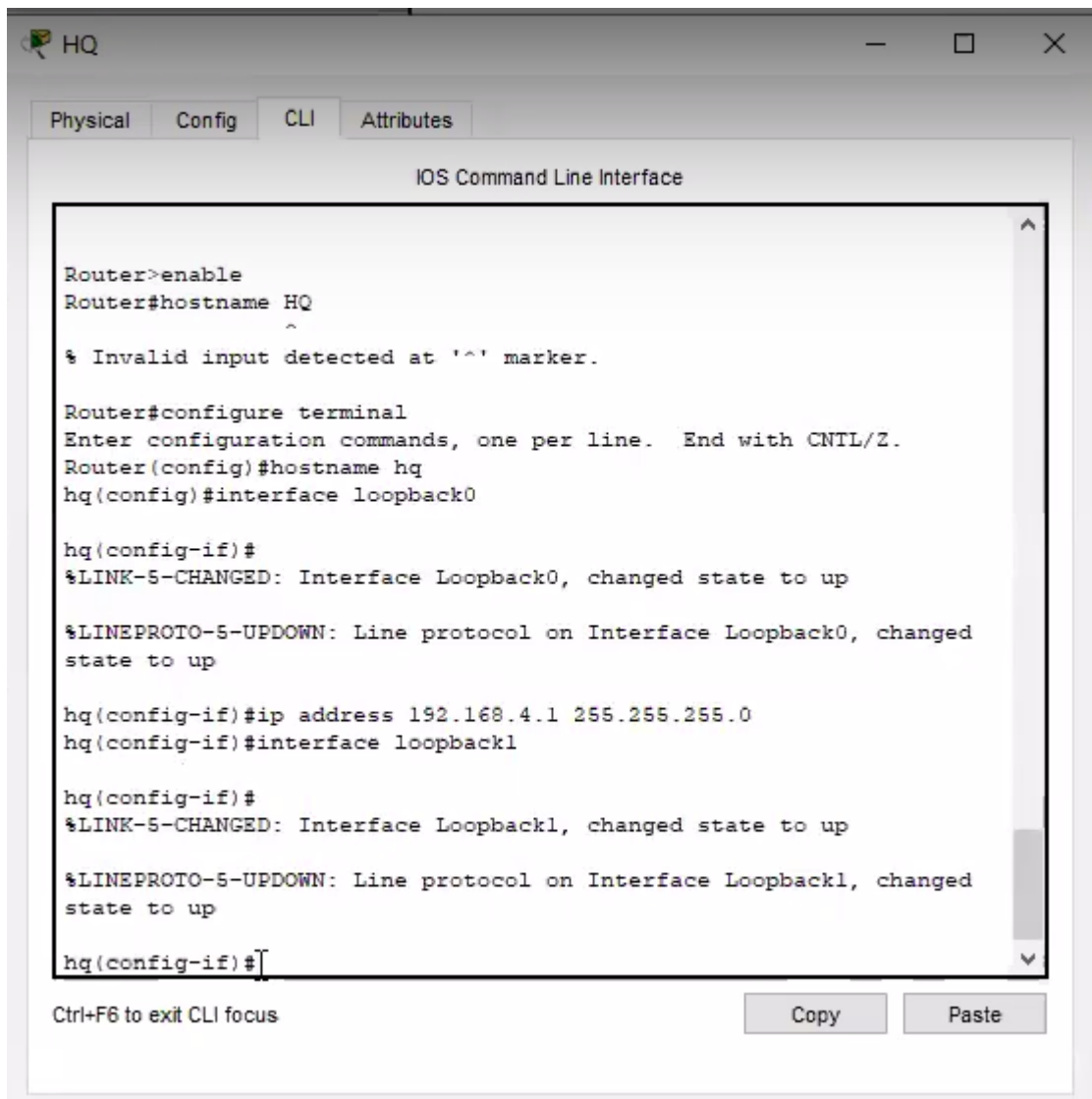
3)

```
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#host
Router(config)#hostname hq
hq(config)#Interface loopback0

hq(config-if)#
%LINK-5-CHANGED: Interface Loopback0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed state to up

hq(config-if)#ip address 192.168.4.1 255.255.255.0
hq(config-if)#Interface loopback1

hq(config-if)#
%LINK-5-CHANGED: Interface Loopback1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1, changed state to up

4)  hq(config-if)#
```

моё

```
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname hq
hq(config)#interface loopback0

hq(config-if)#
%LINK-5-CHANGED: Interface Loopback0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed
state to up

hq(config-if)#ip address 192.168.4.1 255.255.255.0
hq(config-if)#interface loopback1

hq(config-if)#
%LINK-5-CHANGED: Interface Loopback1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1, changed
state to up

hq(config-if)#ip address 192.168.5.1 255.255.255
                                              ^
% Invalid input detected at '^' marker.

hq(config-if)#ip address 192.168.5.1 255.255.255.0
hq(config-if)#
```

Ctrl+F6 to exit CLI focus   [Copy]   [Paste]

5)

```
hq>
hq>en
hq#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
hq(config)#Interface Loo
hq(config)#Interface Loopback1
hq(config-if)#ip address 192.168.5.1 255.255.255.0
hq(config-if)#Interface Loopback2

hq(config-if)#
%LINK-5-CHANGED: Interface Loopback2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback2, changed state to up

hq(config-if)#ip address 192.168.6.1 255.255.255.0
hq(config-if)#
```

6)

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7)

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1, changed
state to up

hq(config-if)#ip address 192.168.5.1 255.255.255
                                      ^
% Invalid input detected at '^' marker.

hq(config-if)#ip address 192.168.5.1 255.255.255.0
hq(config-if)#interface loopback2

hq(config-if)#
%LINK-5-CHANGED: Interface Loopback2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback2, changed
state to up

hq(config-if)#ip address 192.168.6.1 255.255.255.0
hq(config-if)#interface Serial0/0/0
hq(config-if)#ip address 10.10.10.254
% Incomplete command.
hq(config-if)#ip address 10.10.10.254 255.255.255.0
hq(config-if)#no ip address 10.10.10.254 255.255.255.0
hq(config-if)#ip address 10.10.10.254 255.255.255.252
hq(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
hq(config-if)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

8)

```
hq(config-if)#
%LINK-5-CHANGED: Interface Loopback2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback2, changed
state to up

hq(config-if)#ip address 192.168.6.1 255.255.255.0
hq(config-if)#interface Serial0/0/0
hq(config-if)#ip address 10.10.10.254
% Incomplete command.
hq(config-if)#ip address 10.10.10.254 255.255.255.0
hq(config-if)#no ip address 10.10.10.254 255.255.255.0
hq(config-if)#ip address 10.10.10.254 255.255.255.252
hq(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
hq(config-if)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

9)

```
hq(config)#interface Serial0/0/0
hq(config-if)#ip address 10.10.10.254 255.255.255.252
hq(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
hq(config-if)#
```

mine

```
hq(config-if)#interface Serial0/0/1
hq(config-if)#ip address 172.16.100.2 255.255.255.252
hq(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/1, changed state to down
```

10)
```
hq(config-if)#
```

```
hq#show ip route
Codes: C - connected, S - static, I - IGRP, 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, E -
EGP
       i - IS-IS, 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 not set

C    192.168.4.0/24 is directly connected, Loopback0
C    192.168.5.0/24 is directly connected, Loopback1
C    192.168.6.0/24 is directly connected, Loopback2

hq#
```

11)
```
hq(config)#router rip
hq(config-router)#version 2
hq(config-router)#network 192.168.4.0 ?
  <cr>
hq(config-router)#network 192.168.4.0
hq(config-router)#network 192.168.5.0
hq(config-router)#network 192.168.6.0
hq(config-router)#network 10.10.10.252
hq(config-router)#network 172.16.100.0
hq(config-router)#end
hq#
%SYS-5-CONFIG_I: Configured from console by console
```

12)

пропустила малёк
```
HQ(config-router)#network 192.168.4.0
HQ(config-router)#network 192.168.5.0
HQ(config-router)#network 192.168.6.0
HQ(config-router)#network 10.10.10.252
HQ(config-router)#network 172.16.100.0
```

13) BRANCH1

```
Router>ENABLE
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname BRANCH1
BRANCH1(config)#interface loopback0

BRANCH1(config-if)#
%LINK-5-CHANGED: Interface Loopback0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed
state to up

BRANCH1(config-if)#ip address 192.168.1.0 255.255.255.0
Bad mask /24 for address 192.168.1.0
BRANCH1(config-if)#ip address 192.168.1.1 255.255.255.0
BRANCH1(config-if)#ip address 192.168.1.1 255.255.255.0
BRANCH1(config-if)#interface loopback1

BRANCH1(config-if)#
%LINK-5-CHANGED: Interface Loopback1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1, changed
state to up

%LINK-5-CHANGED: Interface Loopback1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1, changed
state to up

BRANCH1(config-if)#ip address 192.168.2.1 255.255.255.0
BRANCH1(config-if)#interface loopback2

BRANCH1(config-if)#
%LINK-5-CHANGED: Interface Loopback2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback2, changed
state to up

BRANCH1(config-if)#ip address 192.168.3.1 255.255.255.0
```

сие моё

```
BRANCH1(config-if)#
%LINK-5-CHANGED: Interface Loopback0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0,
changed state to up

BRANCH1(config-if)#ip address 192.168.1.1 255.255.255.0
BRANCH1(config-if)#Interface Loopback1

BRANCH1(config-if)#
%LINK-5-CHANGED: Interface Loopback1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1,
changed state to up

BRANCH1(config-if)#ip address 192.168.2.1 255.255.255.0
BRANCH1(config-if)#interface loopback2

BRANCH1(config-if)#
%LINK-5-CHANGED: Interface Loopback2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback2,
changed state to up

BRANCH1(config-if)#ip address 192.168.3.1 255.255.255.0
BRANCH1(config-if)#
```

14) щас

```
IOS Command Line Interface

%LINK-5-CHANGED: Interface Loopback1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1, changed
state to up

BRANCH1(config-if)#ip address 192.168.2.1 255.255.255.0
BRANCH1(config-if)#interface loopback2

BRANCH1(config-if)#
%LINK-5-CHANGED: Interface Loopback2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback2, changed
state to up

BRANCH1(config-if)#ip address 192.168.3.1 255.255.255.0
BRANCH1(config-if)#interface Serial0/0/0
BRANCH1(config-if)#ip address 10.10.10.253 255.255.252.0
BRANCH1(config-if)#no ip address 10.10.10.253 255.255.252.0
BRANCH1(config-if)#ip address 10.10.10.253 255.255.255.252
BRANCH1(config-if)#clock rate 64000
BRANCH1(config-if)#noshut
                        ^
% Invalid input detected at '^' marker.

BRANCH1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
BRANCH1(config-if)#
```

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15) clown

```
BRANCH1(config-if)#interface Serial0/0/0
BRANCH1(config-if)#ip address 10.10.10.253 255.255.252.0
BRANCH1(config-if)#no ip address 10.10.10.253 255.255.252.0
BRANCH1(config-if)#ip address 10.10.10.253 255.255.255.252
BRANCH1(config-if)#clock rate 64000
BRANCH1(config-if)#noshut
                        ^
% Invalid input detected at '^' marker.

BRANCH1(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
BRANCH1(config-if)#
```
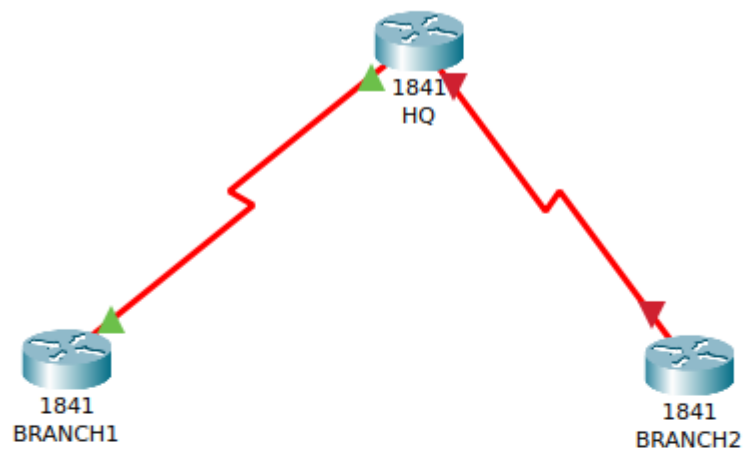
моё

```
BRANCH1(config)#Interface Serial0/0/0
BRANCH1(config-if)#ip address 10.10.10.253 255.255.255.252
BRANCH1(config-if)#clock rate 64000
BRANCH1(config-if)#no shut

%LINK-5-CHANGED: Interface Serial0/0/0, changed state to down
```

16) Serial DCE

```
BRANCH1(config-if)#do show cdp neighbor
Capability Codes: R - Router, T - Trans Bridge, B - Source Route
Bridge
                 S - Switch, H - Host, I - IGMP, r - Repeater, P -
Phone
Device ID    Local Intrfce    Holdtme    Capability    Platform
Port ID
hq           Ser 0/0/0        135                R      C1841       Ser
0/0/0
BRANCH1(config-if)#end
BRANCH1#
%SYS-5-CONFIG_I: Configured from console by console
```

17)

```
BRANCH1(config-if)#do show cdp neighbour
show cdp neighbour
                   ^
% Invalid input detected at '^' marker.

BRANCH1(config-if)#do show cdp neighbor
Capability Codes: R - Router, T - Trans Bridge, B - Source Route
Bridge
                  S - Switch, H - Host, I - IGMP, r - Repeater, P
- Phone
Device ID      Local Intrfce   Holdtme     Capability   Platform
Port ID
HQ             Ser 0/0/0          173          R        C1841
```
18) Ser 0/0/0

```
BRANCH1(config)#router rip
BRANCH1(config-router)#version 2
BRANCH1(config-router)#network 192.168.1.0
BRANCH1(config-router)#network 192.168.2.0
BRANCH1(config-router)#netowrk 192.168.3.0
                               ^
% Invalid input detected at '^' marker.

BRANCH1(config-router)#network 192.168.3.0
BRANCH1(config-router)#end
```
19)

моё

```
Enter configuration commands, one per line.  End with CNTL/Z.
BRANCH1(config)#router rip
BRANCH1(config-router)#version 2
BRANCH1(config-router)#network 192.168.1.0
BRANCH1(config-router)#network 192.168.2.0
BRANCH1(config-router)#network 192.168.3.0
BRANCH1(config-router)#end
BRANCH1#
```

```
BRANCH1(config)#router rip
BRANCH1(config-router)#network 10.10.10.252
BRANCH1(config-router)#
BRANCH1(config-router)#end
```
20) BRANCH1#

my

```
BRANCH1(config)#router rip
BRANCH1(config-router)#network 10.10.10.252
BRANCH1(config-router)#end
BRANCH1#
%SYS-5-CONFIG_I: Configured from console by console
```

```
BRANCH2(config-if)#
%LINK-5-CHANGED: Interface Loopback0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0, changed
state to up

BRANCH2(config-if)#ip address 192.168.7.1 255.255.255.0
BRANCH2(config-if)#interface loopback8

BRANCH2(config-if)#
%LINK-5-CHANGED: Interface Loopback8, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback8, changed
state to up

BRANCH2(config-if)#ip address 192.168.8.1 255.255.255.0
BRANCH2(config-if)#interface loopback9

BRANCH2(config-if)#
%LINK-5-CHANGED: Interface Loopback9, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback9, changed
state to up

BRANCH2(config-if)#ip address 192.168.9.1 255.255.255.0
BRANCH2(config-if)#
```

21)

myyy

```
Router(config-if)#
%LINK-5-CHANGED: Interface Loopback0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0,
changed state to up

Router(config-if)#ip address 192.168.7.1 255.255.255.0
Router(config-if)#Interface Loopback1

Router(config-if)#
%LINK-5-CHANGED: Interface Loopback1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback1,
changed state to up

Router(config-if)#ip address 192.168.8.1 255.255.255.0
Router(config-if)#Interface Loopback2

Router(config-if)#
%LINK-5-CHANGED: Interface Loopback2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback2,
changed state to up

Router(config-if)#ip address 102.168.9.1 255.255.255.0
Router(config-if)#
```

22)

```
BRANCH2(config-if)#ip address 192.168.9.1 255.255.255.0
BRANCH2(config-if)#interface serial0/0/1
BRANCH2(config-if)#ip address 172.16.100.1 255.255.255.252
BRANCH2(config-if)#clock rate 64000
BRANCH2(config-if)#no shutdown
```

myy

```
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface serial0/0/1
Router(config-if)#ip address 172.16.100.1 255.255.255.255
Bad mask /32 for address 172.16.100.1
Router(config-if)#ip address 172.16.100.1 255.255.255.252
Router(config-if)#clock rate 64000
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface Serial0/0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/1,
changed state to up
```
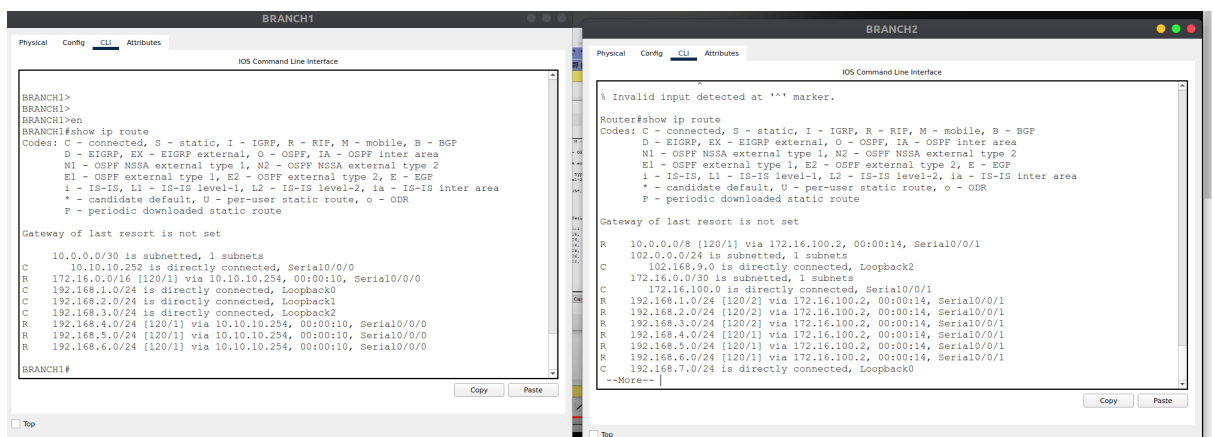
23)

```
BRANCH2(config-if)#router rip
BRANCH2(config-router)#version 2
BRANCH2(config-router)#network 172.16.100.0
BRANCH2(config-router)#end
BRANCH2#
%SYS-5-CONFIG_I: Configured from console by console
```

24)

25)

```
BRANCH2#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
BRANCH2(config)#router rip
BRANCH2(config-router)#version 2
BRANCH2(config-router)#network 192.168.7.0
BRANCH2(config-router)#
```