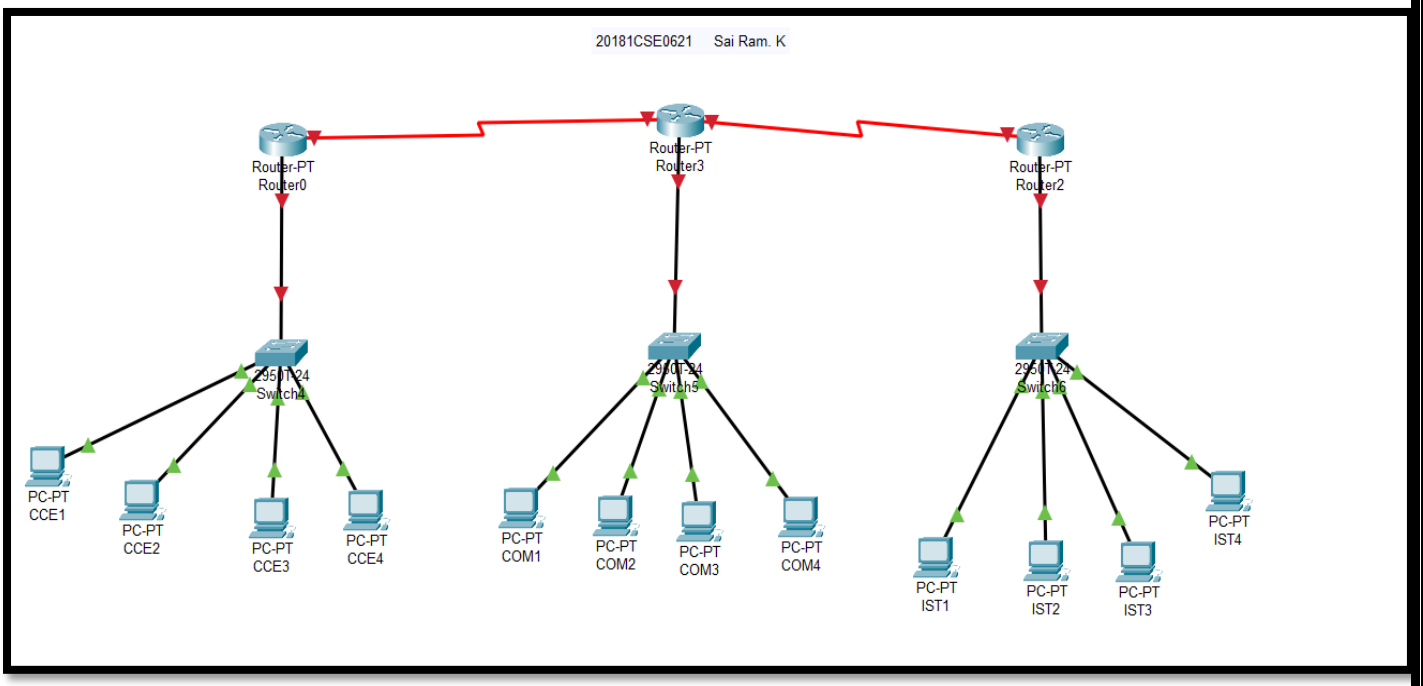
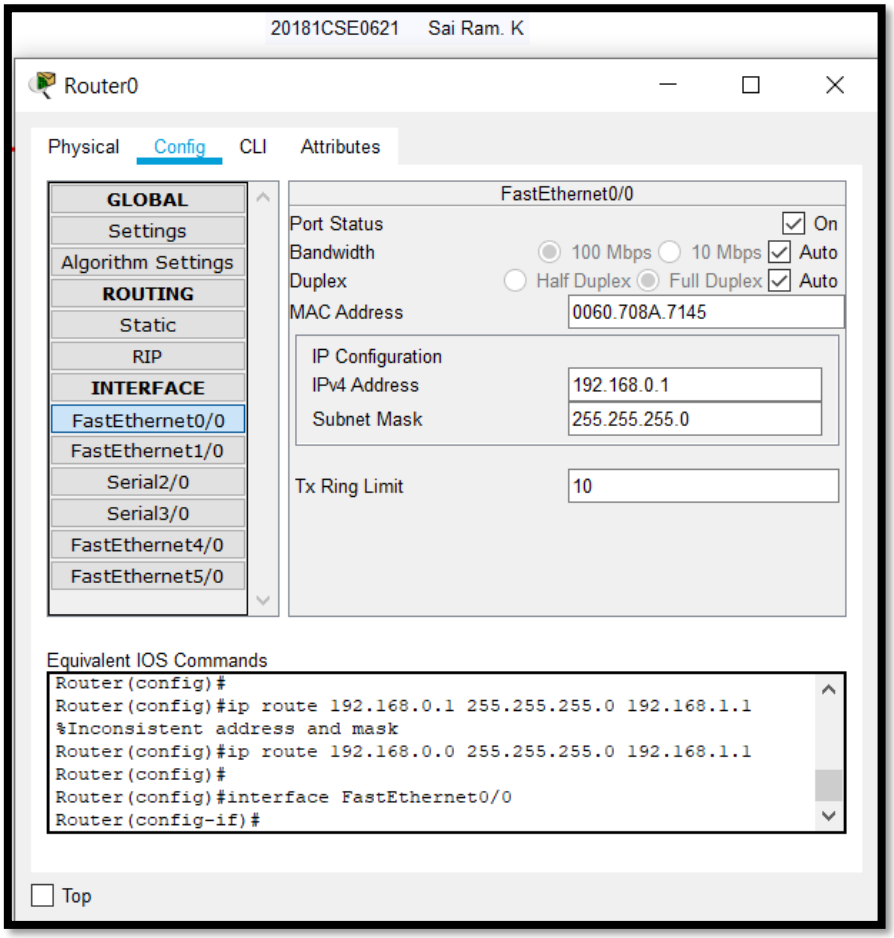
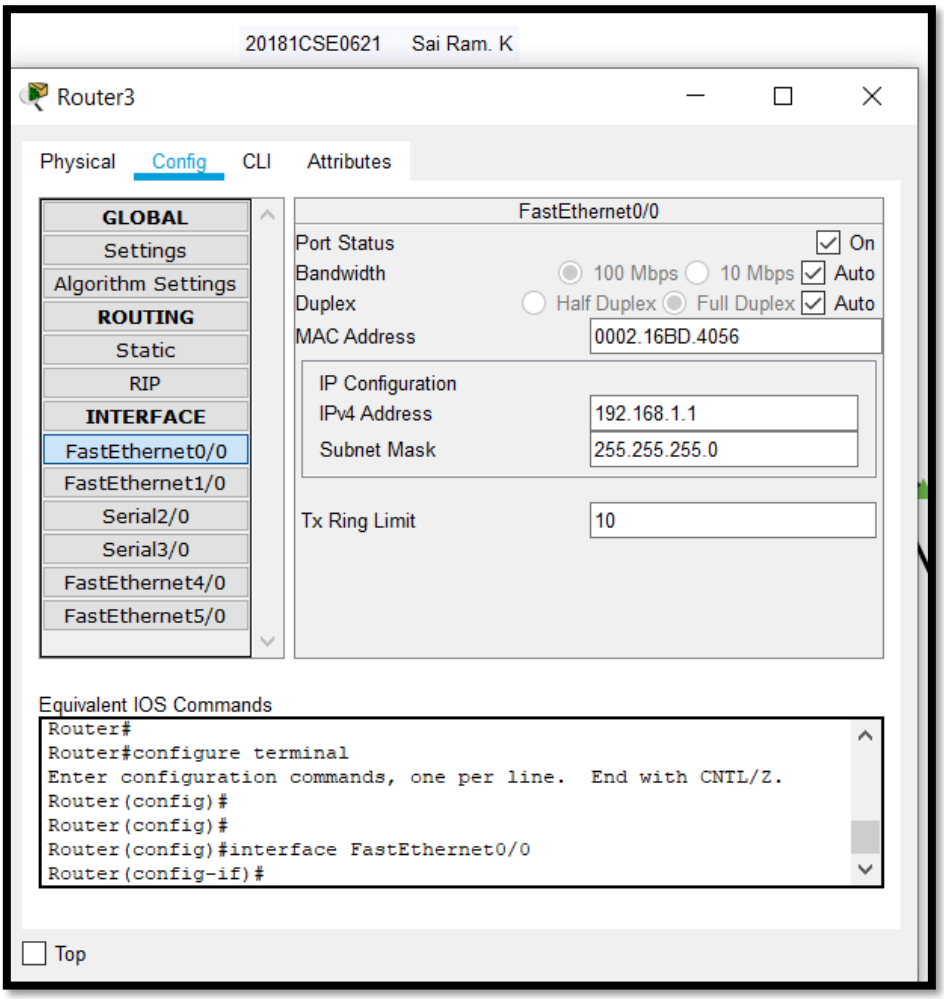
Question: Assume that you're the Network administrator for the ABC company and construct the routing table using static routing. The company has three networks with three routers(PT-Router), three switches(2950T-24) and each switch contains four end PC's. Along with this company manager asked to configure the present time and date, want to display the interfaces.

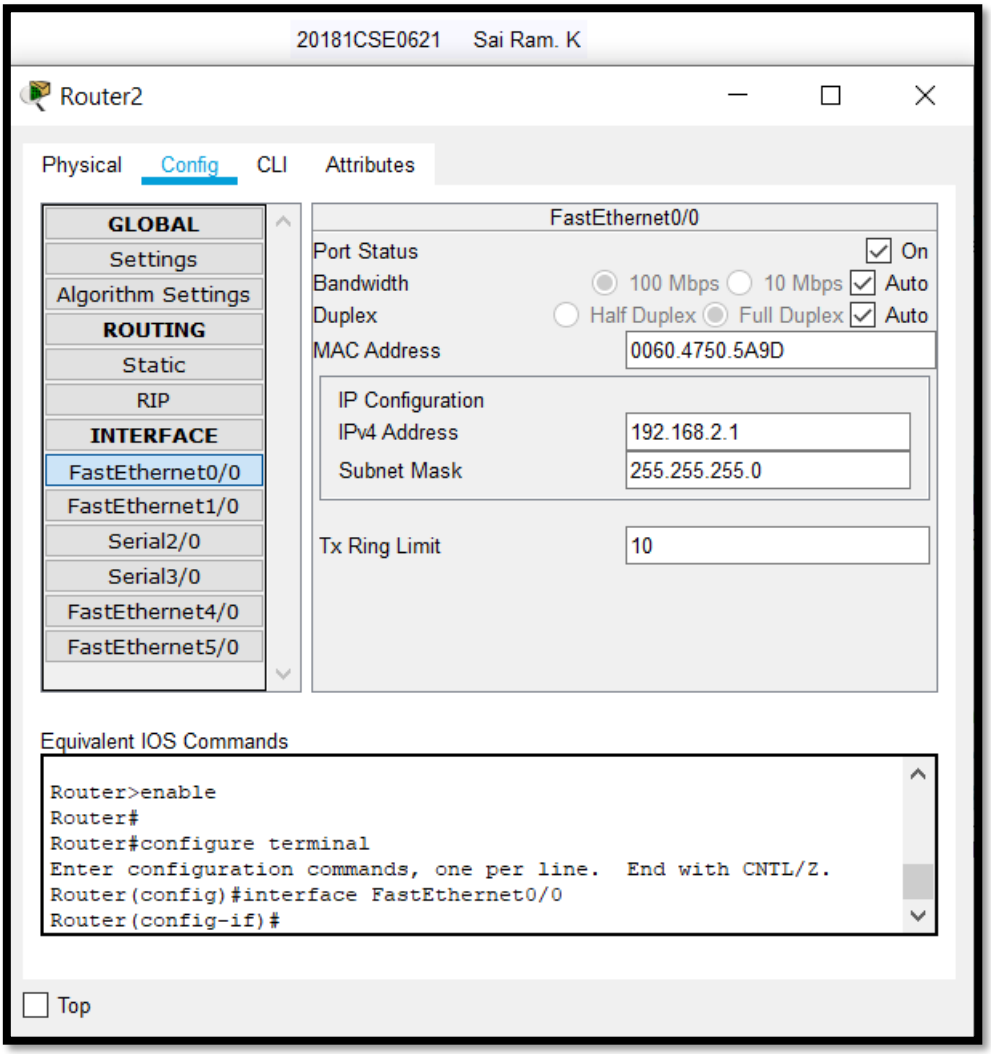
1. Change the name of PC's as CCE1,CCE2, CCE3 and CCE4 for one network, COM1, COM2, COM3 and COM4 for second network and for another network as IST1, IST2, IST3 and IST4.



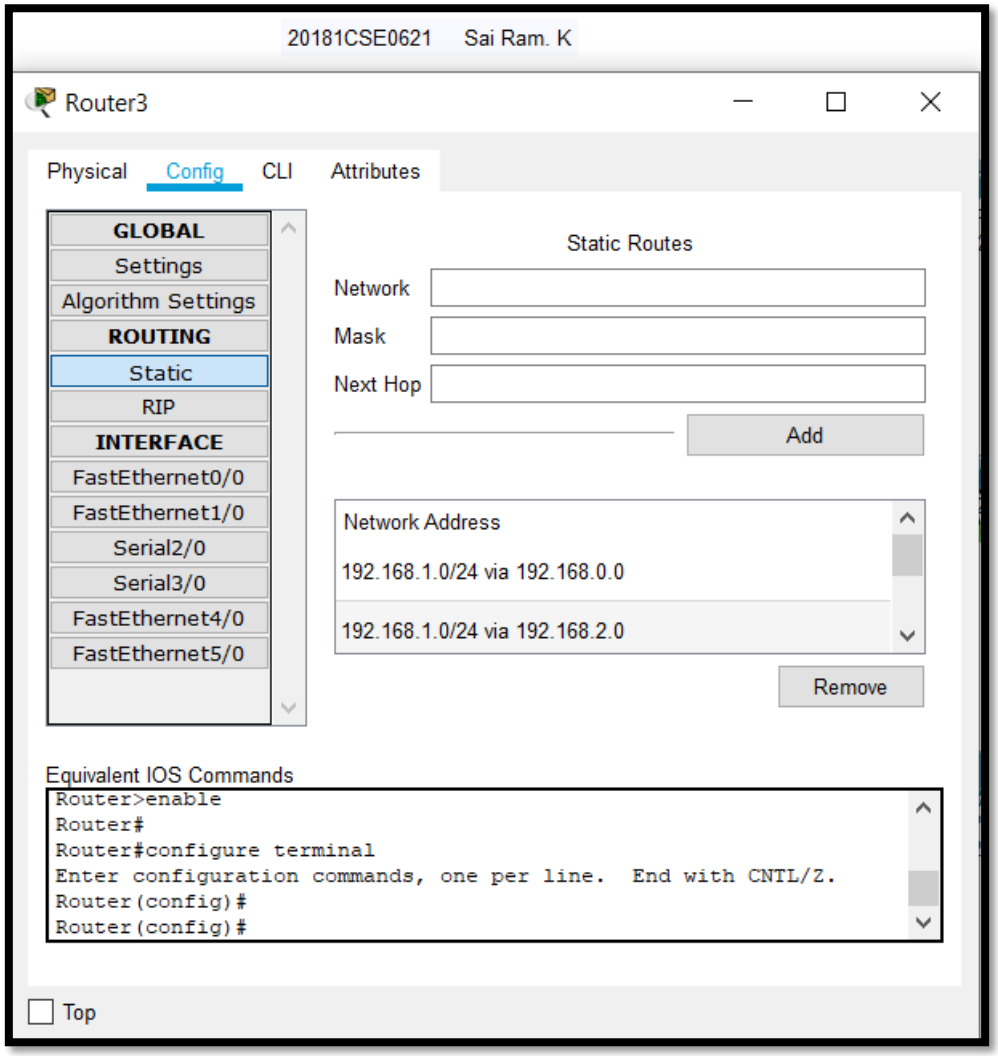
2. Configure the PC's and routers


20181CSE0621 Sai Ram. K
Router0
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
FastEthernet0/0
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
MAC Address
0060.708A.7145
IP Configuration
IPv4 Address
192.168.0.1
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Equivalent IOS Commands
Router(config)#
Router(config)#ip route 192.168.0.1 255.255.255.0 192.168.1.1
%Inconsistent address and mask
Router(config)#ip route 192.168.0.0 255.255.255.0 192.168.1.1
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
Top

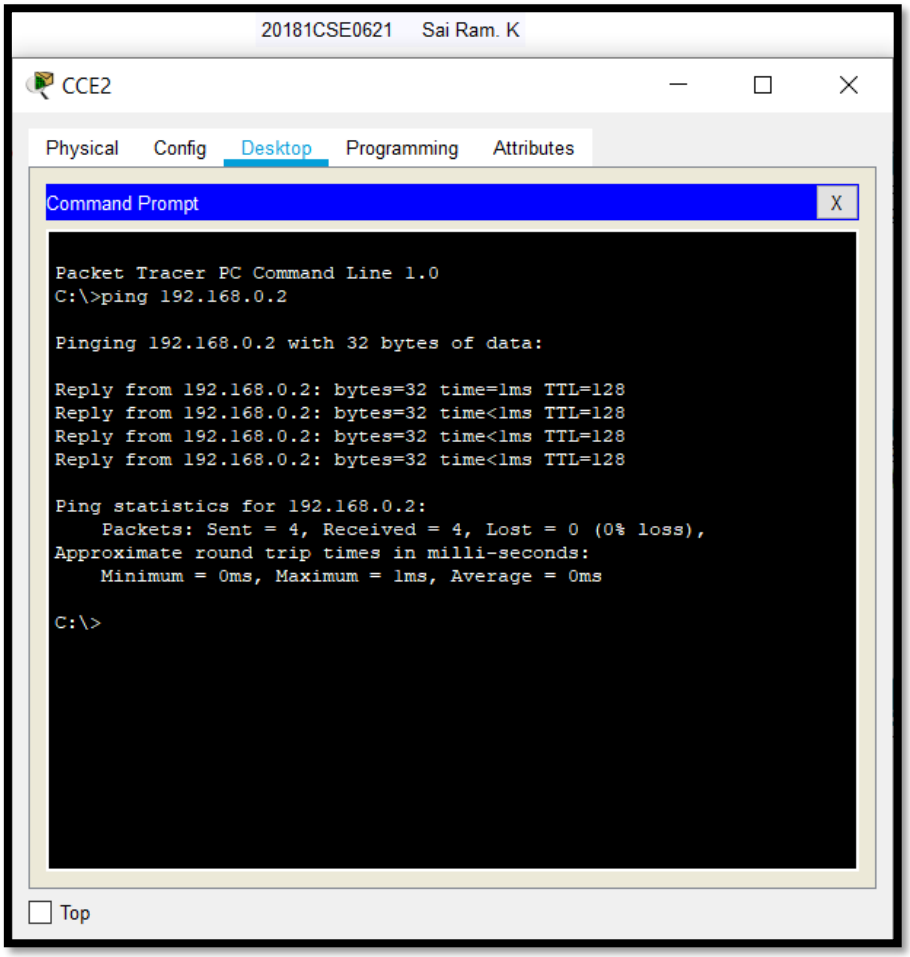

20181CSE0621 Sai Ram. K
Router3
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
INTERFACE
FastEthernet0/0
FastEthernet1/0
Serial2/0
Serial3/0
FastEthernet4/0
FastEthernet5/0
FastEthernet0/0
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
MAC Address
0002.16BD.4056
IP Configuration
IPv4 Address
192.168.1.1
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Equivalent IOS Commands
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)#
Router(config)#interface FastEthernet0/0
Router(config-if)#
Top

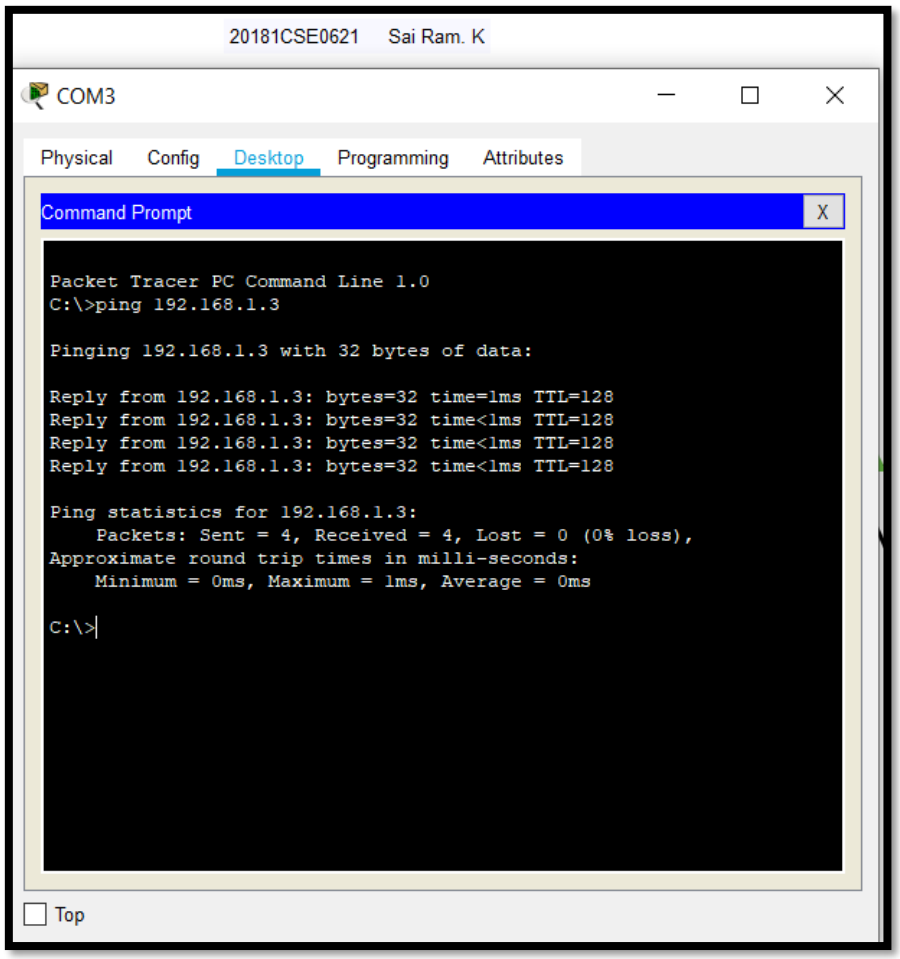


3. As a network administrator, add entries into a routing table manually for all the routers with the proper network interfaces



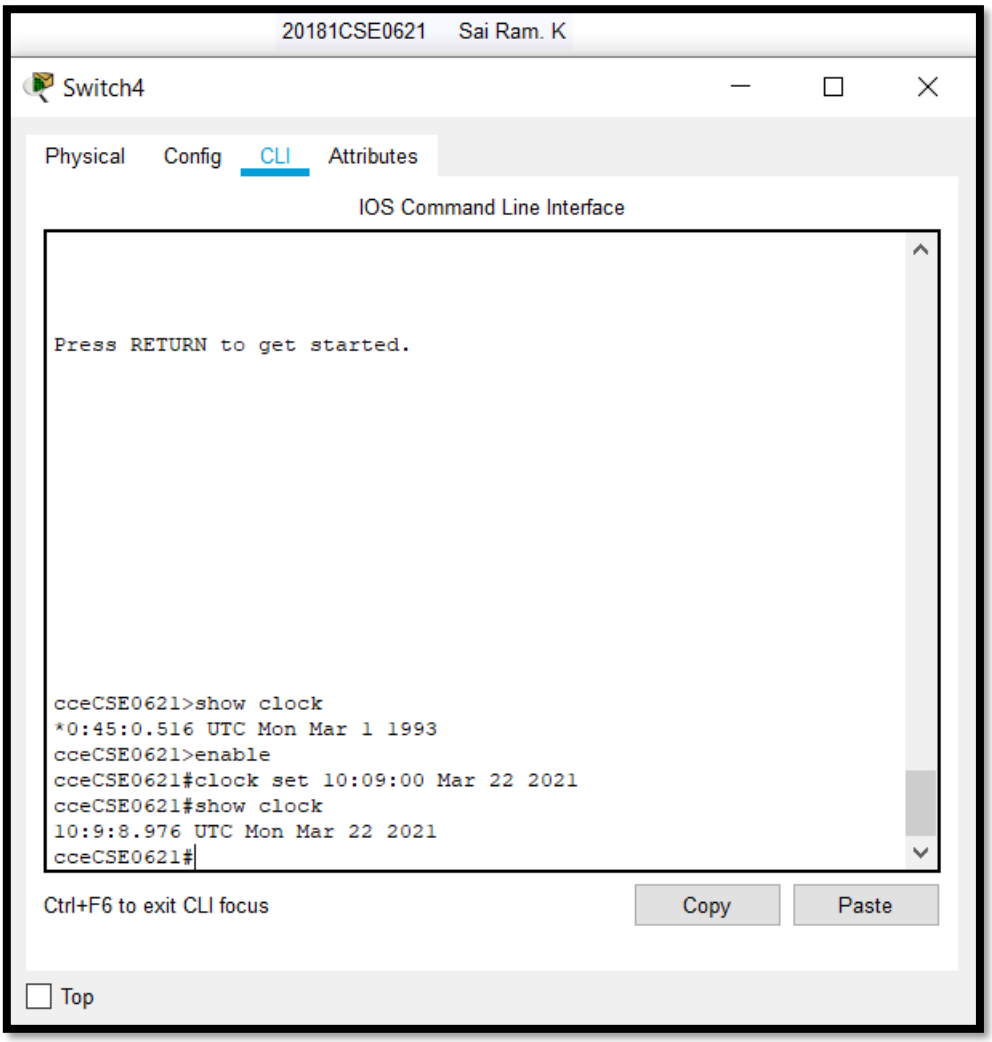
4.Send the packets between two networks


20181CSE0621 Sai Ram. K
CCE2
Physical Config Desktop Programming Attributes
Command Prompt
X
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.2
Pinging 192.168.0.2 with 32 bytes of data:
Reply from 192.168.0.2: bytes=32 time=1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.0.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
Top

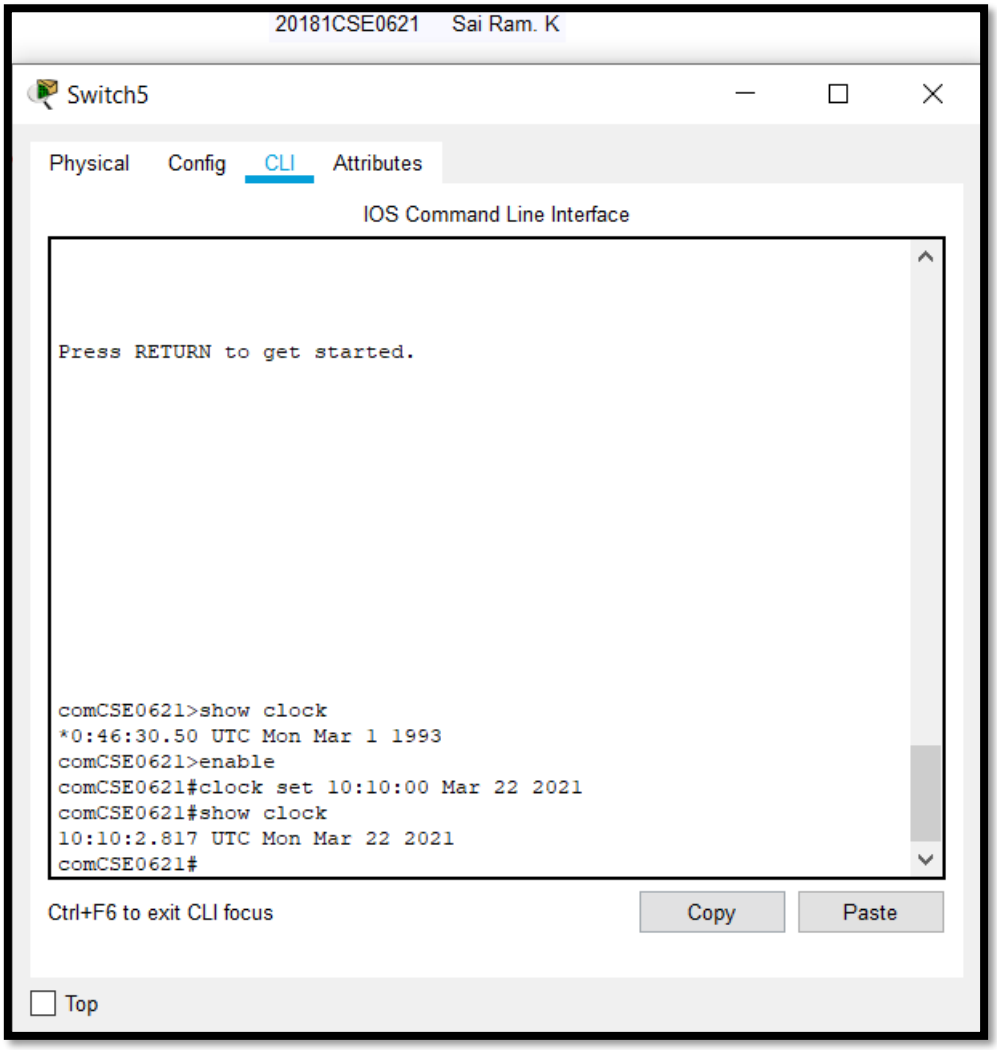

20181CSE0621 Sai Ram. K
COM3
Physical Config Desktop Programming Attributes
Command Prompt
X
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.3
Pinging 192.168.1.3 with 32 bytes of data:
Reply from 192.168.1.3: bytes=32 time=1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.1.3:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
Top

5.Configure the clock with present date and time

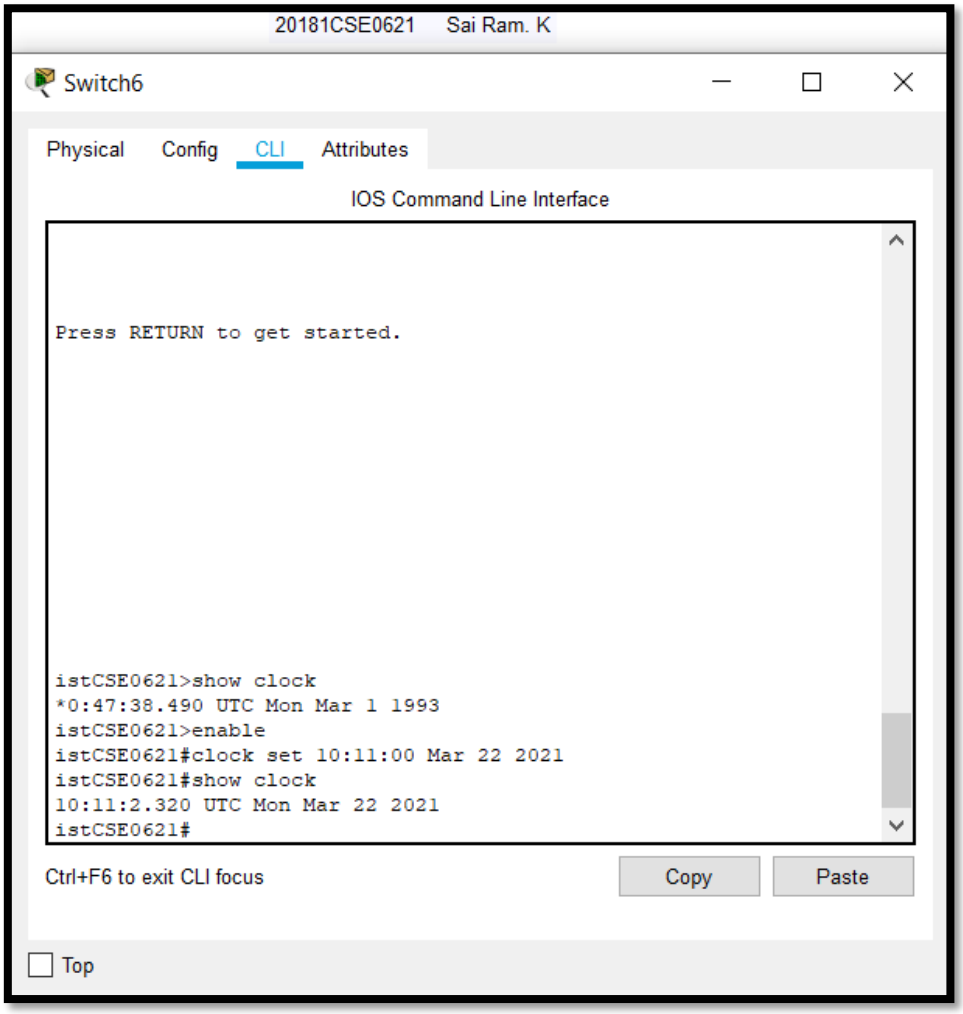
Switch 1.



Switch 2.

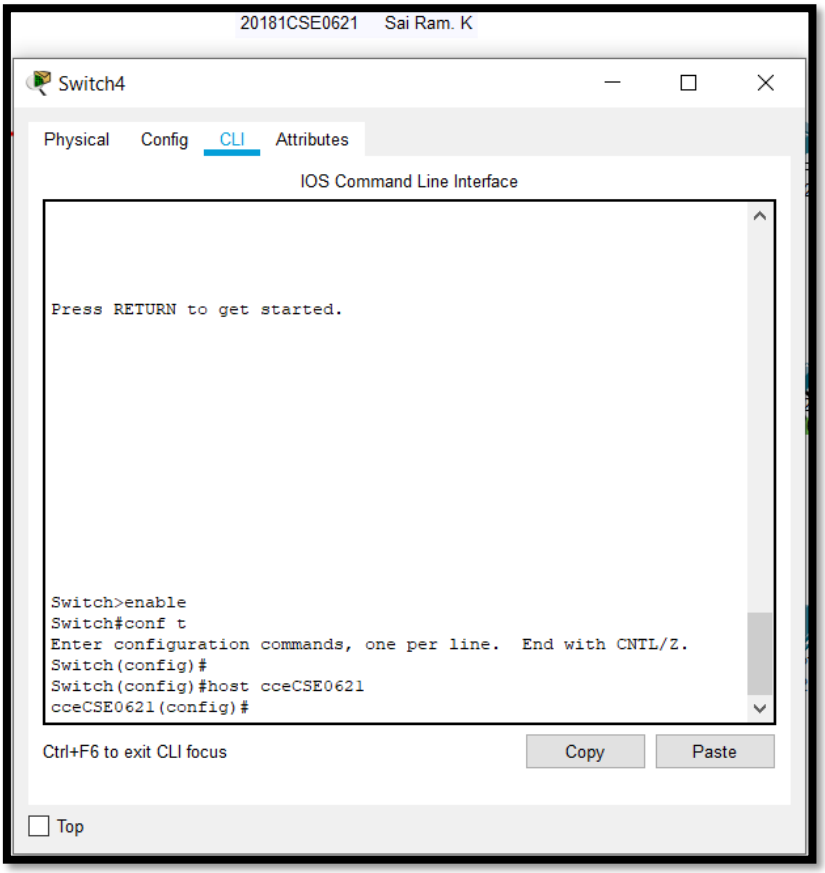

20181CSE0621 Sai Ram. K
Switch5
Physical
Config
CLI
Attributes
IOS Command Line Interface
Press RETURN to get started.
comCSE0621>show clock
*0:46:30.50 UTC Mon Mar 1 1993
comCSE0621>enable
comCSE0621#clock set 10:10:00 Mar 22 2021
comCSE0621#show clock
10:10:2.817 UTC Mon Mar 22 2021
comCSE0621#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

Switch 3.

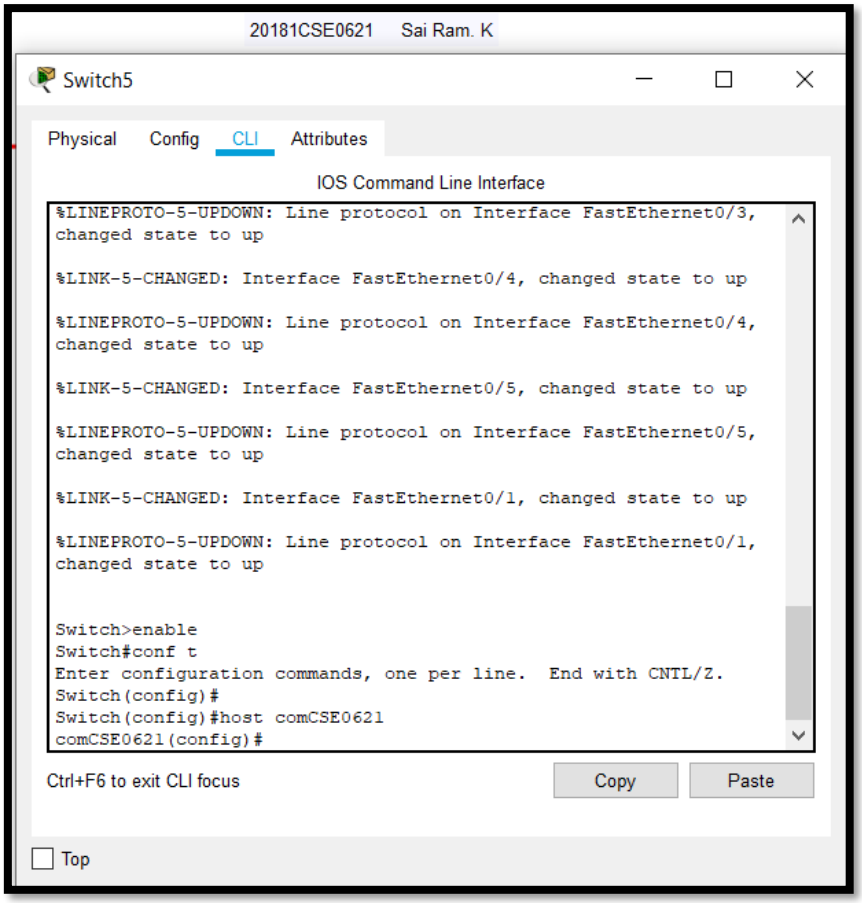


6. Set the hostname of three switches as CCE, COM and IST followed by Rollno

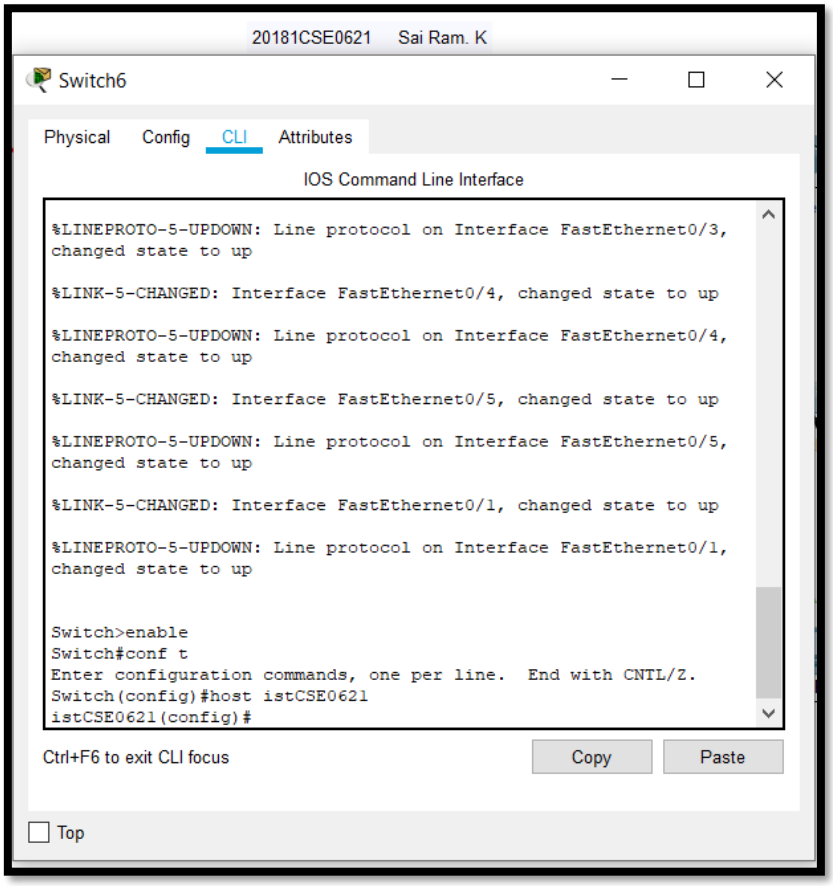
Switch 1.



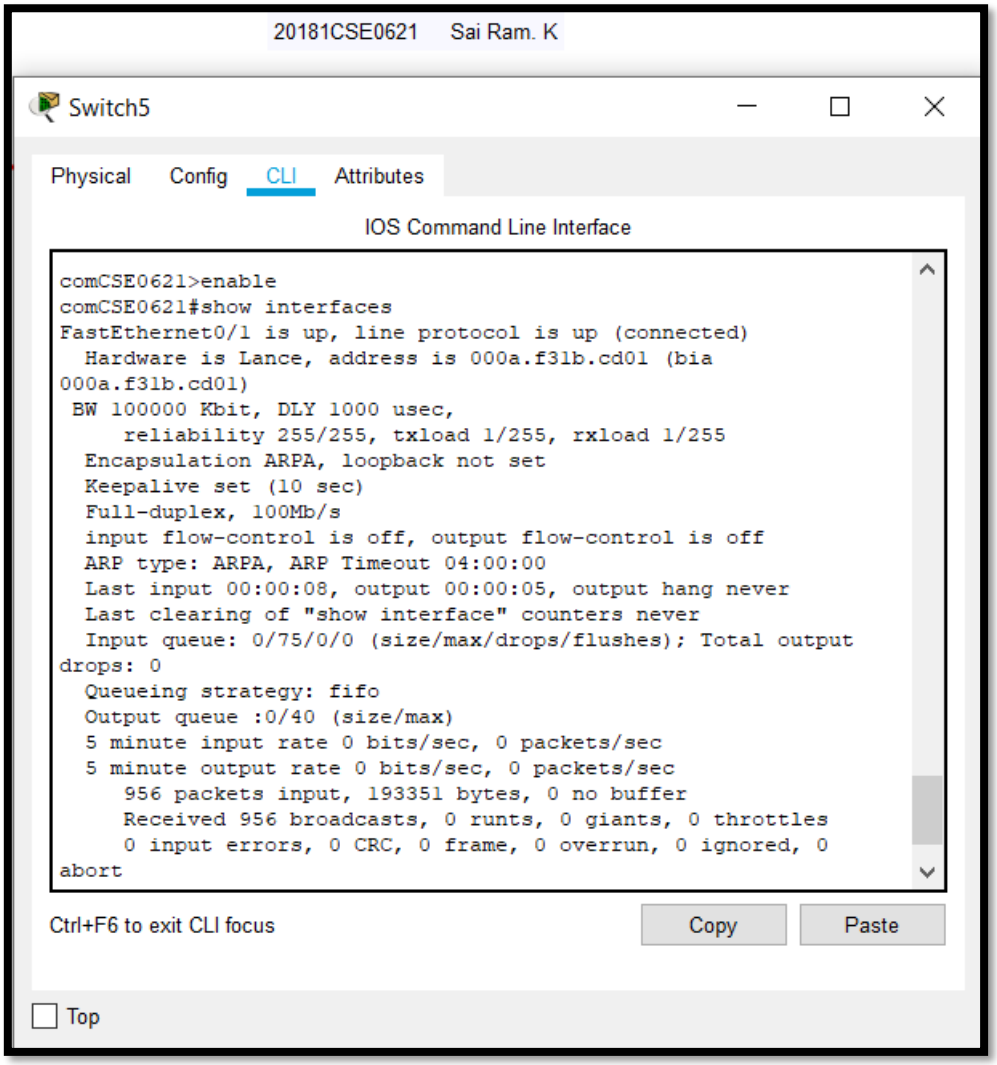
Switch 2.



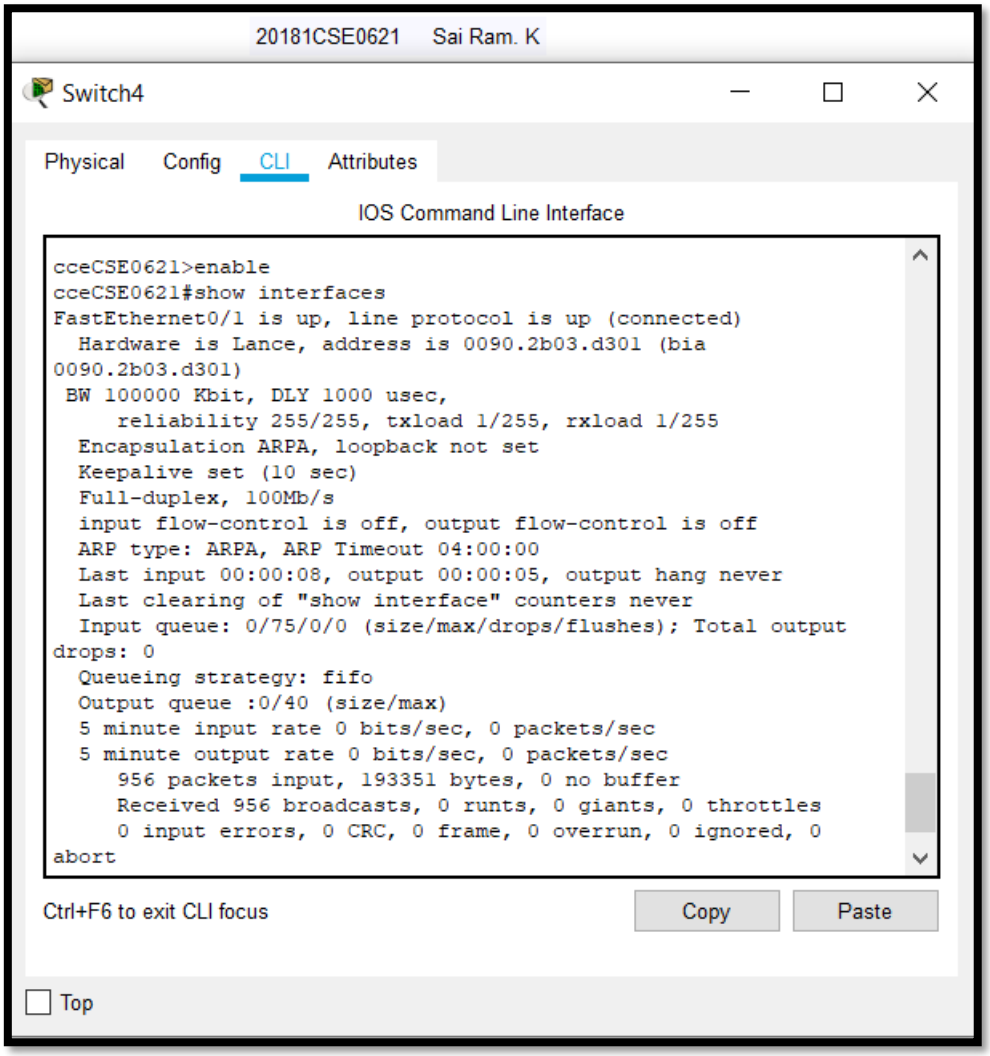
Switch 3.



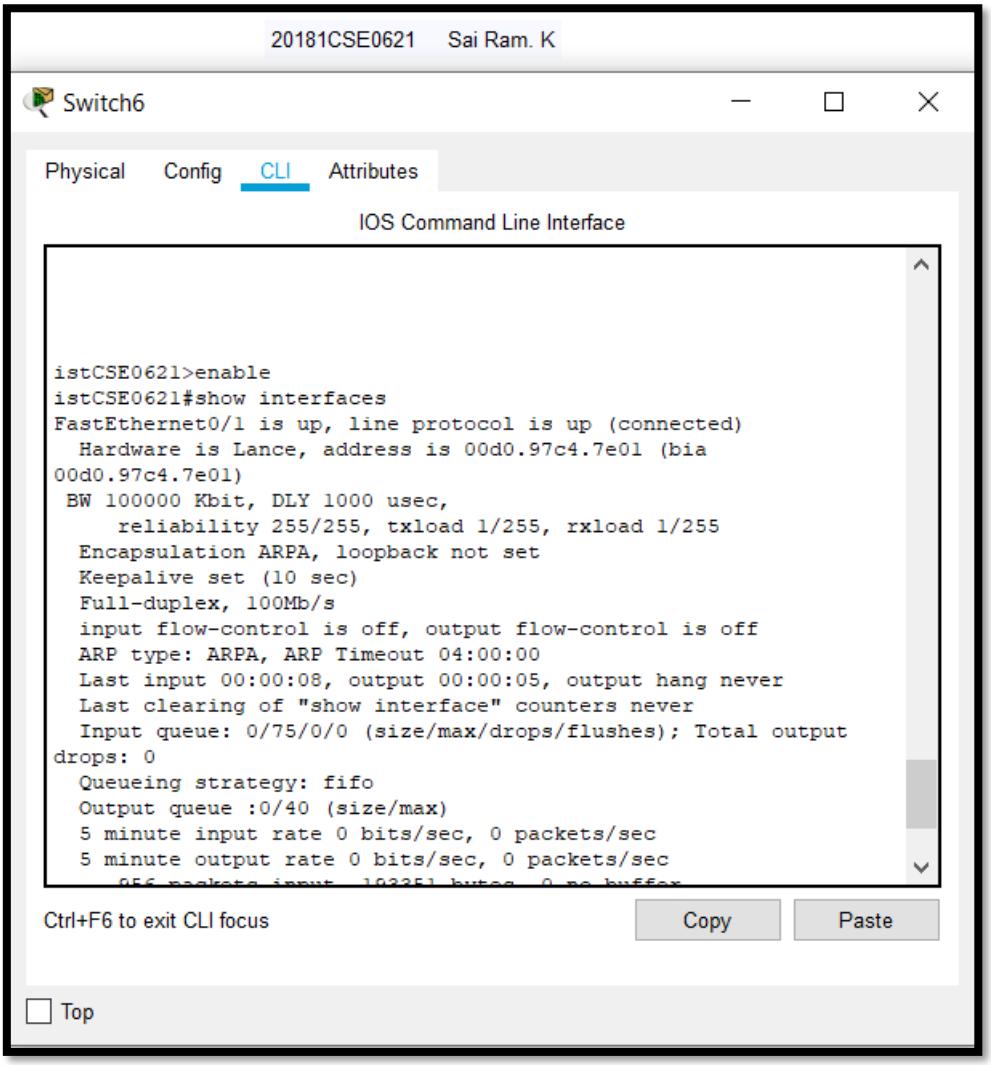
7.Show the interfaces information for all the PC's Switch 2.


20181CSE0621 Sai Ram. K
Switch5
Physical
Config
CLI
Attributes
IOS Command Line Interface
comCSE0621>enable
comCSE0621#show interfaces
FastEthernet0/1 is up, line protocol is up (connected)
Hardware is Lance, address is 000a.f31b.cd01 (bia
000a.f31b.cd01)
BW 100000 Kbit, DLY 1000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Full-duplex, 100Mb/s
input flow-control is off, output flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:08, output 00:00:05, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output
drops: 0
Queueing strategy: fifo
Output queue :0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
956 packets input, 193351 bytes, 0 no buffer
Received 956 broadcasts, 0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0
abort
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

Switch 1.


20181CSE0621 Sai Ram. K
Switch4
Physical
Config
CLI
Attributes
IOS Command Line Interface
cceCSE0621>enable
cceCSE0621#show interfaces
FastEthernet0/1 is up, line protocol is up (connected)
Hardware is Lance, address is 0090.2b03.d301 (bia
0090.2b03.d301)
BW 100000 Kbit, DLY 1000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Full-duplex, 100Mb/s
input flow-control is off, output flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:08, output 00:00:05, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output
drops: 0
Queueing strategy: fifo
Output queue :0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
956 packets input, 193351 bytes, 0 no buffer
Received 956 broadcasts, 0 runts, 0 giants, 0 throttles
0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0
abort
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

Switch 3.


20181CSE0621 Sai Ram. K
Switch6
Physical
Config
CLI
Attributes
IOS Command Line Interface
istCSE0621>enable
istCSE0621#show interfaces
FastEthernet0/1 is up, line protocol is up (connected)
Hardware is Lance, address is 00d0.97c4.7e01 (bia
00d0.97c4.7e01)
BW 100000 Kbit, DLY 1000 usec,
reliability 255/255, txload 1/255, rxload 1/255
Encapsulation ARPA, loopback not set
Keepalive set (10 sec)
Full-duplex, 100Mb/s
input flow-control is off, output flow-control is off
ARP type: ARPA, ARP Timeout 04:00:00
Last input 00:00:08, output 00:00:05, output hang never
Last clearing of "show interface" counters never
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output
drops: 0
Queueing strategy: fifo
Output queue :0/40 (size/max)
5 minute input rate 0 bits/sec, 0 packets/sec
5 minute output rate 0 bits/sec, 0 packets/sec
Ctrl+F6 to exit CLI focus
Copy
Paste
Top