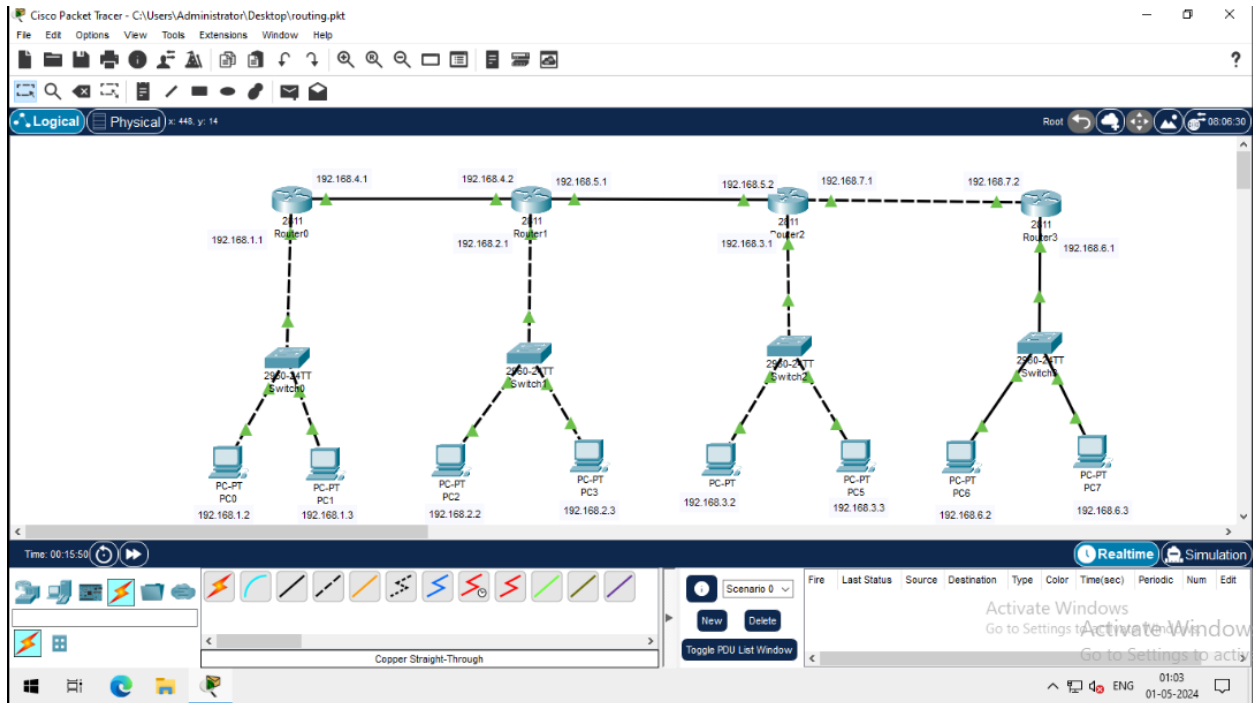


OSPF ROUTING



Give ip address to all pc's and ports of routers according to the above figure .

Ospf in Router 1

```
Router>
Router>en
Router#conf ter
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router ospf 17
Router(config-router)#network 192.168.1.0 0.0.0.255
% Incomplete command.
Router(config-router)#network 192.168.1.0 0.0.0.255 area 0
Router(config-router)#network 192.168.4.0 0.0.0.255 area 0
Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#sh ip rou
Router#sh ip route
Codes: L - local, 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, E - EGP
        i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter
        * - candidate default, U - per-user static route, o - ODR
        P - periodic downloaded static route

Gateway of last resort is not set

    192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.1.0/24 is directly connected, FastEthernet0/0
L       192.168.1.1/32 is directly connected, FastEthernet0/0
L       192.168.4.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.4.0/24 is directly connected, FastEthernet0/1
L       192.168.4.1/32 is directly connected, FastEthernet0/1

Router#
```

In router 2,

```
Router(config)#router ospf 17
Router(config-router)#network 192.168.4.0 0.0.0.255 area 0
Router(config-router)#network 192.168.4.0 0.0.0.255 area 0
00:19:24: %OSPF-6-ADJCHG: Process 17, Nbr 192.168.4.1 on Ethernet1/0
Router(config-router)#network 192.168.2.0 0.0.0.255 area 0
Router(config-router)#network 192.168.5.0 0.0.0.255 area 0
Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console

Router#sh ip route br
Router#sh ip route br
Router#sh ip route
Codes: L - local, 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, 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

O       192.168.1.0/24 [110/11] via 192.168.4.1, 00:00:50, Ethernet1/0
L       192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, FastEthernet0/0
L       192.168.2.1/32 is directly connected, FastEthernet0/0
L       192.168.4.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.4.0/24 is directly connected, Ethernet1/0
L       192.168.4.2/32 is directly connected, Ethernet1/0
L       192.168.5.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.5.0/24 is directly connected, FastEthernet0/1
L       192.168.5.1/32 is directly connected, FastEthernet0/1

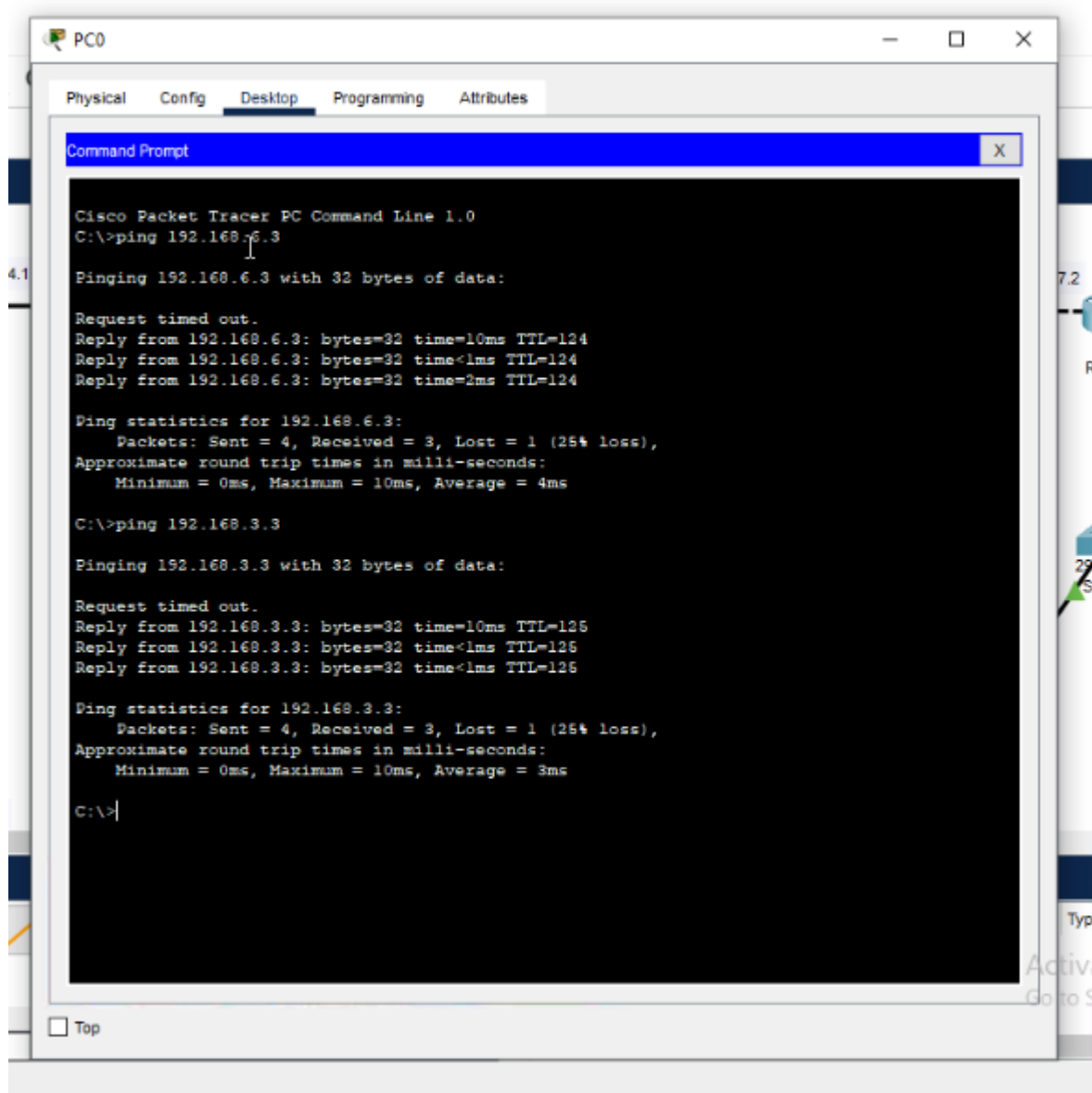
Router#
```

Router 3 ,

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Ethernet1/0, changed
Router(config-if)#
Router(config-if)#exit
Router(config)#router ospf 17
Router(config-router)#network 192.168.3.0 0.0.0.255 area 0
Router(config-router)#network 192.168.5.0 0.0.0.255 area 0
Router(config-router)#network 192.168.7.0 0.0.0.255 area 0
Router(config-router)#exit
Router(config)#exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
Router#
```

Router 4 ,

```
Router#conf ter
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)#router ospf 17
Router(config-router)#netw
Router(config-router)#network 192.168.6.0 0.0.0.255 area 0
Router(config-router)#network 192.168.7.0 0.0.0.255 area 0
Router(config-router)#exit
Router(config)#exit
Router#
```



Done !!!