

Practical 1

Aim: Configure the client server architecture to use the domain name to access the resource from HTTP Server. Using Cisco Packet Tracer, configure the DHCP server to provide IP addresses to PCs connected to all network. There are three networks: one in which the PCs are connected in a star topology, another in which the PCs are connected in a mesh topology, and the third in which the PCs are connected in a bus topology.

Output Screenshots:

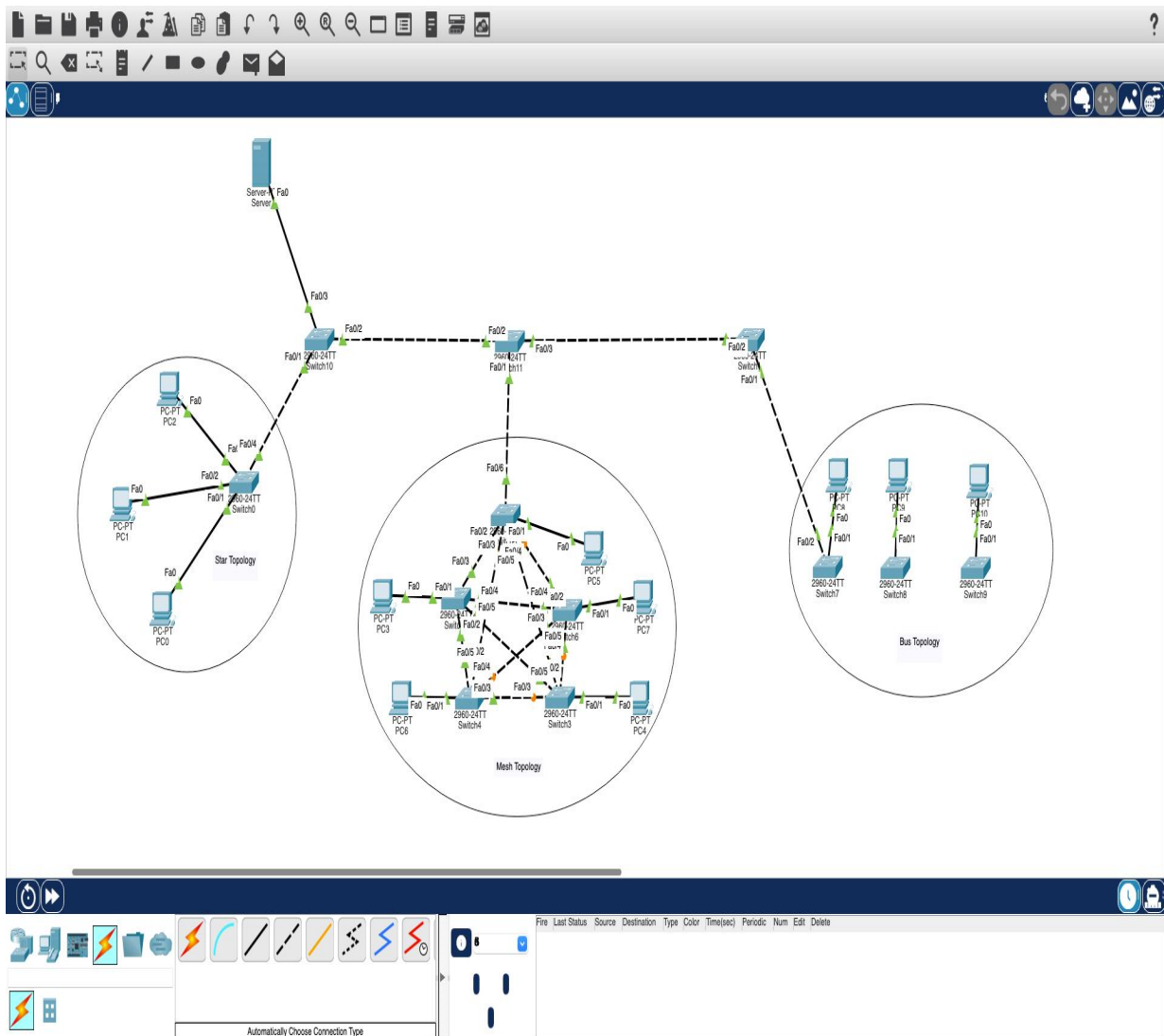


Figure 1: Topology

Practical 2

Aim: A university works on dual shifts. It has mainly 5 departments i.e., CE, CSE, IT, EC, ICT. Provost of the university wants to configure a unique network but virtually divided into 5 above mentioned department in such a way that the packets can travel or broadcasted within the same department only. Demonstrate the configuration of such network in Cisco Packet Tracer.

Output Screenshots:

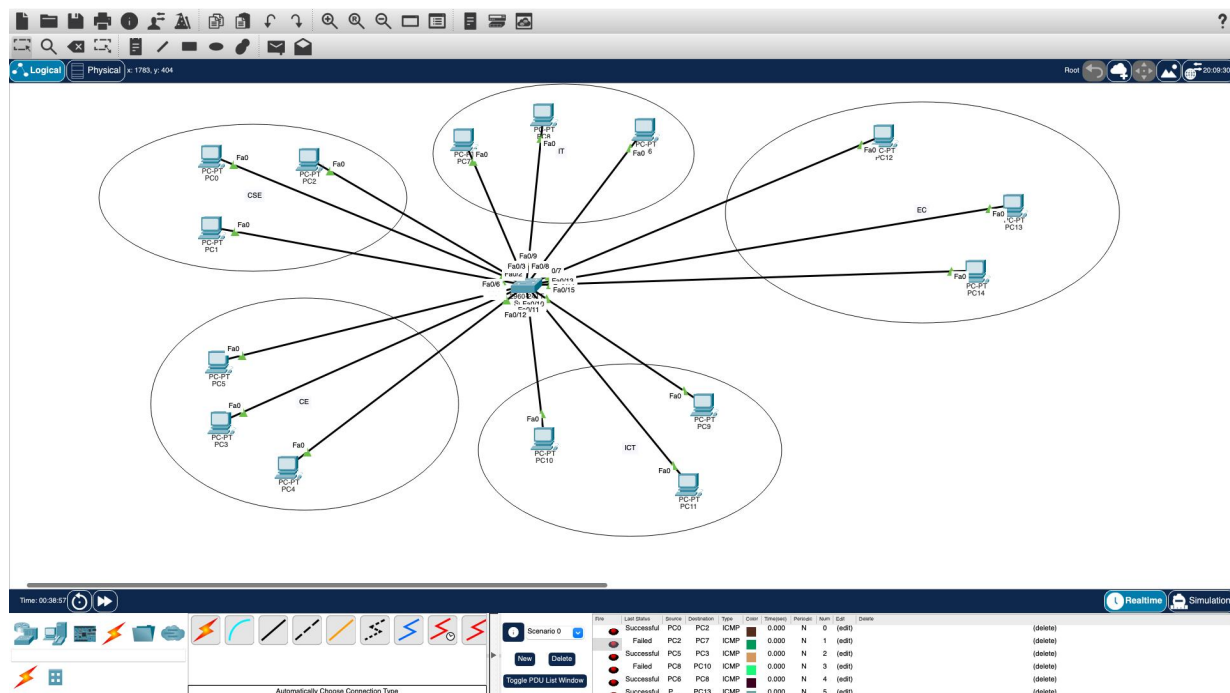
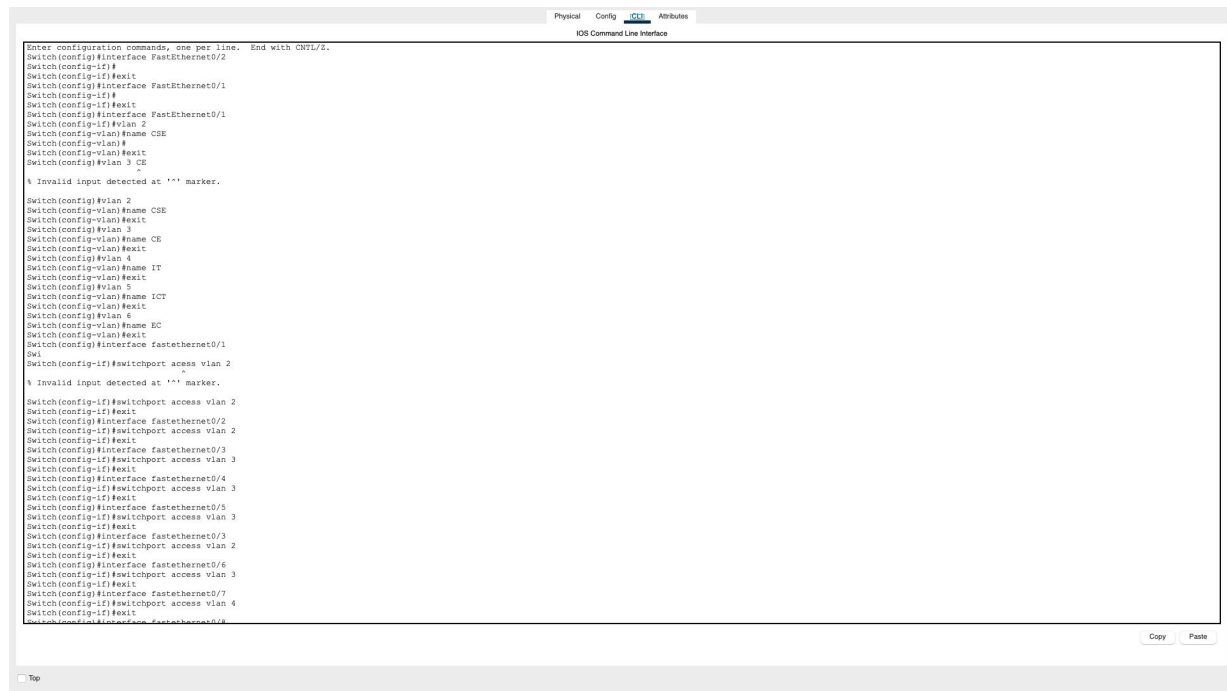


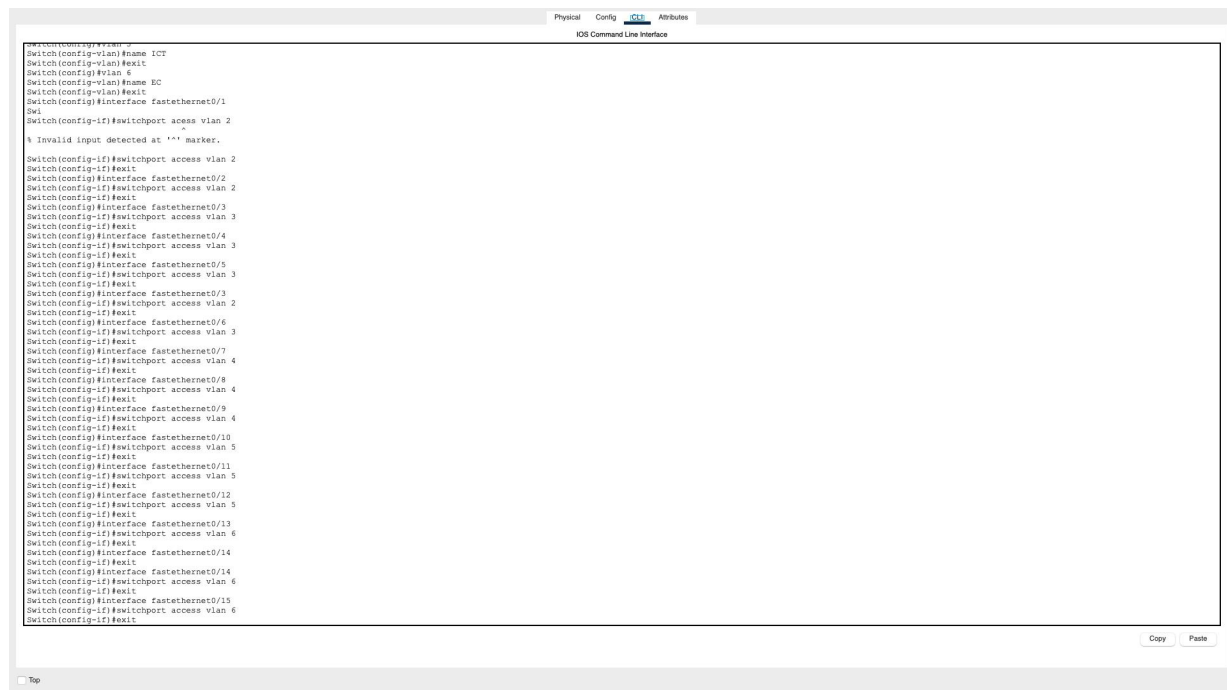
Figure 1: Topology



```
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface FastEthernet0/2
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/1
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/1
Switch(config-if)#vian 2
Switch(config-vlan)#name CSE
Switch(config-vlan)#exit
Switch(config)#vian 3
Switch(config-vlan)#name CE
Switch(config-vlan)#exit
Switch(config)#vian 4
Switch(config-vlan)#name IT
Switch(config-vlan)#exit
Switch(config)#vian 5
Switch(config-vlan)#name ICT
Switch(config-vlan)#exit
Switch(config)#vian 6
Switch(config-vlan)#name EC
Switch(config-vlan)#exit
Switch(config)#interface fastethernet0/1
Swt
Switch(config-if)#switchport access vlan 2
^
% Invalid input detected at '^' marker.

Switch(config-if)#switchport access vlan 2
Switch(config-if)#exit
Switch(config)#interface fastethernet0/2
Switch(config-if)#switchport access vlan 2
Switch(config-if)#exit
Switch(config)#interface fastethernet0/3
Switch(config-if)#switchport access vlan 3
Switch(config-if)#exit
Switch(config)#interface fastethernet0/4
Switch(config-if)#switchport access vlan 3
Switch(config-if)#exit
Switch(config)#interface fastethernet0/5
Switch(config-if)#switchport access vlan 3
Switch(config-if)#exit
Switch(config)#interface fastethernet0/3
Switch(config-if)#switchport access vlan 2
Switch(config-if)#exit
Switch(config)#interface fastethernet0/6
Switch(config-if)#switchport access vlan 3
Switch(config-if)#exit
Switch(config)#interface fastethernet0/7
Switch(config-if)#switchport access vlan 4
Switch(config-if)#exit
Switch(config)#interface fastethernet0/8
Switch(config-if)#switchport access vlan 4
Switch(config-if)#exit
```

Figure 2: VLAN configure



```
Switch(config)#vian 2
Switch(config-vlan)#name ICT
Switch(config-vlan)#exit
Switch(config)#vian 6
Switch(config-vlan)#name EC
Switch(config-vlan)#exit
Switch(config)#interface fastethernet0/1
Swt
Switch(config-if)#switchport access vlan 2
^
% Invalid input detected at '^' marker.

Switch(config-if)#switchport access vlan 2
Switch(config-if)#exit
Switch(config)#interface fastethernet0/2
Switch(config-if)#switchport access vlan 2
Switch(config-if)#exit
Switch(config)#interface fastethernet0/3
Switch(config-if)#switchport access vlan 3
Switch(config-if)#exit
Switch(config)#interface fastethernet0/4
Switch(config-if)#switchport access vlan 3
Switch(config-if)#exit
Switch(config)#interface fastethernet0/5
Switch(config-if)#switchport access vlan 3
Switch(config-if)#exit
Switch(config)#interface fastethernet0/3
Switch(config-if)#switchport access vlan 2
Switch(config-if)#exit
Switch(config)#interface fastethernet0/6
Switch(config-if)#switchport access vlan 3
Switch(config-if)#exit
Switch(config)#interface fastethernet0/7
Switch(config-if)#switchport access vlan 4
Switch(config-if)#exit
Switch(config)#interface fastethernet0/8
Switch(config-if)#switchport access vlan 4
Switch(config-if)#exit
Switch(config)#interface fastethernet0/9
Switch(config-if)#switchport access vlan 4
Switch(config-if)#exit
Switch(config)#interface fastethernet0/10
Switch(config-if)#switchport access vlan 5
Switch(config-if)#exit
Switch(config)#interface fastethernet0/11
Switch(config-if)#switchport access vlan 5
Switch(config-if)#exit
Switch(config)#interface fastethernet0/12
Switch(config-if)#switchport access vlan 5
Switch(config-if)#exit
Switch(config)#interface fastethernet0/13
Switch(config-if)#switchport access vlan 4
Switch(config-if)#exit
Switch(config)#interface fastethernet0/14
Switch(config-if)#exit
Switch(config)#interface fastethernet0/14
Switch(config-if)#switchport access vlan 4
Switch(config-if)#exit
Switch(config)#interface fastethernet0/15
Switch(config-if)#switchport access vlan 6
Switch(config-if)#exit
```

Figure 3: VLAN configure



The screenshot shows a network simulation interface. At the top, there is a status bar with a timer at 00:08:57, a play button, and a 'Realtime' indicator. Below this is a toolbar with various icons for network components and actions. The main area displays a table of packet transfer results. The table has columns for 'Status', 'Source', 'Destination', 'Type', 'Color', 'Time', 'Priority', 'Num', 'Lat', and 'Queue'. The data shows several successful and failed ICMP packets between different PCs.

Status	Source	Destination	Type	Color	Time	Priority	Num	Lat	Queue
Successful	PC0	PC2	ICMP	Blue	0.000	N	0	(edit)	(delete)
Failed	PC2	PC7	ICMP	Red	0.000	N	1	(edit)	(delete)
Successful	PC5	PC3	ICMP	Green	0.000	N	2	(edit)	(delete)
Failed	PC8	PC10	ICMP	Yellow	0.000	N	3	(edit)	(delete)
Successful	PC6	PC8	ICMP	Purple	0.000	N	4	(edit)	(delete)
Successful	P...	PC13	ICMP	Brown	0.000	N	5	(edit)	(delete)

Figure 4: Packet Transfer