Bilgisayar Ağları Final Ödevi

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Device	Interface	Cable Type	Device	Interface
PC0	Fast Ethernet0	Copper Straight-Through	SWİTCH0	Fast Ethernet0/1
PC1	Fast Ethernet0	Copper Straight-Through	SWİTCH0	Fast Ethernet0/2
PC2	Fast Ethernet0	Copper Straight-Through	SWİTCH0	Fast Ethernet0/3
PC3	Fast Ethernet0	Copper Straight-Through	SWİTCH1	Fast Ethernet0/1
PC4	Fast Ethernet0	Copper Straight-Through	SWİTCH1	Fast Ethernet0/2
PC5	Fast Ethernet0	Copper Straight-Through	SWİTCH1	Fast Ethernet0/3
PC6	Fast Ethernet0	Copper Straight-Through	SWİTCH2	Fast Ethernet0/1
PC7	Fast Ethernet0	Copper Straight-Through	SWİTCH2	Fast Ethernet0/2
PC8	Fast Ethernet0	Copper Straight-Through	SWİTCH2	Fast Ethernet0/3
SWITCH0	Fast Ethernet0/4	Copper Cross-Over	SWITCH1	Fast Ethernet0/4
SWITCH1	Fast Ethernet0/5	Copper Cross-Over	SWITCH2	Fast Ethernet0/5

Cihazlar arasındaki bağlantı yukarıdaki tabloya göre sağlandı.

Adres Tablosu

Device	IP Address	Subnet Mask
S0	192.168.10.252	255.255.255.0
S1	192.168.10.253	255.255.255.0
S2	192.168.10.254	255.255.255.0
PC0	192.168.10.2	255.255.255.0
PC1	192.168.10.3	255.255.255.0
PC2	192.168.10.4	255.255.255.0
PC3	192.168.10.5	255.255.255.0
PC4	192.168.10.6	255.255.255.0
PC5	192.168.10.7	255.255.255.0
PC6	192.168.10.8	255.255.255.0
PC7	192.168.10.9	255.255.255.0
PC8	192.168.10.10	255.255.255.0

Cihazların IP adresleri yukarıdaki tabloya göre yapılandırıldı.

-> Switch0 Konfigürasyonu

Ad Atama:

```
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname S0
S0(config)#exit
S0#
%SYS-5-CONFIG_I: Configured from console by console
```

Konsol hattına güvenli erişim:

```
S0#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
S0(config)#line console 0
S0(config-line)#password letmeinS0
S0(config-line)#login
S0(config-line)#exit
S0(config)#exit
S0#
%SYS-5-CONFIG_I: Configured from console by console
```

Ayrıcalıklı moda güvenli erişim:

```
S0>enable
S0#configure ter
Enter configuration commands, one per line.  End with CNTL/Z.
S0(config)#enable password e2Re9
S0(config)#exit
S0#
%SYS-5-CONFIG_I: Configured from console by console
.
```

Ayrıcalıklı mod erişiminin güvenli olduğunu doğrulama:

```
S0#show running-config
Building configuration...

Current configuration : 1127 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname S0                              line con 0
!                                         password letmeinS0
enable password e2Re9                     login
```

Ayrıcalıklı moda güvenli erişim için şifreli bir parola yapılandırma:

```
S0#config ter
Enter configuration commands, one per line.  End with CNTL/Z.
S0(config)#enable secret itsasecretS0
S0(config)#exit
S0#
%SYS-5-CONFIG_I: Configured from console by console
```

Etkinleştirme ve konsol parolalarını şifreleme:

```
S0#config t
Enter configuration commands, one per line.  End with CNTL/Z.
S0(config)#service password-encryption
S0(config)#exit
S0#
%SYS-5-CONFIG_I: Configured from console by console
```

MOTD mesajlarının yapılandırılması:

```
S0#config t
Enter configuration commands, one per line.  End with CNTL/Z.
S0(config)#banner motd "Bu guvenli bir sistemdir.Yalnizca yetkililer erisebilir!"
S0(config)#exit
S0#
%SYS-5-CONFIG_I: Configured from console by console
```

Yapılandırma Dosyalarının NVRAM'e Kaydedilmesi:

```
S0#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```

-> Switch1 Konfigürasyonu

Ad Atama:
```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname S1
S1(config)#exit
S1#
%SYS-5-CONFIG_I: Configured from console by console
```

Konsol hattına güvenli erişim:
```
S1#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
S1(config)#line console 0
S1(config-line)#password letmeinS1
S1(config-line)#login
S1(config-line)#exit
S1(config)#exit
S1#
%SYS-5-CONFIG_I: Configured from console by console
```

Ayrıcalıklı moda güvenli erişim:
```
S1#configure ter
Enter configuration commands, one per line.  End with CNTL/Z.
S1(config)#enable password e2Re9
S1(config)#exit
S1#
%SYS-5-CONFIG_I: Configured from console by console
```

Ayrıcalıklı mod erişiminin güvenli olduğunu doğrulama:

```
S1#show running-config
Building configuration...

Current configuration : 1127 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname S1                                    line con 0
!                                               password letmeinS1
enable password e2Re9                           login
```

Ayrıcalıklı moda güvenli erişim için şifreli bir parola yapılandırma:

```
S1#config ter
Enter configuration commands, one per line.  End with CNTL/Z.
S1(config)#enable secret itsasecretS1
S1(config)#exit
S1#
%SYS-5-CONFIG_I: Configured from console by console
```

Etkinleştirme ve konsol parolalarını şifreleme:

```
S1#config ter
Enter configuration commands, one per line.  End with CNTL/Z.
S1(config)#service password-encryption
S1(config)#exit
S1#
%SYS-5-CONFIG_I: Configured from console by console
```

MOTD mesajlarının yapılandırılması:

```
S1#config ter
Enter configuration commands, one per line.  End with CNTL/Z.
S1(config)#banner motd "Bu guvenli bir sistemdir. Yalnizca Yetkililer Erisebilir!"
S1(config)#exit
S1#
%SYS-5-CONFIG_I: Configured from console by console
```

Yapılandırma Dosyalarının NVRAM'e Kaydedilmesi:

```
S1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```

-> Switch2 Konfigürasyonu

Ad atama ve konsol hattına güvenli erişim:

```
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname S2
S2(config)#line console 0
S2(config-line)#password letmeinS2
S2(config-line)#login
S2(config-line)#exit
S2(config)#exit
S2#
%SYS-5-CONFIG_I: Configured from console by console
```

Ayrıcalıklı moda güvenli erişim:

```
S2>enable
S2#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
S2(config)#enable password e2Re9
S2(config)#exit
S2#
%SYS-5-CONFIG_I: Configured from console by console
```

Ayrıcalıklı mod erişiminin güvenli olduğunu doğrulama:

```
S2#show running-config
Building configuration...

Current configuration : 1127 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname S2                              line con 0
!                                         password letmeinS2
enable password e2Re9                     login
```

Ayrıcalıklı moda güvenli erişim için şifreli bir parola yapılandırma:

```
S2#config ter
Enter configuration commands, one per line.  End with CNTL/Z.
S2(config)#enable secret itsasecret
S2(config)#exit
S2#
%SYS-5-CONFIG_I: Configured from console by console
```

Etkinleştirme,konsol parolalarını şifreleme ve MOTD başlığının yapılandırılması:

```
S2#config ter
Enter configuration commands, one per line.  End with CNTL/Z.
S2(config)#service password-encryption
S2(config)#banner motd "Bu guvenli bir sistemdir.Sadece yetkililer erisebilir"
S2(config)#exit
S2#
%SYS-5-CONFIG_I: Configured from console by console
```

Yapılandırma Dosyalarının NVRAM'e Kaydedilmesi:

```
S2#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```

-> Switchlerin Yönetim Arayüzlerinin Yapılandırılması

S0'ı bir IP adresi ile yapılandırma:

```
S0>enable
Password:
S0#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
S0(config)#interface vlan 1
S0(config-if)#ip address 192.168.10.252 255.255.255.0
S0(config-if)#no shutdown

S0(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
```

S1'i bir IP adresi ile yapılandırma:

```
S1>enable
Password:
S1#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
S1(config)#interface vlan 1
S1(config-if)#ip address 192.168.10.253 255.255.255.0
S1(config-if)#no shutdown

S1(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
```

S2'i bir IP adresi ile yapılandırma:

```
S2>enable
Password:
S2#configure term
Enter configuration commands, one per line.  End with CNTL/Z.
S2(config)#interface vlan 1
S2(config-if)#ip address 192.168.10.254 255.255.255.0
S2(config-if)#no shutdown

S2(config-if)#
%LINK-5-CHANGED: Interface Vlan1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to up
```

Yapılandırma Dosyalarının NVRAM'e Kaydedilmesi:

```
S0#copy running-config startup-config      S1#copy running-config startup-config
Destination filename [startup-config]?      Destination filename [startup-config]?
Building configuration...                    Building configuration...

S2#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
```

-> Ağ Bağlantılarının Doğrulanması

P0 ve diğer cihazlar arasındaki iletişimlerin başarımı:

```
C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

Reply from 192.168.10.3: bytes=32 time=2ms TTL=128
Reply from 192.168.10.3: bytes=32 time<1ms TTL=128
Reply from 192.168.10.3: bytes=32 time<1ms TTL=128
Reply from 192.168.10.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 2ms, Average = 0ms

C:\>ping 192.168.10.4

Pinging 192.168.10.4 with 32 bytes of data:

Reply from 192.168.10.4: bytes=32 time=6ms TTL=128
Reply from 192.168.10.4: bytes=32 time<1ms TTL=128
Reply from 192.168.10.4: bytes=32 time<1ms TTL=128
Reply from 192.168.10.4: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 6ms, Average = 1ms

C:\>ping 192.168.10.5

Pinging 192.168.10.5 with 32 bytes of data:

Reply from 192.168.10.5: bytes=32 time<1ms TTL=128
Reply from 192.168.10.5: bytes=32 time<1ms TTL=128
Reply from 192.168.10.5: bytes=32 time<1ms TTL=128
Reply from 192.168.10.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping 192.168.10.6

Pinging 192.168.10.6 with 32 bytes of data:

Reply from 192.168.10.6: bytes=32 time<1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.7

Pinging 192.168.10.7 with 32 bytes of data:

Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.8

Pinging 192.168.10.8 with 32 bytes of data:

Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time=20ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 20ms, Average = 5ms

C:\>ping 192.168.10.9

Pinging 192.168.10.9 with 32 bytes of data:

Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time=1ms TTL=128
Reply from 192.168.10.9: bytes=32 time=1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.9:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

```
C:\>ping 192.168.10.10

Pinging 192.168.10.10 with 32 bytes of data:

Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.252

Pinging 192.168.10.252 with 32 bytes of data:

Reply from 192.168.10.252: bytes=32 time<1ms TTL=255
Reply from 192.168.10.252: bytes=32 time<1ms TTL=255
Reply from 192.168.10.252: bytes=32 time<1ms TTL=255
Reply from 192.168.10.252: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.10.252:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.253

Pinging 192.168.10.253 with 32 bytes of data:

Reply from 192.168.10.253: bytes=32 time=13ms TTL=255
Reply from 192.168.10.253: bytes=32 time=1ms TTL=255
Reply from 192.168.10.253: bytes=32 time<1ms TTL=255
Reply from 192.168.10.253: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.10.253:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 13ms, Average = 3ms

C:\>ping 192.168.10.254

Pinging 192.168.10.254 with 32 bytes of data:

Reply from 192.168.10.254: bytes=32 time<1ms TTL=255
Reply from 192.168.10.254: bytes=32 time<1ms TTL=255
Reply from 192.168.10.254: bytes=32 time<1ms TTL=255
Reply from 192.168.10.254: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.10.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

S0 ve diğer cihazlar arasındaki iletişimlerin başarımları :

```
S0>ping 192.168.10.253

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.253, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms


S0>ping 192.168.10.254

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.254, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms


S0>ping 192.168.10.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms


S0>ping 192.168.10.3

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms


S0>ping 192.168.10.4

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.4, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms


S0>ping 192.168.10.5

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.5, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/10/30 ms


S0>ping 192.168.10.6

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.6, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms
```

```
S0>ping 192.168.10.7

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.7, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms


S0>ping 192.168.10.8

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.8, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/2/10 ms


S0>ping 192.168.10.9

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.9, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/5/22 ms


S0>ping 192.168.10.10

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.10, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms
```

S1 ve diğer cihazlar arasındaki iletişimlerin başarımları :

```
S1>ping 192.168.10.254

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.254, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/1/5 ms


S1>ping 192.168.10.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms


S1>ping 192.168.10.3

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms


S1>ping 192.168.10.4

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.4, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms


S1>ping 192.168.10.5

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.5, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms
```

```
S1>ping 192.168.10.6

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.6, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms


S1>ping 192.168.10.7

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.7, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms


S1>ping 192.168.10.8

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.8, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms


S1>ping 192.168.10.9

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.9, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms


S1>ping 192.168.10.10

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.10, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/5/28 ms
```

S2 ve diğer cihazlar arasındaki iletişimlerin başarımları :

```
S2>ping 192.168.10.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms


S2>ping 192.168.10.3

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.3, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/6/29 ms


S2>ping 192.168.10.4

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.4, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/5/23 ms


S2>ping 192.168.10.5

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.5, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/1/5 ms
```

```
S2>ping 192.168.10.6

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.6, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms


S2>ping 192.168.10.7

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.7, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/1 ms


S2>ping 192.168.10.8

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.8, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms


S2>ping 192.168.10.9

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.9, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms


S2>ping 192.168.10.10

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.10, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms
```

PC1 ve diğer cihazlar arasındaki iletişimlerin başarımları :

```
Pinging 192.168.10.4 with 32 bytes of data:

Reply from 192.168.10.4: bytes=32 time<1ms TTL=128
Reply from 192.168.10.4: bytes=32 time=27ms TTL=128
Reply from 192.168.10.4: bytes=32 time=1ms TTL=128
Reply from 192.168.10.4: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 27ms, Average = 7ms

C:\>ping 192.168.10.5

Pinging 192.168.10.5 with 32 bytes of data:

Reply from 192.168.10.5: bytes=32 time<1ms TTL=128
Reply from 192.168.10.5: bytes=32 time<1ms TTL=128
Reply from 192.168.10.5: bytes=32 time<1ms TTL=128
Reply from 192.168.10.5: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping 192.168.10.6

Pinging 192.168.10.6 with 32 bytes of data:

Reply from 192.168.10.6: bytes=32 time<1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.7

Pinging 192.168.10.7 with 32 bytes of data:

Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.8

Pinging 192.168.10.8 with 32 bytes of data:

Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time=1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
C:\>ping 192.168.10.9

Pinging 192.168.10.9 with 32 bytes of data:

Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.9:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.10

Pinging 192.168.10.10 with 32 bytes of data:

Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

PC2 ve diğer cihazlar arasındaki iletişimlerin başarımları :

```
C:\>ping 192.168.10.5

Pinging 192.168.10.5 with 32 bytes of data:

Reply from 192.168.10.5: bytes=32 time<1ms TTL=128
Reply from 192.168.10.5: bytes=32 time<1ms TTL=128
Reply from 192.168.10.5: bytes=32 time=1ms TTL=128
Reply from 192.168.10.5: bytes=32 time=30ms TTL=128

Ping statistics for 192.168.10.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 30ms, Average = 7ms

C:\>ping 192.168.10.6

Pinging 192.168.10.6 with 32 bytes of data:

Reply from 192.168.10.6: bytes=32 time=11ms TTL=128
Reply from 192.168.10.6: bytes=32 time=1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 11ms, Average = 3ms

C:\>ping 192.168.10.7

Pinging 192.168.10.7 with 32 bytes of data:

Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time=1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

```
C:\>ping 192.168.10.8

Pinging 192.168.10.8 with 32 bytes of data:

Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping 192.168.10.9

Pinging 192.168.10.9 with 32 bytes of data:

Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.9:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.10

Pinging 192.168.10.10 with 32 bytes of data:

Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
```

PC3 ve diğer cihazlar arasındaki iletişimlerin başarımları :

```
C:\>ping 192.168.10.6

Pinging 192.168.10.6 with 32 bytes of data:

Reply from 192.168.10.6: bytes=32 time<1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128
Reply from 192.168.10.6: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.7

Pinging 192.168.10.7 with 32 bytes of data:

Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

```
C:\>ping 192.168.10.8

Pinging 192.168.10.8 with 32 bytes of data:

Reply from 192.168.10.8: bytes=32 time=1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time=1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.10.9

Pinging 192.168.10.9 with 32 bytes of data:

Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.9:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping 192.168.10.10

Pinging 192.168.10.10 with 32 bytes of data:

Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

PC4 ve diğer cihazlar arasındaki iletişimlerin başarımları :

```
C:\>ping 192.168.10.7

Pinging 192.168.10.7 with 32 bytes of data:

Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time<1ms TTL=128
Reply from 192.168.10.7: bytes=32 time=28ms TTL=128

Ping statistics for 192.168.10.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 28ms, Average = 7ms

C:\>ping 192.168.10.8

Pinging 192.168.10.8 with 32 bytes of data:

Reply from 192.168.10.8: bytes=32 time=1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

```
C:\>ping 192.168.10.9

Pinging 192.168.10.9 with 32 bytes of data:

Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time=35ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.9:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 35ms, Average = 8ms

C:\>ping 192.168.10.10

Pinging 192.168.10.10 with 32 bytes of data:

Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128
Reply from 192.168.10.10: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

PC5 ve diğer cihazlar arasındaki iletişimlerin başarımları :

```
C:\>ping 192.168.10.8

Pinging 192.168.10.8 with 32 bytes of data:

Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128
Reply from 192.168.10.8: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.9

Pinging 192.168.10.9 with 32 bytes of data:

Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time=1ms TTL=128
Reply from 192.168.10.9: bytes=32 time<1ms TTL=128
Reply from 192.168.10.9: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.9:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

SONUÇ

- Switchlerin temel konfigürasyonları yapıldı. (isimlendirme, şifrelendirme, kullanıcı mesajları gibi)

- PC ve switchlerin IP adresleri yapılandırıldı.

- Son olarak yukarıdaki gibi her bir cihaz arasındaki iletişimler ping atılarak kontrol edildi. Tüm pingler başarılı sonuç verdi. %0 kayıpla %100 başarım elde edildi.