Date : 01/10/2022
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Course Code and Name : Computer Networks (2CS502)
Experiment No : 5

- **Aim:** Virtual LAN: Simulate Virtual LAN configuration using CISCO Packet Tracer Simulation.

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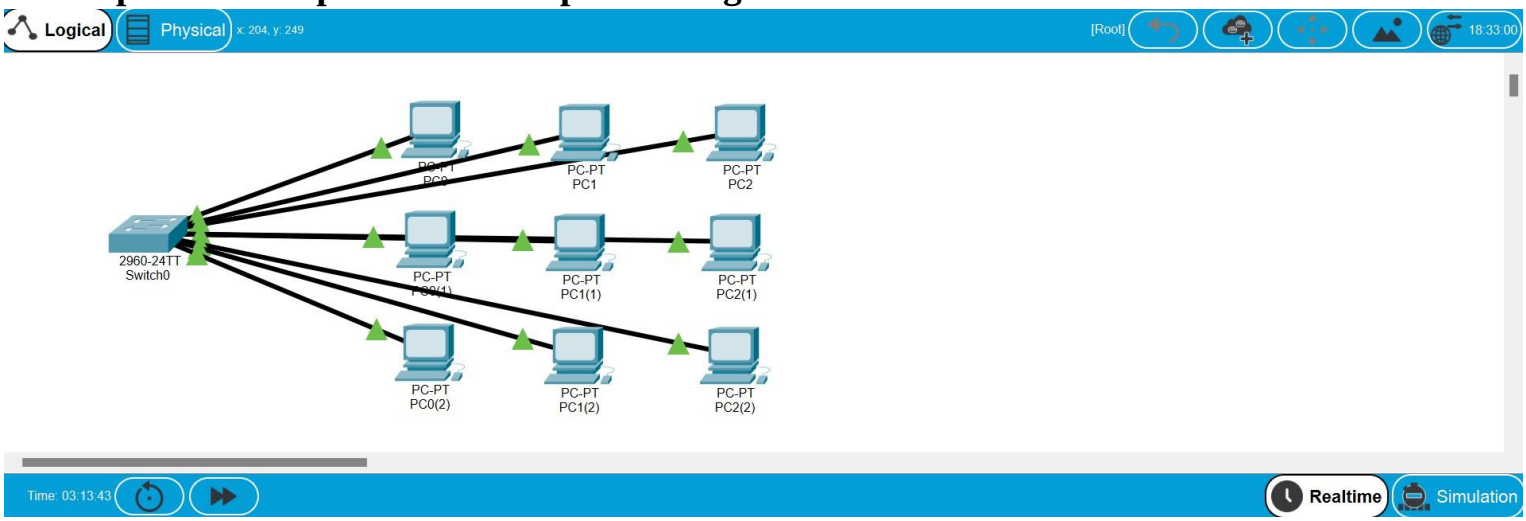
1. Implement Simple Switch-computer using Cisco Packet Tracer



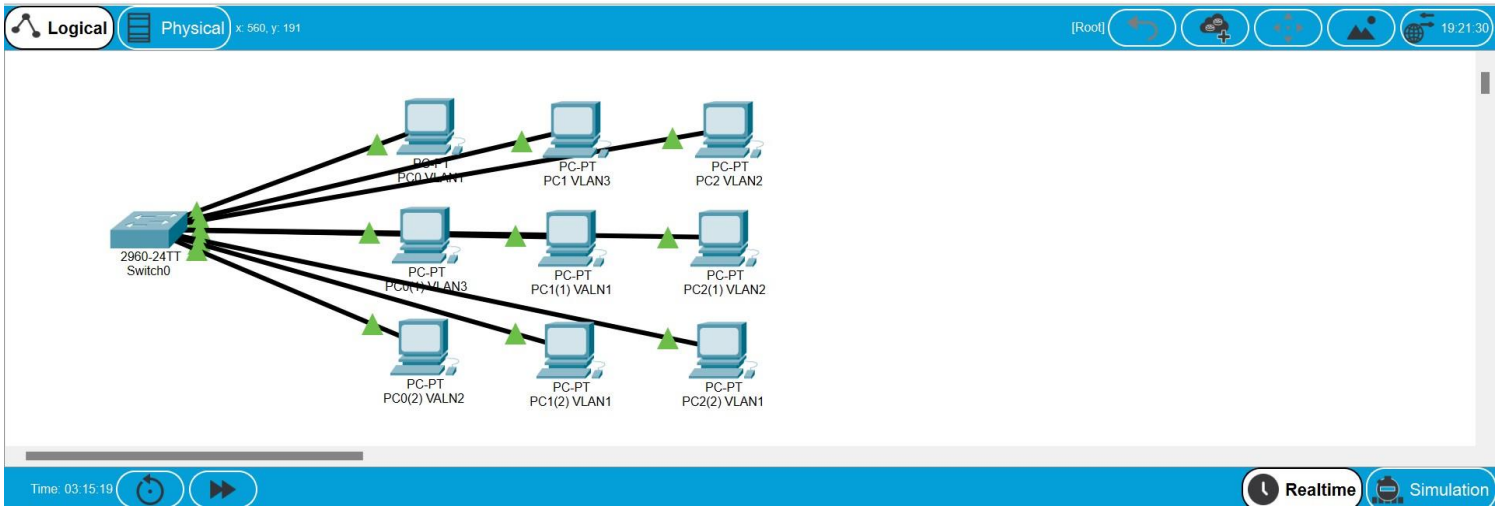
2. Simulation

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodi
	Successful	PC0	PC2(1)	IC...		0.000	N

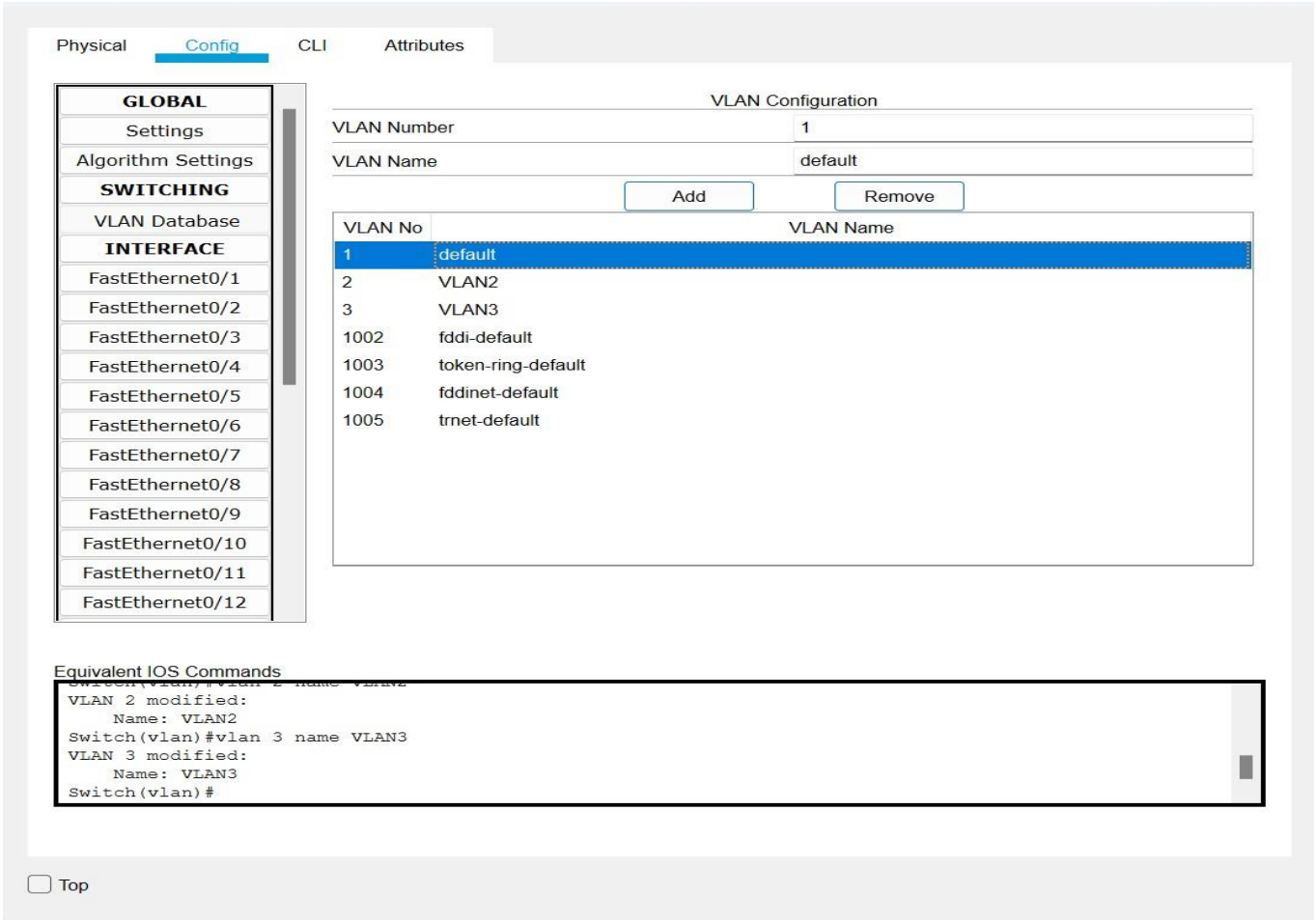
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodi
	Successful	PC0	PC2(1)	IC...		0.000	N
	Successful	PC0(2)	PC2(2)	IC...		0.000	N

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodi
	Successful	PC0	PC2(1)	IC...		0.000	N
	Successful	PC0(2)	PC2(2)	IC...		0.000	N
	Successful	PC0(2)	PC2	IC...		0.000	N

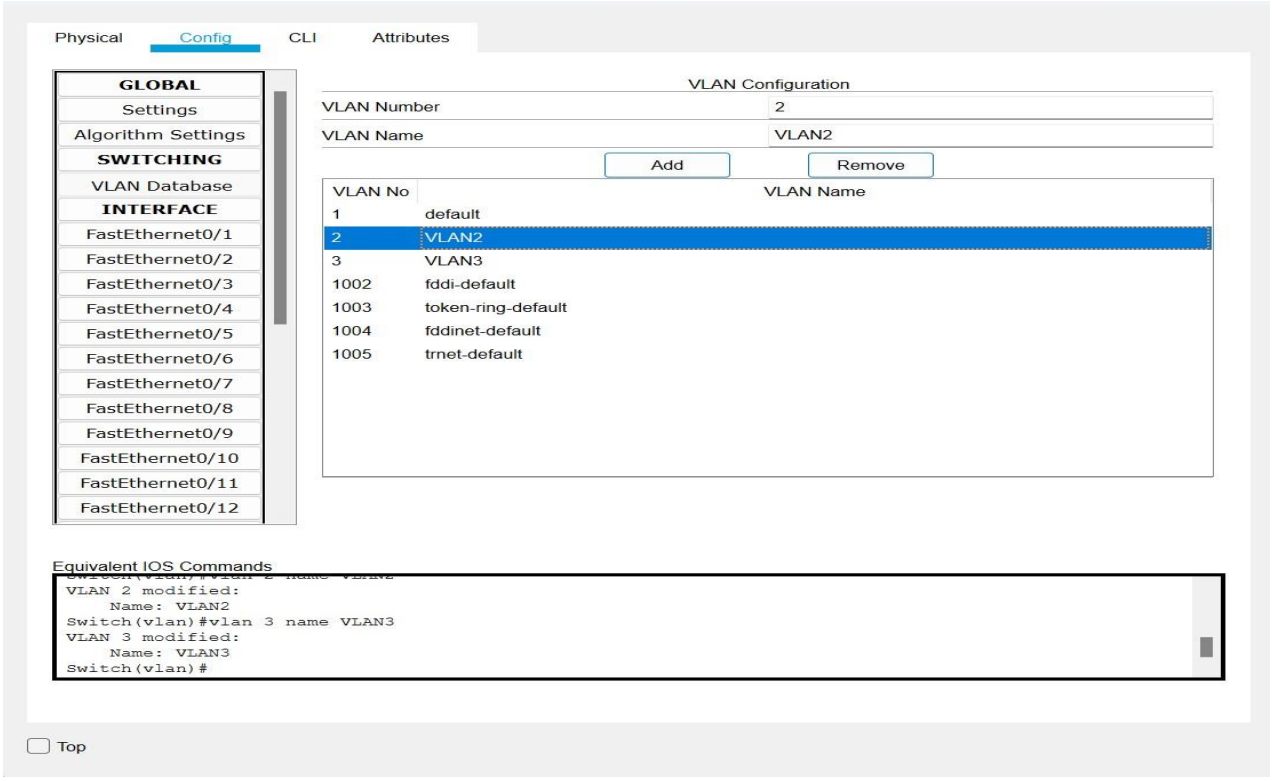
3. Now, we'll apply VLAN in database



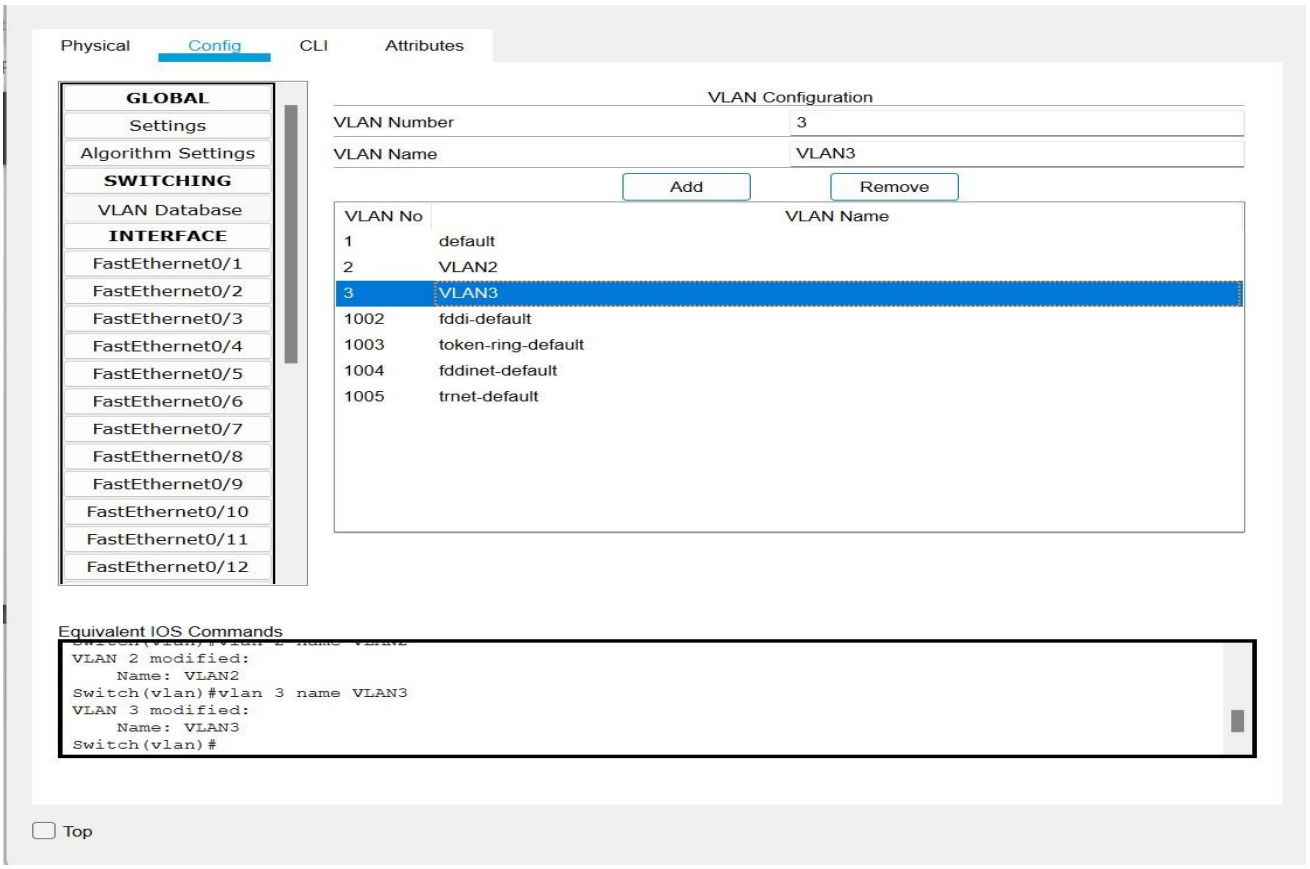
i) VLAN1 (Default)



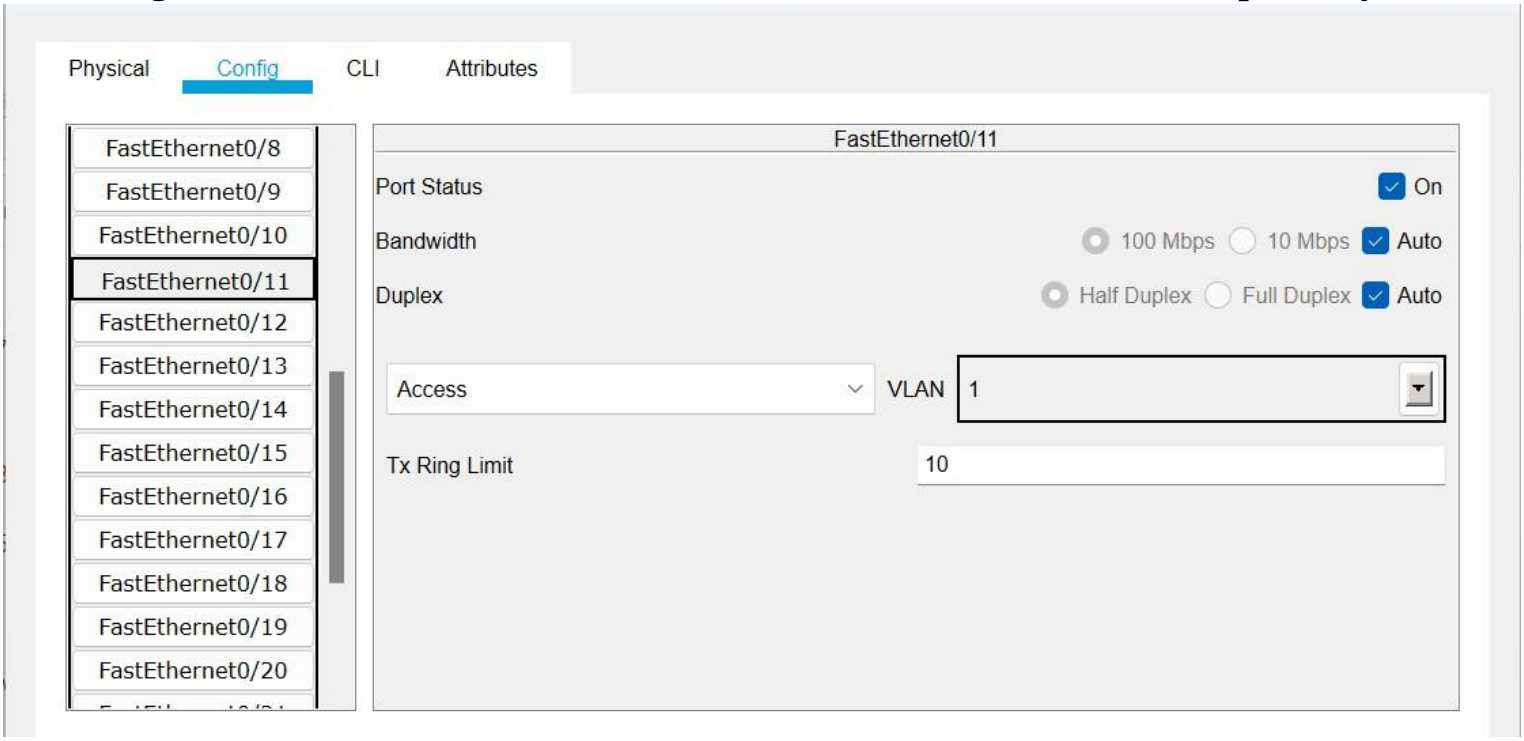
ii)VLAN2

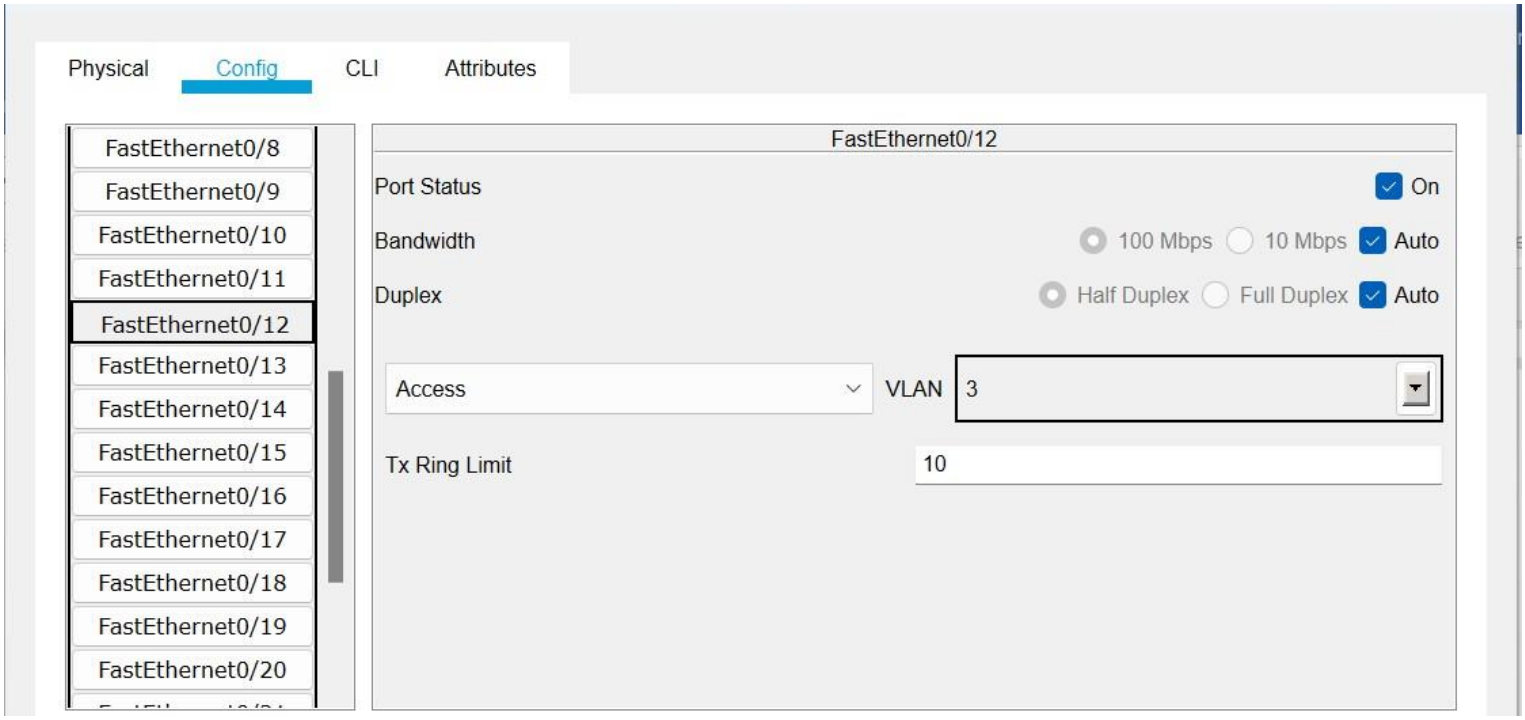


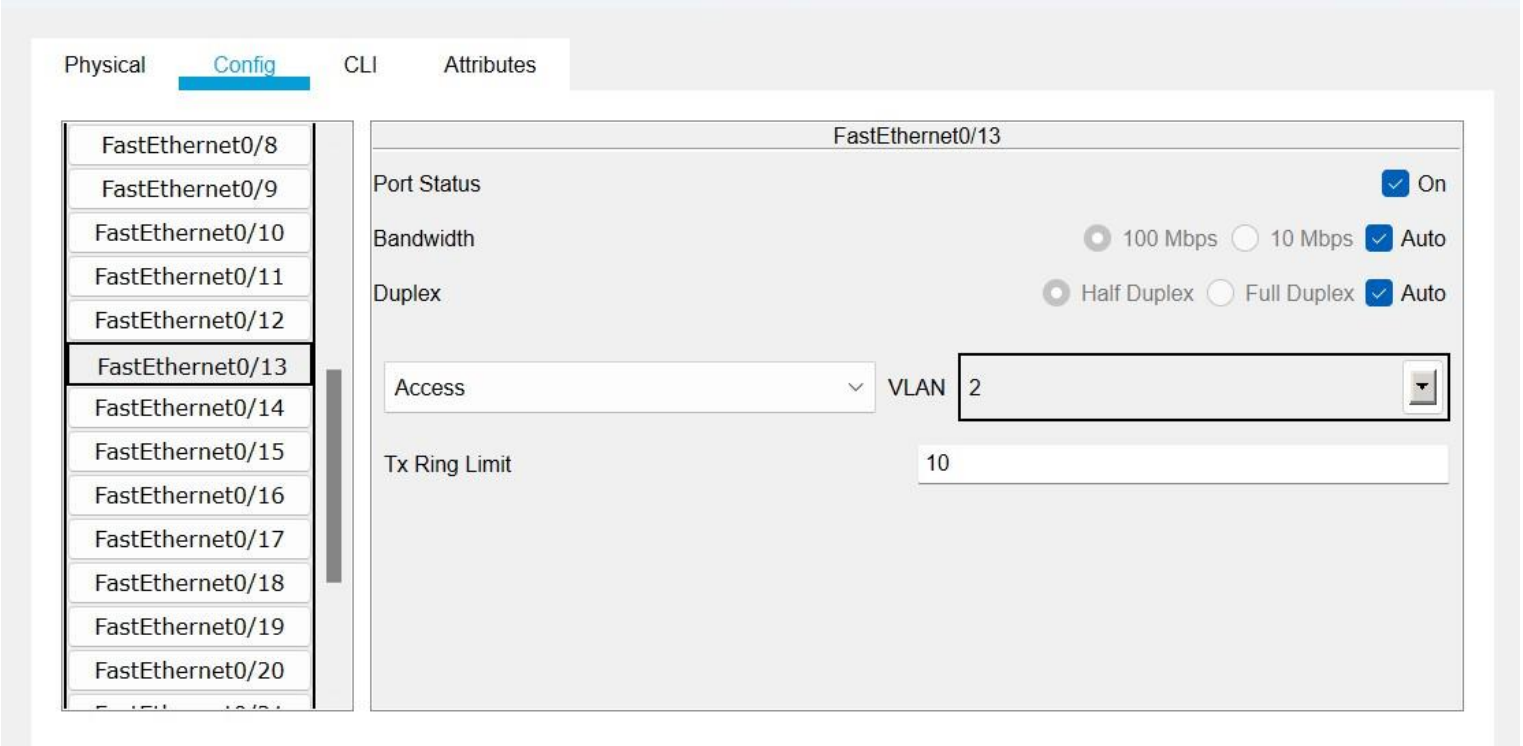
iii)VLAN3



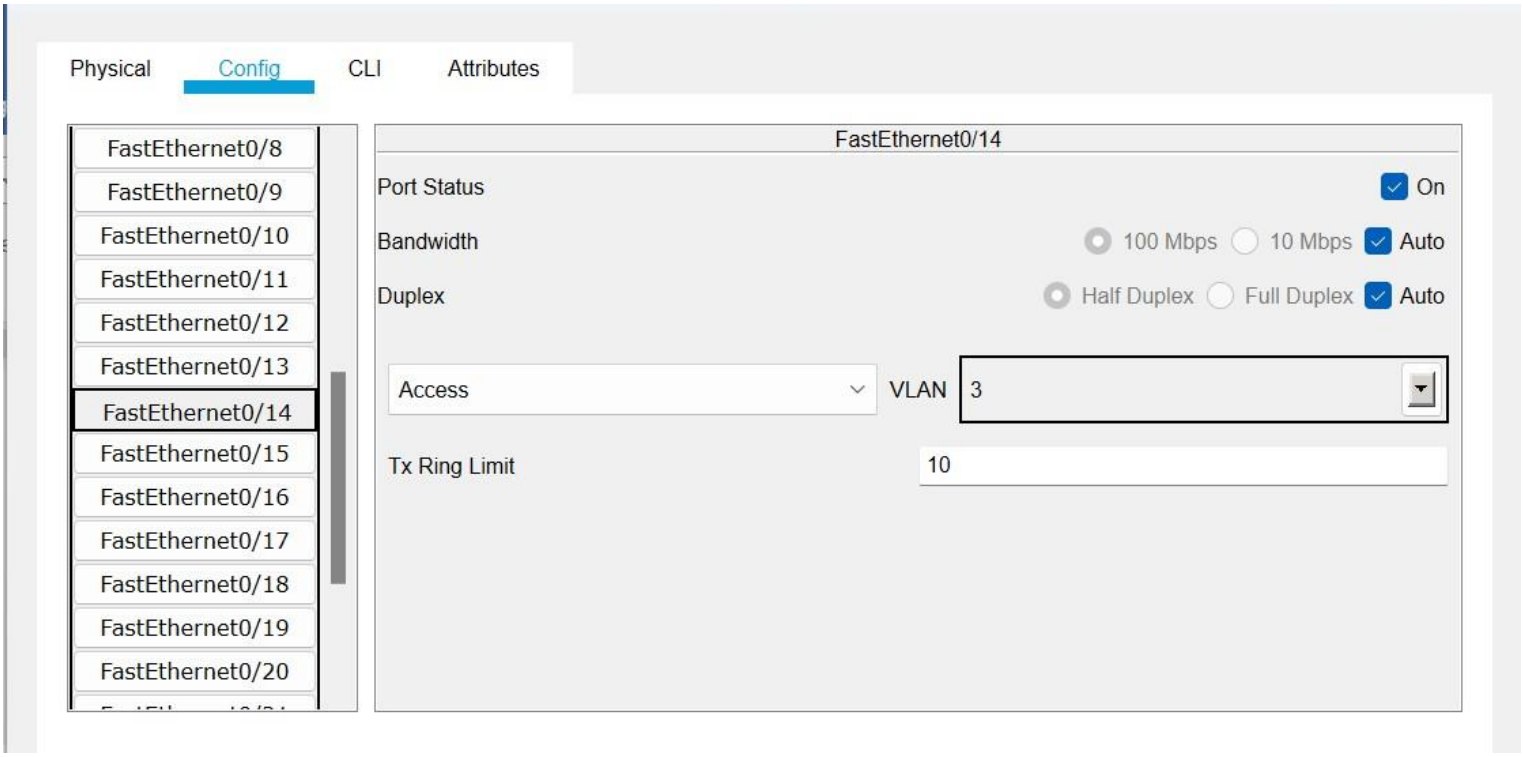
4. change Ethernet1, Ethernet2, Ethernet3 to VLAN1, VLAN3, VLAN2 Respectively.

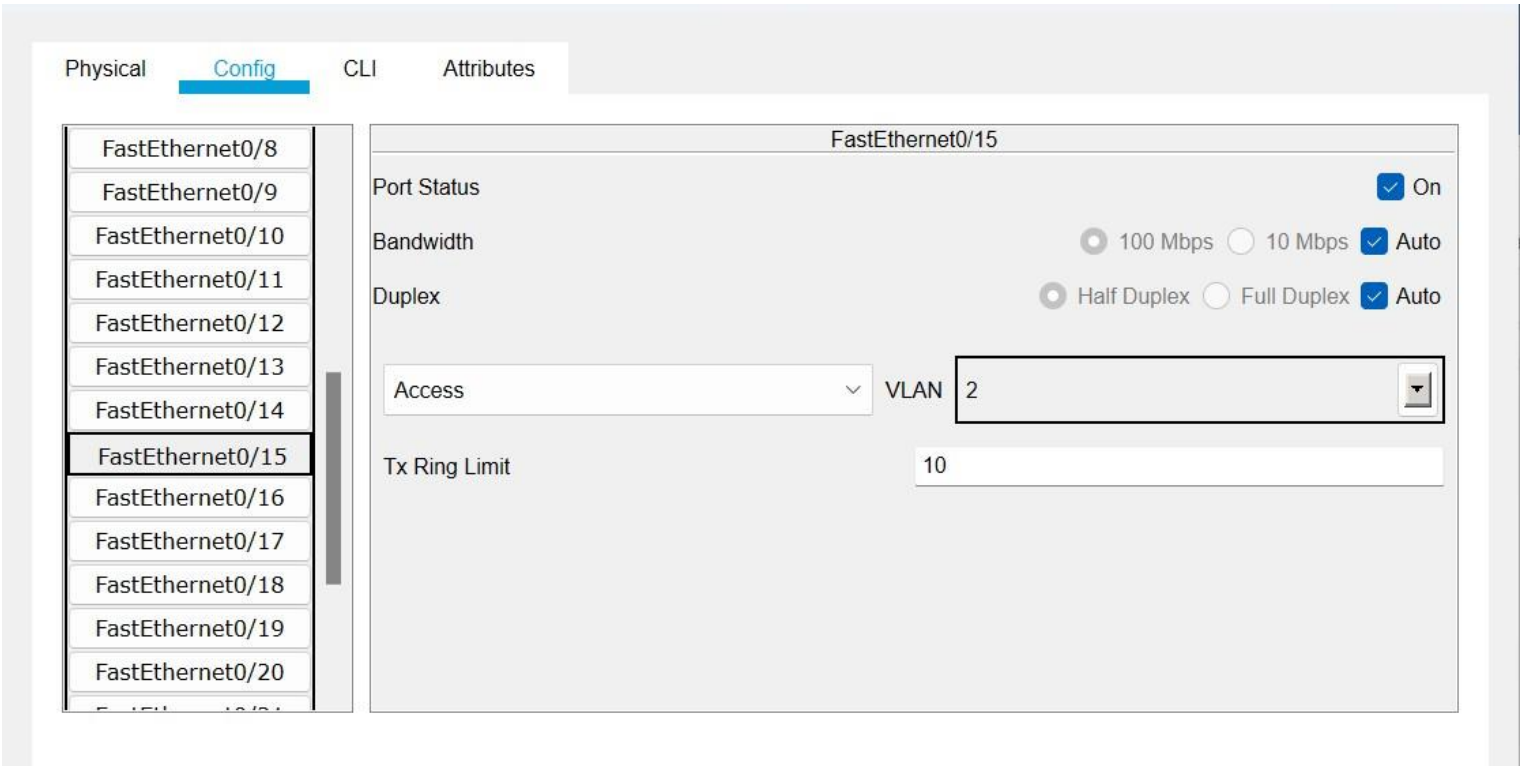


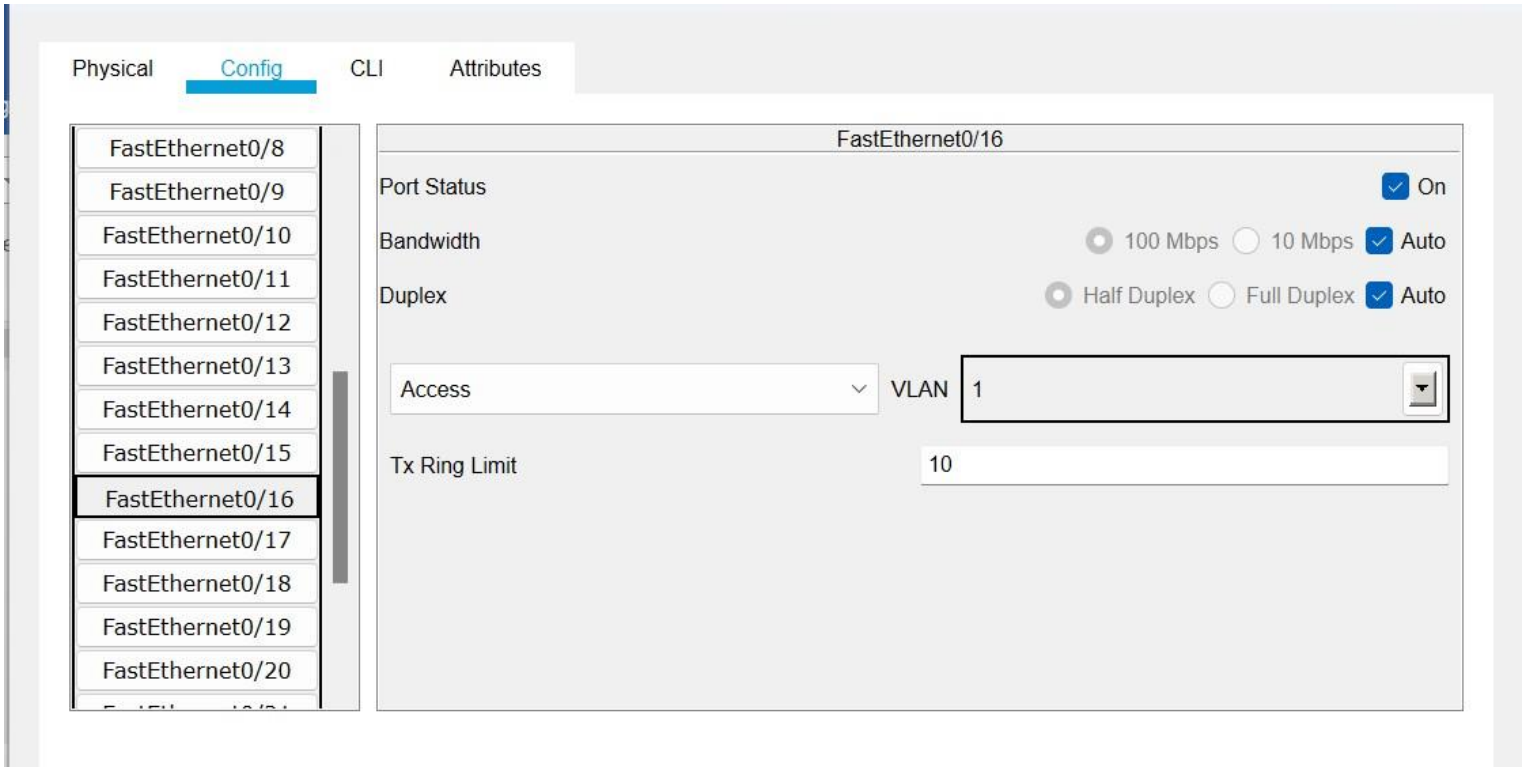




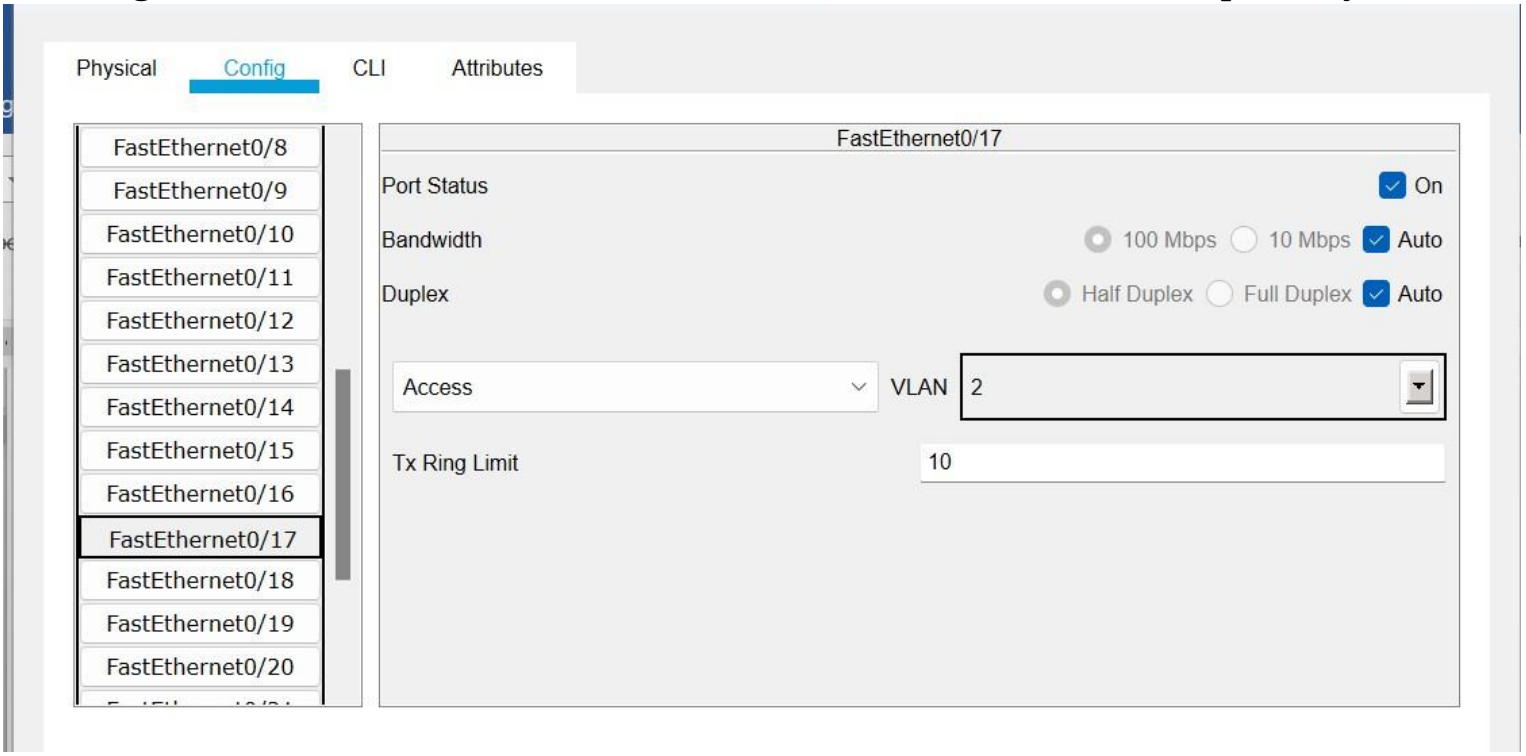
5. change Ethernet4, Ethernet5, Ethernet6 to VLAN3, VLAN1, VLAN2 Respectively.

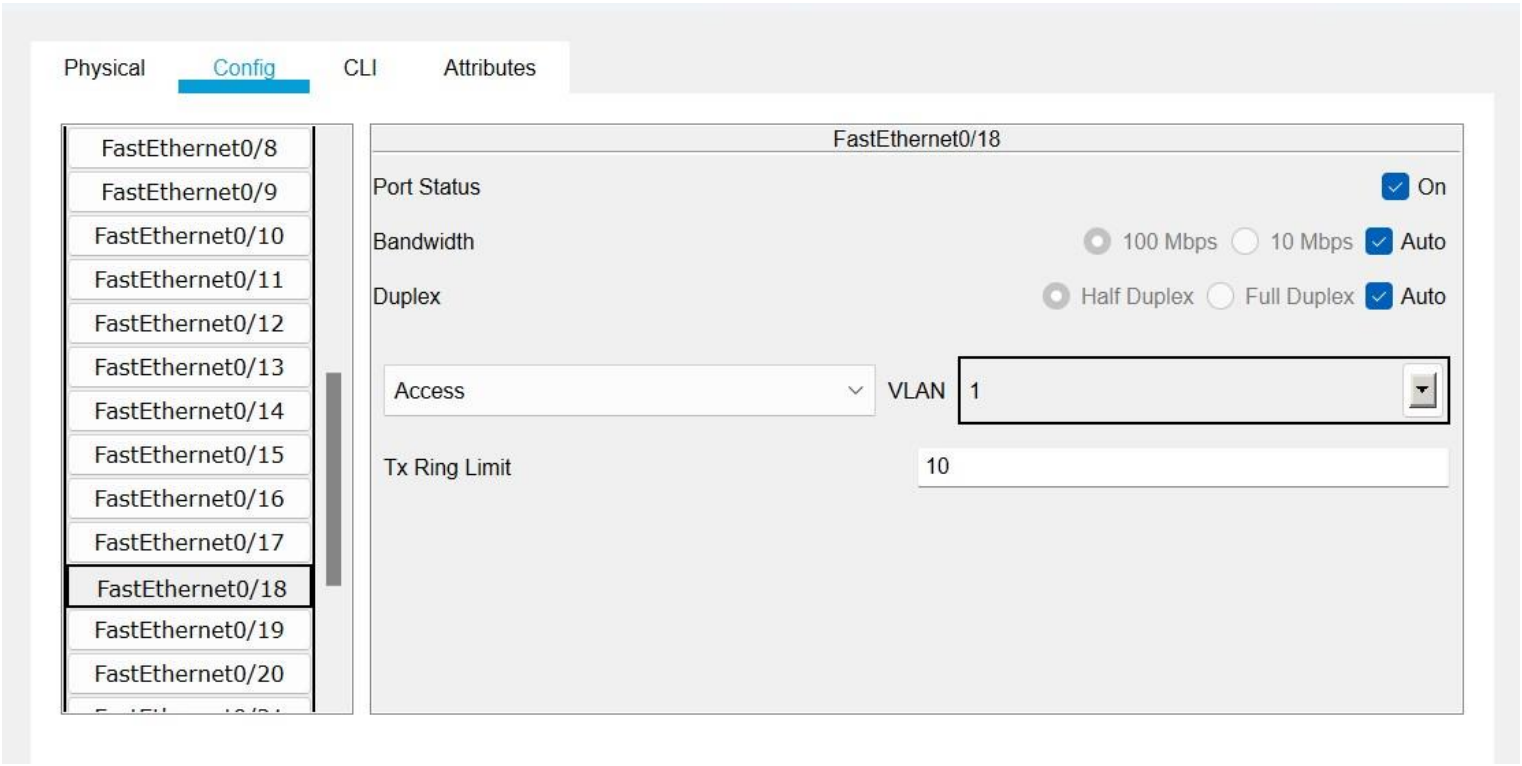

Physical
Config
CLI
Attributes
FastEthernet0/8
FastEthernet0/9
FastEthernet0/10
FastEthernet0/11
FastEthernet0/12
FastEthernet0/13
FastEthernet0/14
FastEthernet0/15
FastEthernet0/16
FastEthernet0/17
FastEthernet0/18
FastEthernet0/19
FastEthernet0/20
FastEthernet0/14
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
Access
VLAN
3
Tx Ring Limit
10

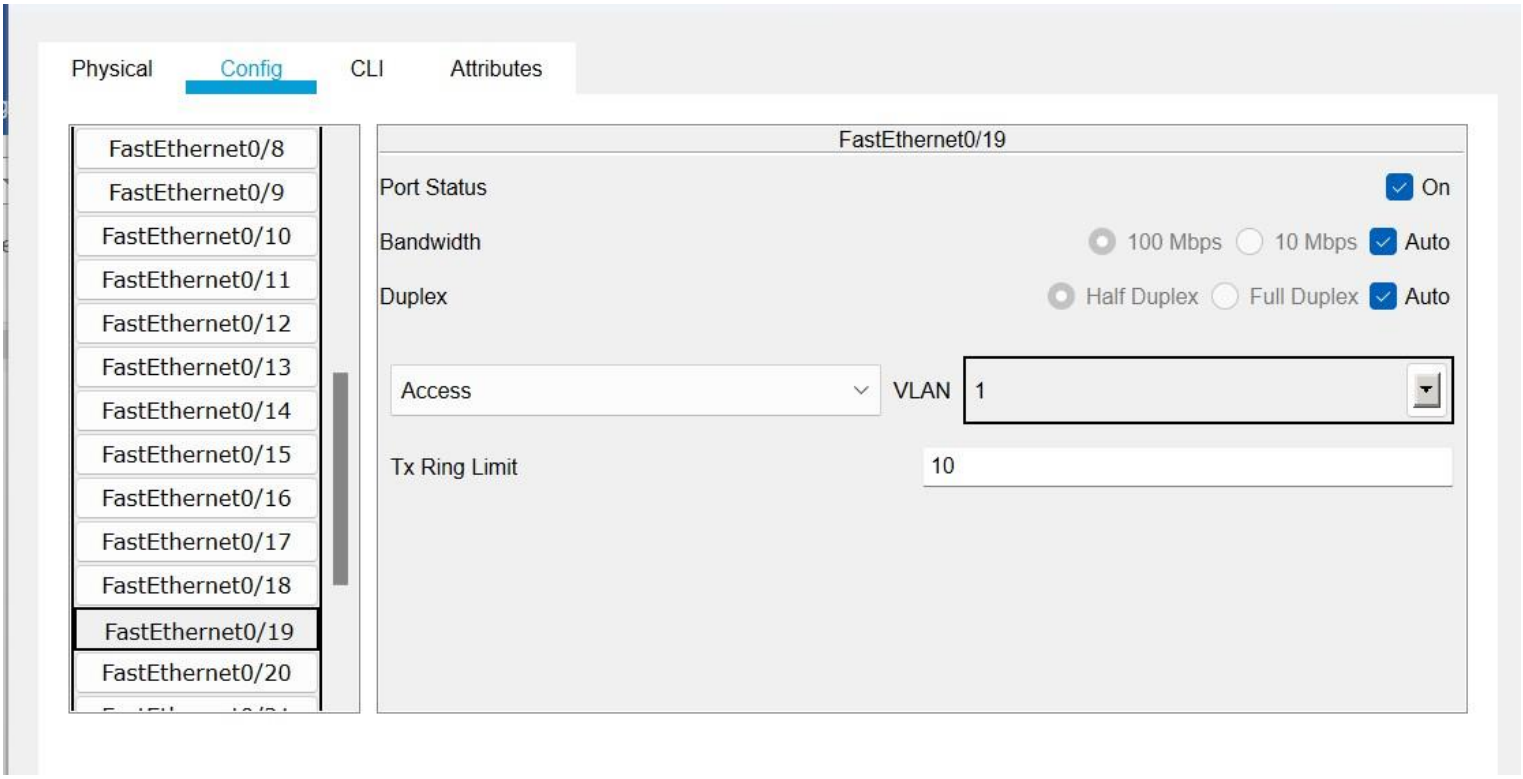

Physical
Config
CLI
Attributes
FastEthernet0/8
FastEthernet0/9
FastEthernet0/10
FastEthernet0/11
FastEthernet0/12
FastEthernet0/13
FastEthernet0/14
FastEthernet0/15
FastEthernet0/16
FastEthernet0/17
FastEthernet0/18
FastEthernet0/19
FastEthernet0/20
FastEthernet0/15
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
Access
VLAN
2
Tx Ring Limit
10



6.change Ethernet7, Ethernet8, Ethernet9 to VLAN2, VLAN1, VLAN1 Respectively.

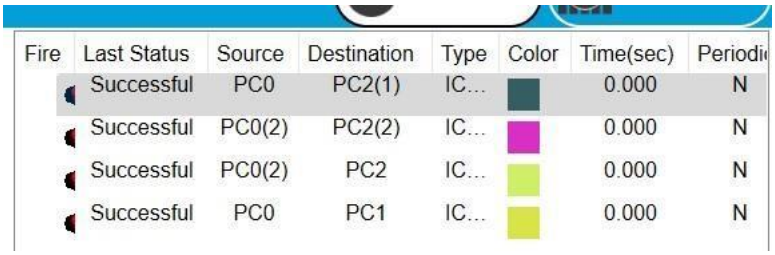






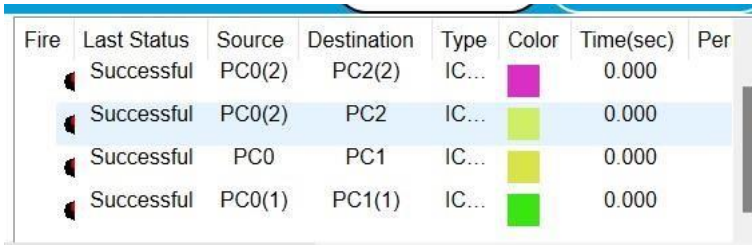
7.Simulation

i) PC-PT PC0 to PC-PT PC1 (Between LAN1)



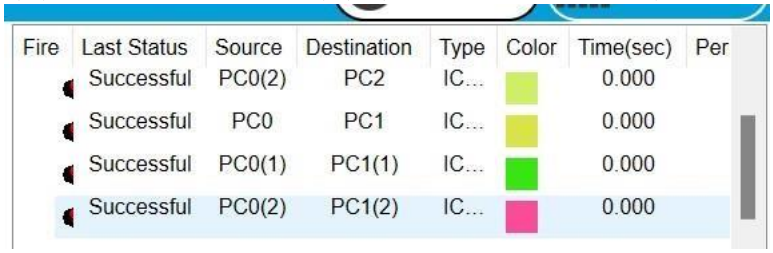
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodi
	Successful	PC0	PC2(1)	IC...		0.000	N
	Successful	PC0(2)	PC2(2)	IC...		0.000	N
	Successful	PC0(2)	PC2	IC...		0.000	N
	Successful	PC0	PC1	IC...		0.000	N

ii)PC-PT PC0(1) to PC-PT PC1(1) (Between LAN2)



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Per
	Successful	PC0(2)	PC2(2)	IC...		0.000	
	Successful	PC0(2)	PC2	IC...		0.000	
	Successful	PC0	PC1	IC...		0.000	
	Successful	PC0(1)	PC1(1)	IC...		0.000	

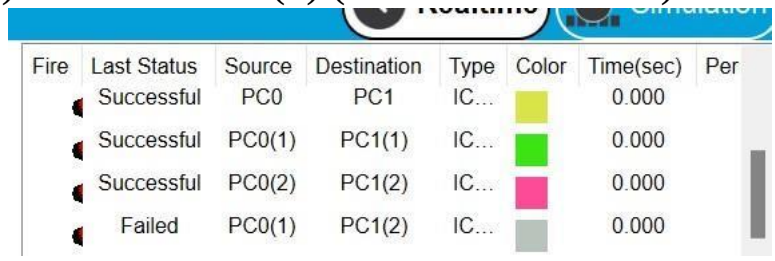
iii)PC-PT PC0(2) to PC-PT PC1(2) (Between LAN3)



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Per
	Successful	PC0(2)	PC2	IC...		0.000	
	Successful	PC0	PC1	IC...		0.000	
	Successful	PC0(1)	PC1(1)	IC...		0.000	
	Successful	PC0(2)	PC1(2)	IC...		0.000	

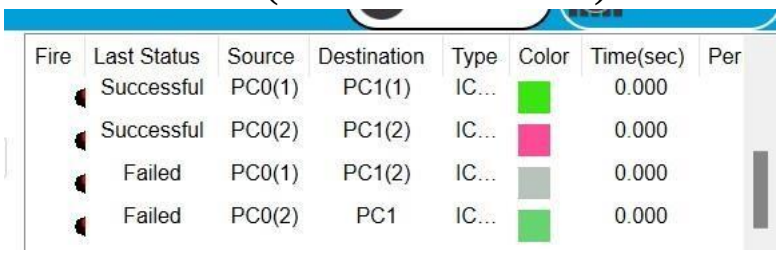
8. Now with different VLAN

i) PC-PT PC0(1) to PC-PT PC1(2) (LAN12 to LAN13)



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Per
	Successful	PC0	PC1	IC...		0.000	
	Successful	PC0(1)	PC1(1)	IC...		0.000	
	Successful	PC0(2)	PC1(2)	IC...		0.000	
	Failed	PC0(1)	PC1(2)	IC...		0.000	

ii) PC-PT PC0(2) to PC-PT PC1 (LAN13 to LAN11)



Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Per
	Successful	PC0(1)	PC1(1)	IC...		0.000	
	Successful	PC0(2)	PC1(2)	IC...		0.000	
	Failed	PC0(1)	PC1(2)	IC...		0.000	
	Failed	PC0(2)	PC1	IC...		0.000	

- **Conclusion:**

By learning this practical, I learn how to Simulate Virtual LAN configuration using CISCO Packet Tracer Simulation.
