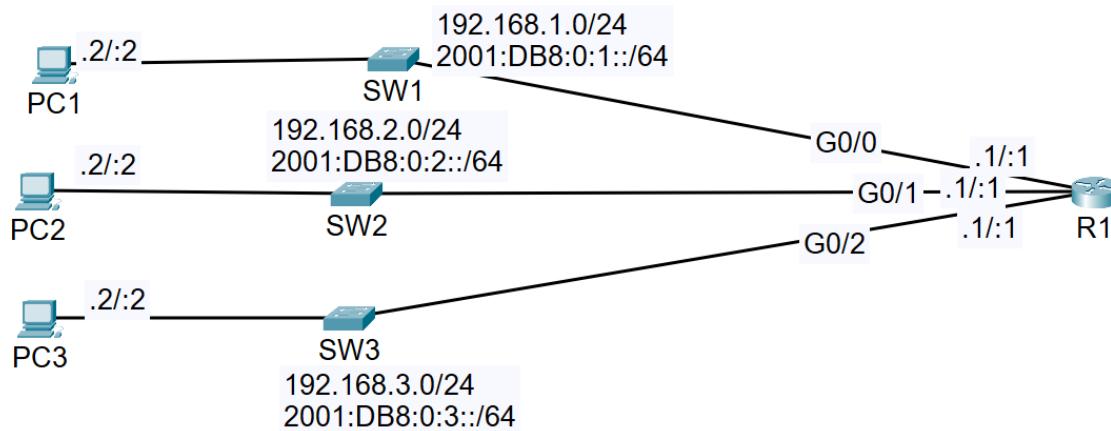


# Starting IPv6 addressing

## Network Topology:



## R1 CLI:

```
R1>en
R1#sh ip int br
Interface          IP-Address      OK? Method Status          Protocol
GigabitEthernet0/0  192.168.1.1    YES manual up           up
GigabitEthernet0/1  192.168.2.1    YES manual up           up
GigabitEthernet0/2  192.168.3.1    YES manual up           up
Vlan1              unassigned     YES unset administratively down down
R1#ipv6 unicast-routing
^
% Invalid input detected at '^' marker.

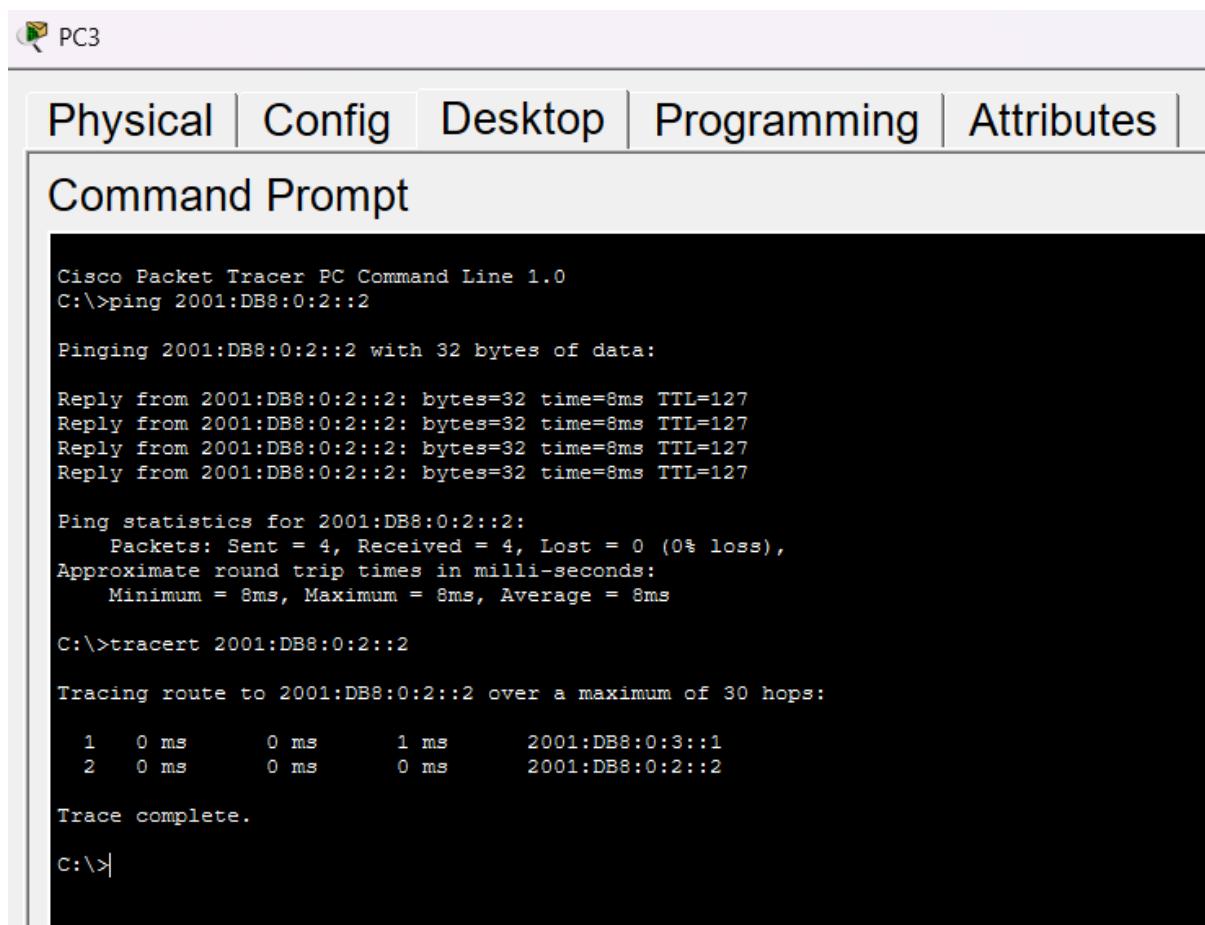
R1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
R1(config)#ipv6 unicast-routing
R1(config)#int g0/0
R1(config-if)#ipv6 address 2001:DB8:0:1::1/64
R1(config-if)#no shutdown
R1(config-if)#int g0/1
R1(config-if)#ipv6 address 2001:DB8:0:2::1/64
R1(config-if)#no shutdown
R1(config-if)#int g0/2
R1(config-if)#ipv6 address 2001:DB8:0:3::1/64
R1(config-if)#no shutdown
R1(config-if)#do sh ipv6 int br
GigabitEthernet0/0      [up/up]
  FE80::201:97FF:FE9A:AC01
  2001:DB8:0:1::1
GigabitEthernet0/1      [up/up]
  FE80::201:97FF:FE9A:AC02
  2001:DB8:0:2::1
GigabitEthernet0/2      [up/up]
  FE80::201:97FF:FE9A:AC03
  2001:DB8:0:3::1
Vlan1                  [administratively down/down]
R1(config-if)#

```

Default gateways and IPv6 addresses on PC1, PC2 and PC3 are configured.

PC's are able to ping each other using IPv6 addresses.

## PC3 CLI:



The screenshot shows the Cisco Packet Tracer PC Command Line interface. The title bar says "PC3". Below it is a navigation bar with tabs: Physical, Config, Desktop, Programming, and Attributes. The "Physical" tab is selected. The main area is titled "Command Prompt".

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 2001:DB8:0:2::2

Pinging 2001:DB8:0:2::2 with 32 bytes of data:

Reply from 2001:DB8:0:2::2: bytes=32 time=8ms TTL=127

Ping statistics for 2001:DB8:0:2::2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 8ms, Maximum = 8ms, Average = 8ms

C:\>tracert 2001:DB8:0:2::2

Tracing route to 2001:DB8:0:2::2 over a maximum of 30 hops:
  1  0 ms      0 ms      1 ms      2001:DB8:0:3::1
  2  0 ms      0 ms      0 ms      2001:DB8:0:2::2

Trace complete.

C:\>
```

The first IPv6 address is the router default gateway for PC3, and the second is the destination address, i.e., PC2.