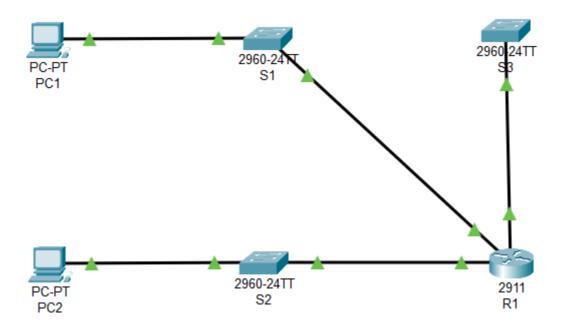
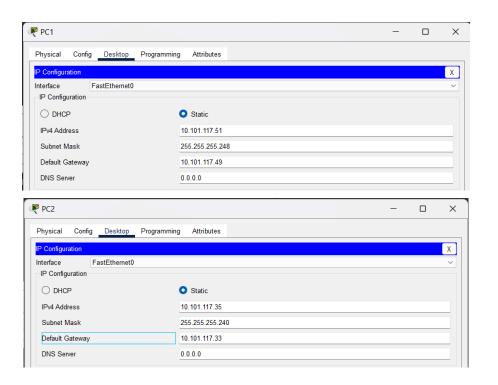
Security in Computing Practical - 3B

➤ Aim: Configure, Apply and Verify an Extended Numbered ACL

Topology Diagram:



Assign IP Addresses:



```
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config) #host Rl
Rl(config) #interface GigabitEthernet0/0
R1(config-if) #ip address 10.101.117.49 255.255.255.248
Rl(config-if) #no shut
R1(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
Rl(config-if) #interface GigabitEthernet0/1
R1(config-if) #ip address 10.101.117.33 255.255.255.240
Rl(config-if) #no shut
R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
Rl(config-if) #interface GigabitEthernet0/2
R1(config-if) #ip address 10.101.117.1 255.255.255.224
Rl(config-if) #no shut
R1(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to up
R1(config-if)#^Z
R1#
%SYS-5-CONFIG I: Configured from console by console
Rl#exit
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch (config) #host Sl
Sl(config) #interface vlan 1
S1(config-if) #ip address 10.101.117.50 255.255.255.248
S1(config-if) #no shut
S1(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
Sl(config-if)#exit
S1(config) #ip default-gateway 10.101.117.49
S1(config)#^Z
S1#
%SYS-5-CONFIG I: Configured from console by console
S1#exit
```

```
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config) #host S2
S2(config)#interface vlan 1
S2(config-if) #ip address 10.101.117.34 255.255.255.240
S2(config-if) #no shut
S2(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
S2(config-if)#exit
S2(config) #ip default-gateway 10.101.117.33
S2 (config) #^Z
S2#
%SYS-5-CONFIG I: Configured from console by console
S2#exit
Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch (config) #host S3
S3(config)#interface vlan 1
S3(config-if) #ip address 10.101.117.2 255.255.255.224
S3(config-if) #no shut
S3(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
S3(config-if)#exit
S3(config) #ip default-gateway 10.101.117.1
S3(config)#^Z
S3#
%SYS-5-CONFIG I: Configured from console by console
S3#exit
```

Displaying IP Addresses Details:

Rl>show ip interface	brief		
Interface	IP-Address	OK? Method Status	Protocol
GigabitEthernet0/0	10.101.117.49	YES manual up	up
GigabitEthernet0/1	10.101.117.33	YES manual up	up
GigabitEthernet0/2	10.101.117.1	YES manual up	up
Vlanl	unassigned	YES unset administratively	down down

Sl>show ip interface				
Interface	IP-Address	OK? Method		Protocol
FastEthernet0/1	unassigned	YES manual		up
FastEthernet0/2	unassigned	YES manual	-	up
FastEthernet0/3	unassigned	YES manual		down
FastEthernet0/4	unassigned	YES manual	l down	down
FastEthernet0/5	unassigned	YES manual	l down	down
FastEthernet0/6	unassigned	YES manua	l down	down
FastEthernet0/7	unassigned	YES manua:	l down	down
FastEthernet0/8	unassigned	YES manua:	l down	down
FastEthernet0/9	unassigned	YES manual	l down	down
FastEthernet0/10	unassigned	YES manua	l down	down
FastEthernet0/11	unassigned	YES manual	l down	down
FastEthernet0/12	unassigned	YES manual	l down	down
FastEthernet0/13	unassigned	YES manual	l down	down
FastEthernet0/14	unassigned	YES manual	l down	down
FastEthernet0/15	unassigned	YES manual	l down	down
FastEthernet0/16	unassigned	YES manual	l down	down
FastEthernet0/17	unassigned	YES manual		down
FastEthernet0/18	unassigned	YES manual		down
FastEthernet0/19	unassigned	YES manual		down
FastEthernet0/20	unassigned	YES manua		down
FastEthernet0/21	unassigned	YES manual		down
FastEthernet0/22	unassigned	YES manual		down
FastEthernet0/23	unassigned	YES manual		down
FastEthernet0/24	unassigned	YES manual		down
GigabitEthernet0/1	unassigned	YES manual		down
-	-			down
-1 G3D1 F#FDAYDA+0/2				
-	unassigned 10.101.117.50	YES manua: YES manua:		up
Vlanl	10.101.117.50			
Vlanl S2>show ip interface	10.101.117.50 e brief	YES manua:	l up	up
Vlanl S2>show ip interface Interface	10.101.117.50 brief IP-Address	YES manual	l up i Status	up Protocol
Vlan1 S2>show ip interface Interface FastEthernet0/1	10.101.117.50 brief IP-Address unassigned	YES manual	l up i Status l up	up Protocol up
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2	10.101.117.50 brief IP-Address unassigned unassigned	YES manual OK? Method YES manual YES manual	l up i Status L up L up	up Protocol up up
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3	10.101.117.50 brief IP-Address unassigned unassigned unassigned unassigned	OK? Method YES manual YES manual YES manual	l up d Status L up L up L down	Protocol up up down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4	10.101.117.50 brief IP-Address unassigned unassigned unassigned unassigned unassigned	OK? Method YES manual YES manual YES manual YES manual	l up d Status L up L up L down L down	Protocol up up down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5	10.101.117.50 brief IP-Address unassigned unassigned unassigned unassigned unassigned unassigned unassigned	OK? Method YES manual YES manual YES manual YES manual YES manual	l up d Status L up L up L down L down L down	Protocol up up down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual YES manual YES manual YES manual YES manual YES manual	l up d Status L up L up L down L down L down L down L down	Protocol up up down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual YES manual YES manual YES manual YES manual YES manual	l up d Status l up l up l down l down l down l down l down	Protocol up up down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual YES manual YES manual YES manual YES manual YES manual YES manual	l up d Status l up l up l down l down l down l down l down l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual YES manual YES manual YES manual YES manual YES manual YES manual YES manual	l up d Status l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual YES manual YES manual YES manual YES manual YES manual YES manual YES manual YES manual	l up d Status l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up di Status l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16 FastEthernet0/16 FastEthernet0/17	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l up l down	Protocol up up down down down down down down down down
Viani S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16 FastEthernet0/17 FastEthernet0/17 FastEthernet0/18	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16 FastEthernet0/17 FastEthernet0/18 FastEthernet0/19	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16 FastEthernet0/17 FastEthernet0/18 FastEthernet0/19 FastEthernet0/20	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16 FastEthernet0/17 FastEthernet0/17 FastEthernet0/18 FastEthernet0/19 FastEthernet0/20 FastEthernet0/21	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status up up down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16 FastEthernet0/17 FastEthernet0/17 FastEthernet0/18 FastEthernet0/19 FastEthernet0/20 FastEthernet0/21 FastEthernet0/21 FastEthernet0/22	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	d Status up up down down down down down down down down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16 FastEthernet0/17 FastEthernet0/17 FastEthernet0/18 FastEthernet0/19 FastEthernet0/20 FastEthernet0/21 FastEthernet0/21 FastEthernet0/22 FastEthernet0/23	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16 FastEthernet0/17 FastEthernet0/17 FastEthernet0/18 FastEthernet0/19 FastEthernet0/20 FastEthernet0/21 FastEthernet0/21 FastEthernet0/22	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status l up l up l up l down	Protocol up up down down down down down down down down
Vlan1 S2>show ip interface Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/8 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16 FastEthernet0/17 FastEthernet0/17 FastEthernet0/18 FastEthernet0/19 FastEthernet0/20 FastEthernet0/21 FastEthernet0/22 FastEthernet0/23	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	d Status up up down down down down down down down down	Protocol up up down down down down down down down down
Interface FastEthernet0/1 FastEthernet0/2 FastEthernet0/3 FastEthernet0/4 FastEthernet0/5 FastEthernet0/6 FastEthernet0/7 FastEthernet0/9 FastEthernet0/10 FastEthernet0/11 FastEthernet0/12 FastEthernet0/13 FastEthernet0/14 FastEthernet0/15 FastEthernet0/16 FastEthernet0/17 FastEthernet0/17 FastEthernet0/19 FastEthernet0/19 FastEthernet0/20 FastEthernet0/21 FastEthernet0/22 FastEthernet0/23 FastEthernet0/24	10.101.117.50 brief IP-Address unassigned	OK? Method YES manual	l up d Status up up down down	Protocol up up down down down down down down down down

S3>show ip interface b	rief		
Interface	IP-Address	OK? Method Status	Protocol
FastEthernet0/1	unassigned	YES manual up	up
FastEthernet0/2	unassigned	YES manual down	down
FastEthernet0/3	unassigned	YES manual down	down
FastEthernet0/4	unassigned	YES manual down	down
FastEthernet0/5	unassigned	YES manual down	down
FastEthernet0/6	unassigned	YES manual down	down
FastEthernet0/7	unassigned	YES manual down	down
FastEthernet0/8	unassigned	YES manual down	down
FastEthernet0/9	unassigned	YES manual down	down
FastEthernet0/10	unassigned	YES manual down	down
FastEthernet0/11	unassigned	YES manual down	down
FastEthernet0/12	unassigned	YES manual down	down
FastEthernet0/13	unassigned	YES manual down	down
FastEthernet0/14	unassigned	YES manual down	down
FastEthernet0/15	unassigned	YES manual down	down
FastEthernet0/16	unassigned	YES manual down	down
FastEthernet0/17	unassigned	YES manual down	down
FastEthernet0/18	unassigned	YES manual down	down
FastEthernet0/19	unassigned	YES manual down	down
FastEthernet0/20	unassigned	YES manual down	down
FastEthernet0/21	unassigned	YES manual down	down
FastEthernet0/22	unassigned	YES manual down	down
FastEthernet0/23	unassigned	YES manual down	down
FastEthernet0/24	unassigned	YES manual down	down
GigabitEthernet0/1	unassigned	YES manual down	down
GigabitEthernet0/2	unassigned	YES manual down	down
Vlanl	10.101.117.2	YES manual up	up

Configuring Telnet on S3:

```
S3>en
S3#conf t
Enter configuration commands, one per line. End with CNTL/Z.
S3(config) #username admin password teacher
S3(config) #line vty 0 4
S3(config-line) #login local
S3(config-line) #^Z
S3#
%SYS-5-CONFIG_I: Configured from console by console
S3#exit
```

Configure, Apply and Verify an Extended Numbered ACL (Devices on LAN 10.101.117.32 are allowed to remotely access devices in LAN 10.101.117.0 using the TELNET protocol. Besides ICMP, all traffic from other networks is denied.):

```
R1>en
R1#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R1(config) #access-list ?
 <1-99>
           IP standard access list
 <100-199> IP extended access list
R1(config) #access-list 199 ?
        Specify packets to reject
 deny
 permit Specify packets to forward
 remark Access list entry comment
R1(config) #access-list 199 permit ?
        Authentication Header Protocol
 eigrp Cisco's EIGRP routing protocol
 esp Encapsulation Security Payload
      Cisco's GRE tunneling
 gre
 icmp Internet Control Message Protocol
       Any Internet Protocol
 ospf OSPF routing protocol
       Transmission Control Protocol
 tcp
      User Datagram Protocol
 udp
R1(config) #access-list 199 permit tcp ?
 A.B.C.D Source address
       Any source host
 any
         A single source host
 host
Rl(config) #access-list 199 permit tcp 10.101.117.32 ?
 A.B.C.D Source wildcard bits
R1(config) #access-list 199 permit tcp 10.101.117.32 0.0.0.15 ?
 A.B.C.D Destination address
        Any destination host
 any
         Match only packets on a given port number
 eq
         Match only packets with a greater port number
 gt
         A single destination host
 lt
         Match only packets with a lower port number
         Match only packets not on a given port number
 range Match only packets in the range of port numbers
R1(config) #access-list 199 permit tcp 10.101.117.32 0.0.0.15 10.101.117.0 ?
 A.B.C.D Destination wildcard bits
R1(config) #access-list 199 permit tcp 10.101.117.32 0.0.0.15 10.101.117.0 0.0.0.31 ?
 dscp
             Match packets with given dscp value
             Match only packets on a given port number
 established established
              Match only packets with a greater port number
 gt
```

```
1t
             Match only packets with a lower port number
             Match only packets not on a given port number
 precedence Match packets with given precedence value
 range
             Match only packets in the range of port numbers
 <cr>
R1(config) #access-list 199 permit tcp 10.101.117.32 0.0.0.15 10.101.117.0 0.0.0.31 eq ?
 <0-65535> Port number
        File Transfer Protocol (21)
 ftp
          Post Office Protocol v3 (110)
 pop3
          Simple Mail Transport Protocol (25)
 smtp
           Telnet (23)
 telnet
          World Wide Web (HTTP, 80)
R1(config) #access-list 199 permit tcp 10.101.117.32 0.0.0.15 10.101.117.0 0.0.0.31 eq telnet
R1(config) #access-list 199 ?
       Specify packets to reject
 permit Specify packets to forward
 remark Access list entry comment
R1(config) #access-list 199 permit ?
 ahp Authentication Header Protocol
 eigrp Cisco's EIGRP routing protocol
 esp Encapsulation Security Payload
 gre Cisco's GRE tunneling
 icmp Internet Control Message Protocol
       Any Internet Protocol
 ip
 ospf OSPF routing protocol
      Transmission Control Protocol
 tcp
      User Datagram Protocol
 udp
R1(config) #access-list 199 permit icmp ?
 A.B.C.D Source address
 any
          Any source host
         A single source host
 host
R1(config) #access-list 199 permit icmp any ?
 A.B.C.D Destination address
         Any destination host
 host
         A single destination host
R1(config) #access-list 199 permit icmp any any
Rl(config)#interface GigabitInterface0/2
% Invalid input detected at '^' marker.
Rl(config)#interface GigabitEthernet0/2
R1(config-if) #ip access-group 199 out
                 R1(config-if)#^Z
                 %SYS-5-CONFIG I: Configured from console by console
                 R1#exit
```

Verify the Extended ACL implementation:

