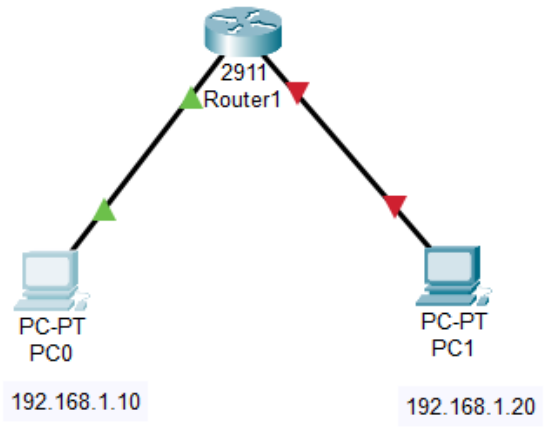
Q12. Configure a standard Access Control List (ACL) on a router to permit traffic from a specific IP range. Test connectivity to verify the ACL is working as intended.



Router Configurations

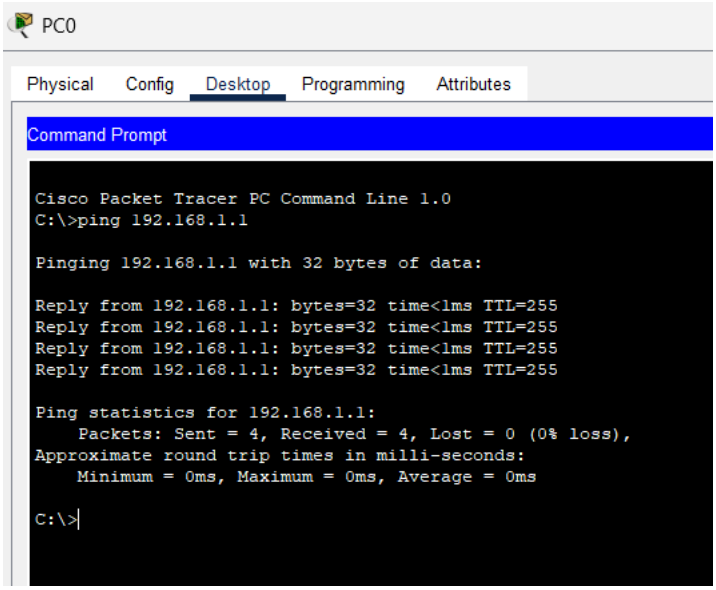
Standard ACL Configuration

ACL to Allow PC0 (192.168.1.10) and Block Others

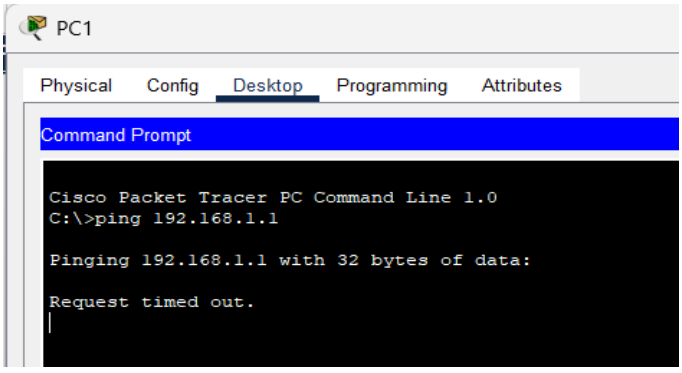
```
Router>enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
exit
Router(config)#access-list 10 permit 192.168.1.10 0.0.0.0
Router(config)#access-list 10 deny any
Router(config)#interface GigabitEthernet 0/0
Router(config-if)#ip access-group 10 in
Router(config-if)#exit
```

```
Router#show access-lists
Standard IP access list 10
    10 permit host 192.168.1.10 (4 match(es))
    20 deny any

Router#show ip interface GigabitEthernet 0/0
GigabitEthernet0/0 is up, line protocol is up (connected)
  Internet address is 192.168.1.1/24
  Broadcast address is 255.255.255.255
  Address determined by setup command
  MTU is 1500 bytes
  Helper address is not set
  Directed broadcast forwarding is disabled
  Outgoing access list is not set
  Inbound  access list is 10
  Proxy ARP is enabled
  Security level is default
  Split horizon is enabled
  ICMP redirects are always sent
  ICMP unreachables are always sent
  ICMP mask replies are never sent
  IP fast switching is disabled
  IP fast switching on the same interface is disabled
  IP Flow switching is disabled
  IP Fast switching turbo vector
  IP multicast fast switching is disabled
  IP multicast distributed fast switching is disabled
  Router Discovery is disabled
```

PC0-> PC1 ping Success



PC1 ->PC0 ping failure



PC0 (192.168.1.10) can communicate with the router. PC1 (192.168.1.20) is blocked from communicating.