Admin Laptop showing any switch configuration:

```
🤻 Admin
                                                     Config Desktop Programming
              Physical
                                                                                                                                                                                                                   Attributes
           Switch>show clock
*0:18:13.871 UTC Mon Mar 1 1993
Switch>enable
Switchicotk set 18:07:00 27 OCT 2023
Switchiconfig
Switchiconfigure
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line. End with CNTL/Z.
Switchiconfig|#clock timezone Jeddah 3 0
Switchiconfig|#shortname SWZ
SWZ(config)#banner motd #
Enter TEXT message. End with the character '#'.
Welcome to L2 Switch #
                    SW2(config) #enable secert netlab
                % Invalid input detected at '^' marker.
               SW2(config) #enable secret netlab

SW2(config) #username user! password netlab

SW2(config) #line con 0

SW2(config-line) #password netlab

SW2(config-line) #login

SW2(config-line) #exit

SW2(config) #line vty 0

SW2(config) #line vty 0

SW2(config-line) #login local

SW2(config-line) #trandprot input telent
                % Invalid input detected at '^' marker.
                SW2(config-line) #transprot input telent
                % Invalid input detected at '^' marker.
                SW2(config-line) #transport input telent
                % Invalid input detected at '^' marker.
               SW2(config-line) transport input telnet
SW2(config-line) text
SW2(config-vlan) text
SW2(config-vlan) text
SW2(config-vlan) text
SW2(config-vlan) text
SW2(config-vlan) text
                SW2(config-if) #
%LINK-5-CHANGED: Interface Vlan20, changed state to up
              SW2(config-if) ip address 192.168.20.2 255.255.255.0
SW2(config-if) no shutdown
SW2(config-if) exit
SW2(config-if) fexit
SW2(config) interface FastEthernet0/1
SW2(config-if) switchport mode access
SW2(config-if) switchport access vlan 20
SW2(config-if) switchport access vlan 20
SW2(config-if) to the first config-if) switchport access vlan 20
SW2(config-if) to the first config-if) switchport access vlan 20
SW2(config-if) to the first config-if) to the first config-if) to the first config-if to the first config-if) to the first config-if to the fi
                SW2(config-if) #exit
SW2(config) #interface GigabitEthernet0/1
SW2(config-if) #switchport mode trunk
SW2(config-if) #switchport trunk allowed vlan all
                SW2(config-if)#exit
SW2(config)#exit
```

Figure 1:Switch 2 configuration

Admin Laptop showing router R1 configuration:

```
R Admin
            Physical Config Desktop Programming Attributes
          Rifconfig
Rlfconfigure
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line. End with CNTL/Z.
Rl(config) finterface GigabitEthernet2/0.10
Rl(config-subif) fencapsulation dotQ 10
               % Invalid input detected at '^' marker.
            R1(config-subif) pencapsulation dot1Q 10
R1(config-subif) padderss 192.168.10.1 255.255.255.0
             % Invalid input detected at '^' marker.
             R1(config-subif)#ip adderss 192.168.10.1 255.255.255.0
             % Invalid input detected at '^' marker.
               Rl(config-subif) #ip adderss 192.168.10.1 255.255.255.0
               % Invalid input detected at '^' marker.
            R1(config-subif) fexit
R1(config) finterface GigabitEthernet1/0.20
R1(config-subif) fencapsulation dot10.20
R1(config-subif) fip adderss 192.168.20.1 255.255.255.0
               % Invalid input detected at '^' marker.
             R1(config) #interface GigabitEthernet4/0.30
R1(config) #interface GigabitEthernet4/0.30
R1(config-subif) #encapsulation dot1Q 30
R1(config-subif) #ip adders 192.168.30.1 255.255.255.0
                    Invalid input detected at '^' marker.
                 Rl(config-subif) #exit
Rl(config) #interface GigabitEthernet3/0.40
Rl(config-subif) #encapsulation dot10 40
Rl(config-subif) #ip adderss 192.168.40.1 255.255.255.0
             Rl(config-subif) #exit
Rl(config) #interface Gig2
             % Invalid input detected at '^' marker.
           * Invalid input detected at R1 (config)*interface Gig2/0 R1 (config-if)*fno shutdown R1 (config-if)*swit R1 (config)*dinterface Gig1/0 R1 (config)*dinterface Gig1/0 R1 (config-if)*swit R1 (config)*interface Gig4/0 R1 (config)*swit R1 (confi
```

Figure 2: R1 configuration

command prompt from all PCs showing successful ping between PC and Router:

pc1:

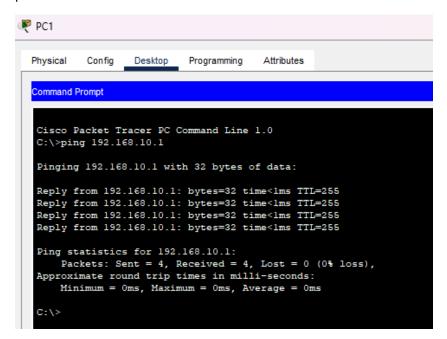


Figure 3: ping between PC1 and Router

Pc2:

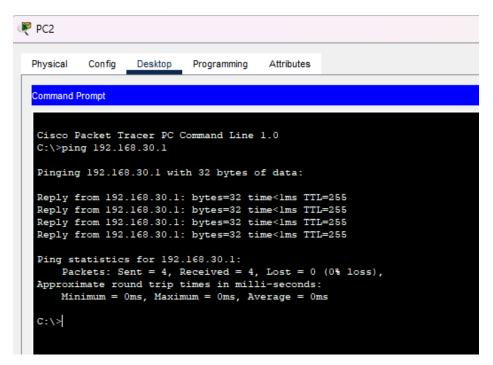


Figure 4: ping between PC2 and Router

Pc3:

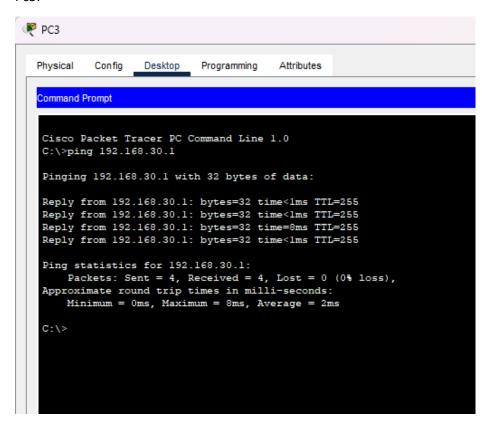


Figure 5: ping between PC3 and Router

Pinging DNS Server from PC1:

```
C:\>ping 192.168.20.254

Pinging 192.168.20.254 with 32 bytes of data:

Reply from 192.168.20.254: bytes=32 time<lms TTL=127

Ping statistics for 192.168.20.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```

Figure 6:Pinging DNS Server from PC1

Pinging Web_Server from PC1:

```
C:\>ping 192.168.40.254

Pinging 192.168.40.254 with 32 bytes of data:

Reply from 192.168.40.254: bytes=32 time<lms TTL=127
Reply from 192.168.40.254: bytes=32 time=lms TTL=127
Reply from 192.168.40.254: bytes=32 time<lms TTL=127
Reply from 192.168.40.254: bytes=32 time<lms TTL=127
Ping statistics for 192.168.40.254:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = lms, Average = 0ms</pre>
```

Figure 7: Pinging Web_Server from PC1

Web Browser from all PCs showing the web page:

Pc1:

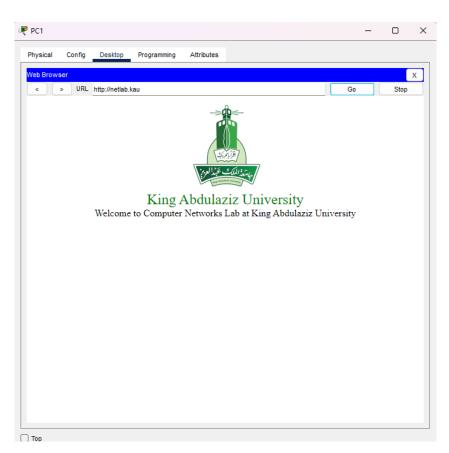


Figure 8:Web Browser PC1 showing the web page

Pc2:

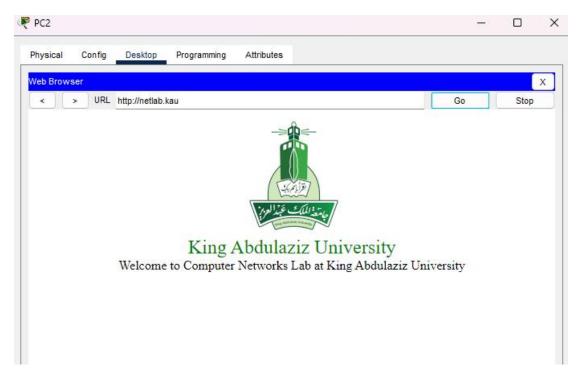


Figure 9: Web Browser PC2 showing the web page