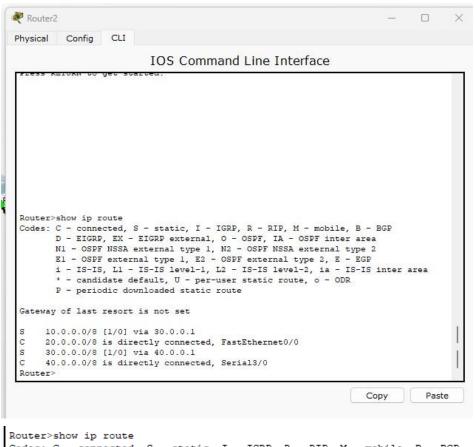
# **Static routing**



```
Router>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

S 10.0.0.0/8 [1/0] via 30.0.0.1

S 20.0.0.0/8 [1/0] via 40.0.0.2

C 30.0.0.0/8 is directly connected, Serial2/0

C 40.0.0.0/8 is directly connected, Serial3/0

Router>
```

### Command Prompt

```
PC>ping 20.0.0.1
Pinging 20.0.0.1 with 32 bytes of data:
Reply from 20.0.0.1: bytes=32 time=10ms TTL=253
Reply from 20.0.0.1: bytes=32 time=9ms TTL=253
Reply from 20.0.0.1: bytes=32 time=6ms TTL=253
Reply from 20.0.0.1: bytes=32 time=7ms TTL=253
Ping statistics for 20.0.0.1:
  Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 6ms, Maximum = 10ms, Average = 8ms
PC>ping 30.0.0.1
Pinging 30.0.0.1 with 32 bytes of data:
Reply from 30.0.0.1: bytes=32 time=0ms TTL=255
Ping statistics for 30.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = Oms, Maximum = Oms, Average = Oms
```

## Command Prompt

```
PC>ping 10.0.0.1
Pinging 10.0.0.1 with 32 bytes of data:
Reply from 10.0.0.1: bytes=32 time=7ms TTL=253
Reply from 10.0.0.1: bytes=32 time=10ms TTL=253
Reply from 10.0.0.1: bytes=32 time=9ms TTL=253
Reply from 10.0.0.1: bytes=32 time=6ms TTL=253
Ping statistics for 10.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
   Minimum = 6ms, Maximum = 10ms, Average = 8ms
PC>ping 40.0.0.1
Pinging 40.0.0.1 with 32 bytes of data:
Reply from 40.0.0.1: bytes=32 time=9ms TTL=254
Reply from 40.0.0.1: bytes=32 time=3ms TTL=254
Reply from 40.0.0.1: bytes=32 time=5ms TTL=254
Reply from 40.0.0.1: bytes=32 time=3ms TTL=254
Ping statistics for 40.0.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
   Minimum = 3ms, Maximum = 9ms, Average = 5ms
```

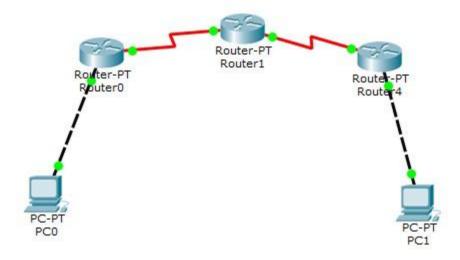
```
Router>show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
      D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
      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
   10.0.0.0/8 is directly connected, FastEthernet0/0
   20.0.0.0/8 [1/0] via 40.0.0.1
               [1/0] via 30.0.0.2
C
   30.0.0.0/8 is directly connected, Serial2/0
S 40.0.0.0/8 [1/0] via 30.0.0.2
               [1/0] via 20.0.0.2
               [1/0] via 20.0.0.1
Router>%IP-4-DUPADDR: Duplicate address 10.0.0.1 on FastEthernet0/0, sourced by
00E0.A3D1.AC7A
```

#### WEEK2

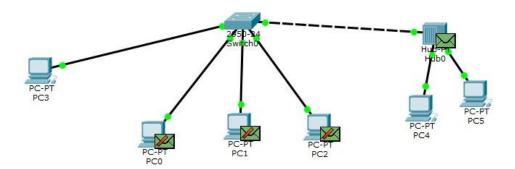
```
Command Prompt
Packet Tracer PC Command Line 1.0
PC>ping 20.0.0.1
Pinging 20.0.0.1 with 32 bytes of data:
 Request timed out.
 Request timed out.
 Request timed out.
 Request timed out.
Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
PC>ping 30.0.0.1
Pinging 30.0.0.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
 Ping statistics for 30.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

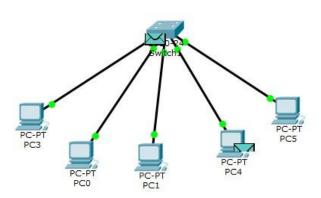
# Command Prompt

```
Packet Tracer PC Command Line 1.0
PC>ping 20.0.0.1
Pinging 20.0.0.1 with 32 bytes of data:
Reply from 10.0.0.2: Destination host unreachable.
Ping statistics for 20.0.0.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
PC>ping 30.0.0.0
Pinging 30.0.0.0 with 32 bytes of data:
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Ping statistics for 30.0.0.0:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
   Minimum = 0ms, Maximum = 0ms, Average = 0ms
PC>
```



#### WEEK 1





# **Command Prompt**

```
Packet Tracer PC Command Line 1.0
PC>ping 192.168.0.2

Pinging 192.168.0.2 with 32 bytes of data:

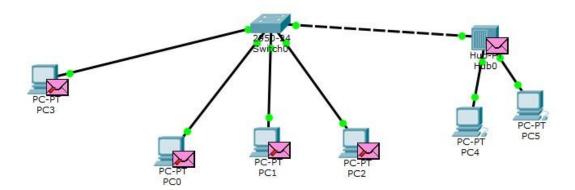
Reply from 192.168.0.2: bytes=32 time=2ms TTL=128
Reply from 192.168.0.2: bytes=32 time=0ms TTL=128
Reply from 192.168.0.2: bytes=32 time=0ms TTL=128
Reply from 192.168.0.2: bytes=32 time=0ms TTL=128

Ping statistics for 192.168.0.2:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 2ms, Average = 0ms

PC>
```



## **WEEK 3 Default routing**

```
Router>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 30.0.0.2 to network 0.0.0.0
    10.0.0.0/8 is directly connected, FastEthernet0/0
C 30.0.0.0/8 is directly connected, Serial2/0
   0.0.0.0/0 [1/0] via 30.0.0.2
Router>
 Router>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
     10.0.0.0/8 [1/0] via 30.0.0.1
     20.0.0.0/8 [1/0] via 40.0.0.2
     30.0.0.0/8 is directly connected, Serial2/0
 С
      40.0.0.0/8 is directly connected, Serial3/0
 Router>
```

#### Router>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 40.0.0.1 to network 0.0.0.0

C 20.0.0.0/8 is directly connected, FastEthernet0/0 C 40.0.0.0/8 is directly connected, Serial3/0 S\* 0.0.0.0/0 [1/0] via 40.0.0.1 Router>

