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Department : BS(CS)

Semester : 4th

ID # : 15366

Examination : Mid Term Exam

Paper Subject : Data Communication  
and Networks (LAB)

Submitted To : Engr. Ghassan Husnain Sir

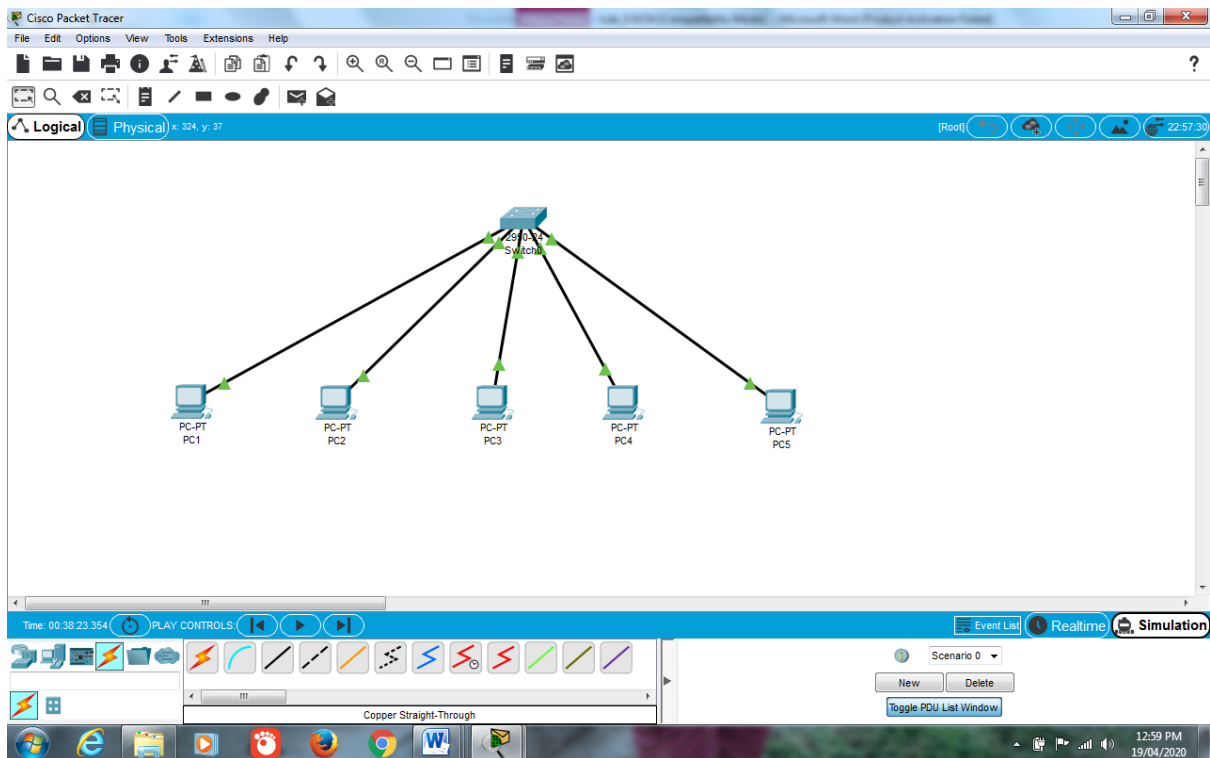
Dated : 18th April 2020

## Task 1:

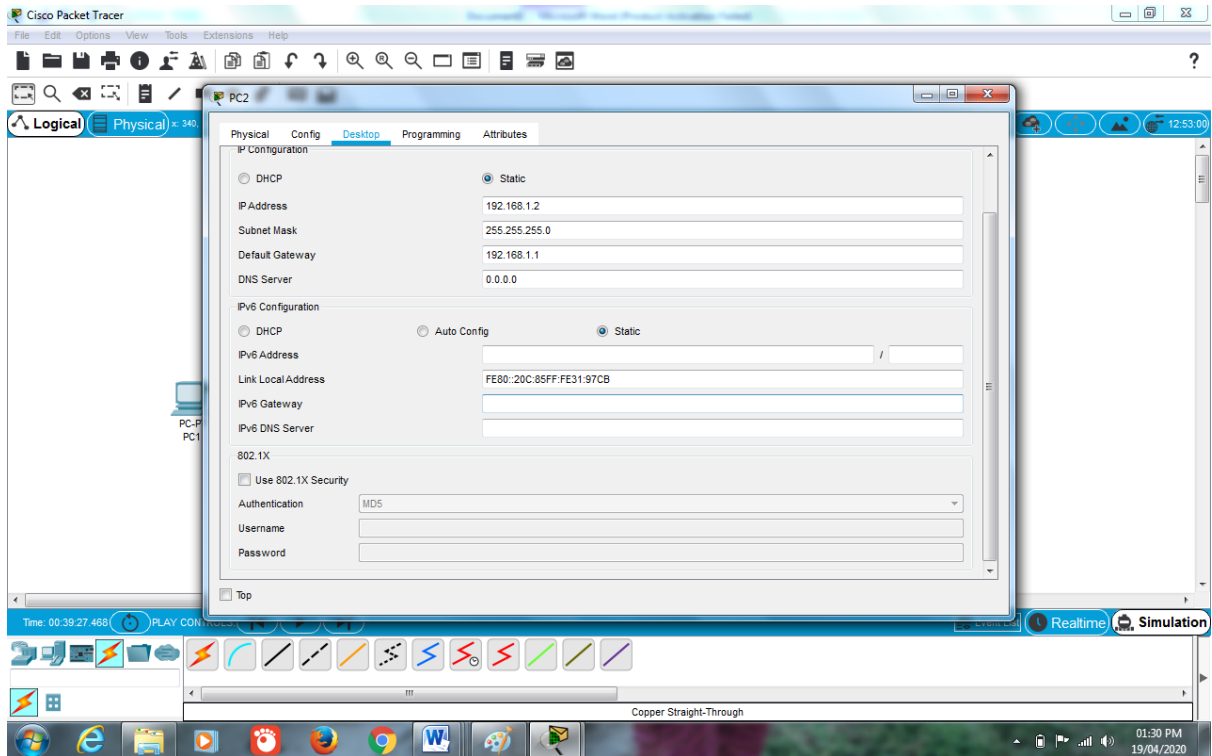
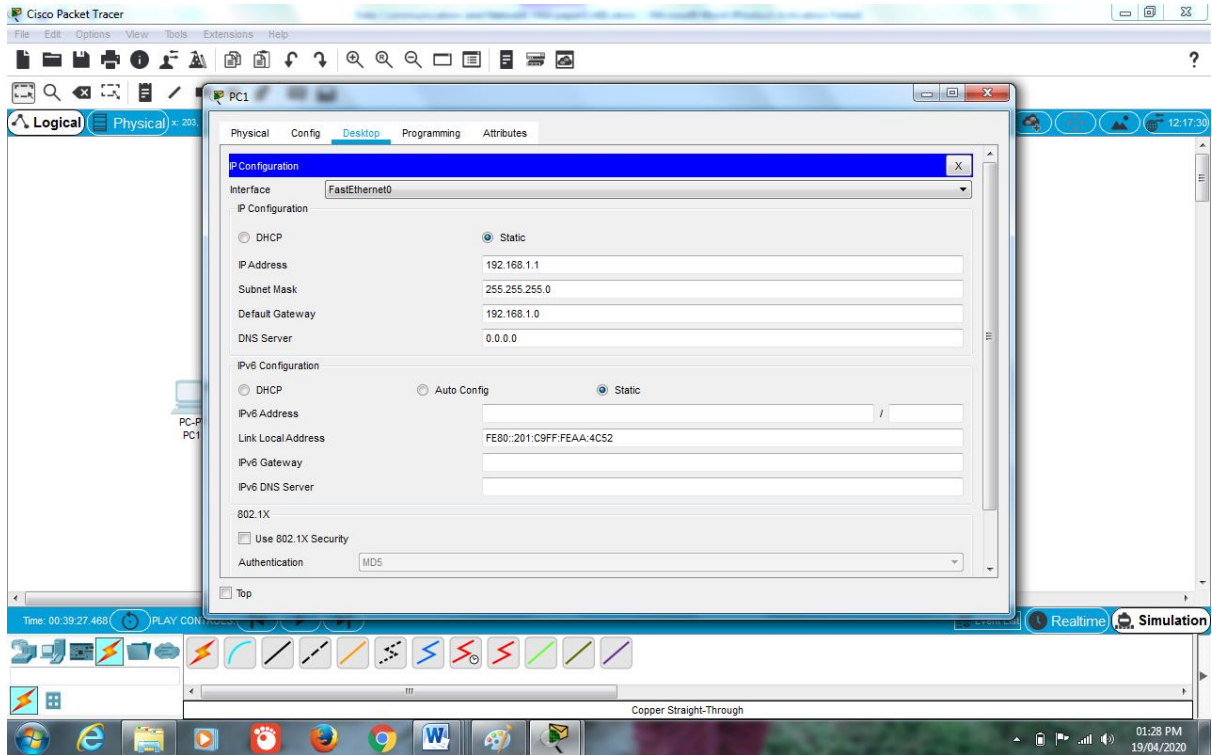
**Construct a network topology having one switch with connected with 5 PC's with Fast Ethernet Cable, assign them proper IP addresses, subnet mask and default gateways and send message from PC5 to PC1 and demonstrate the simulation.**

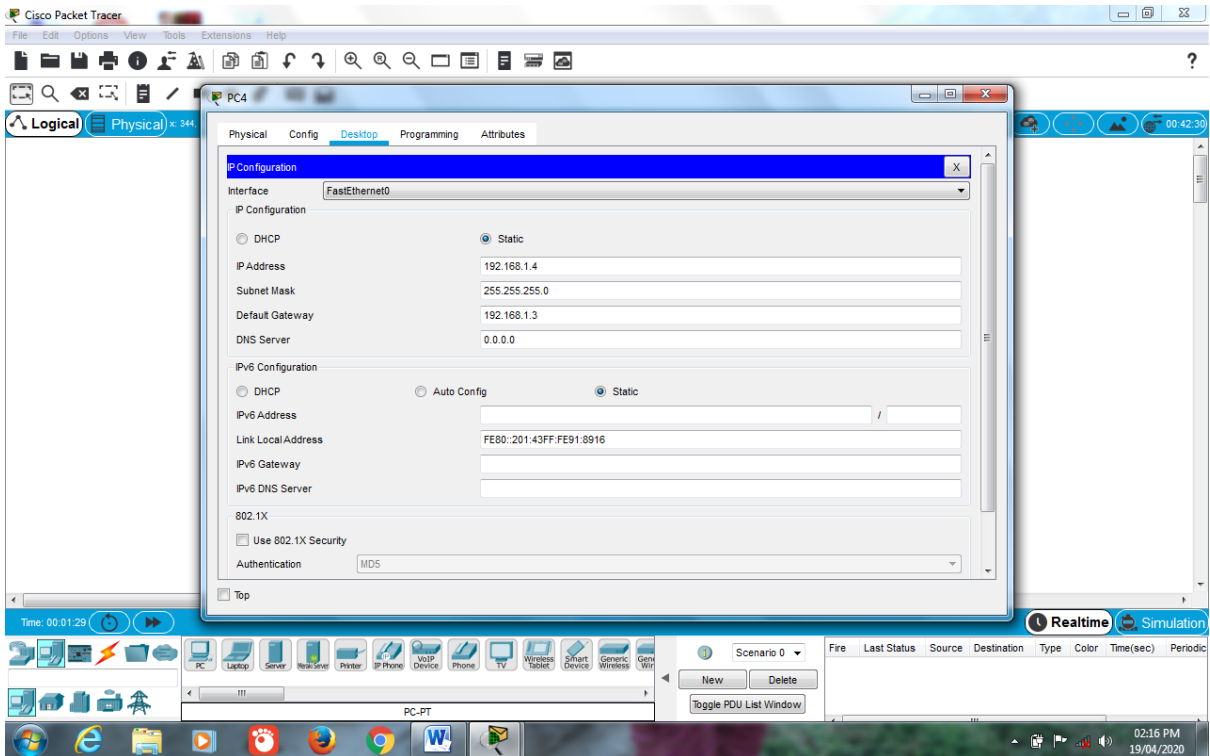
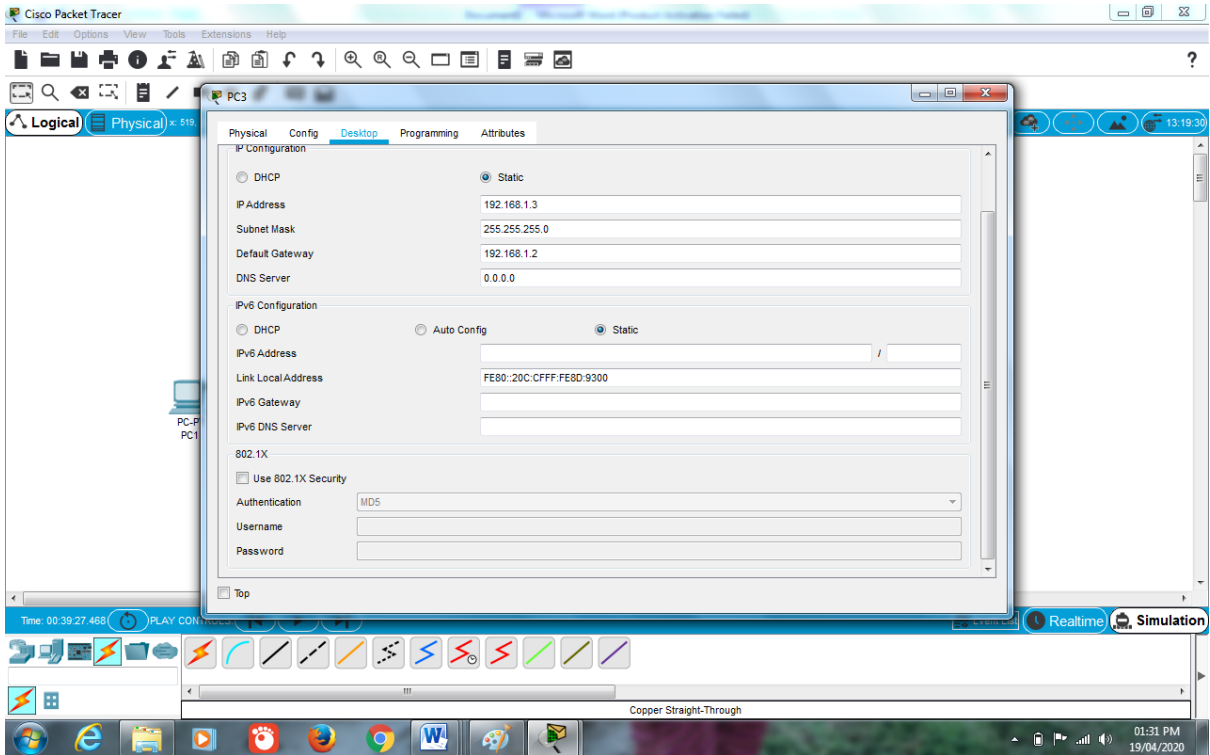
**Ans:**

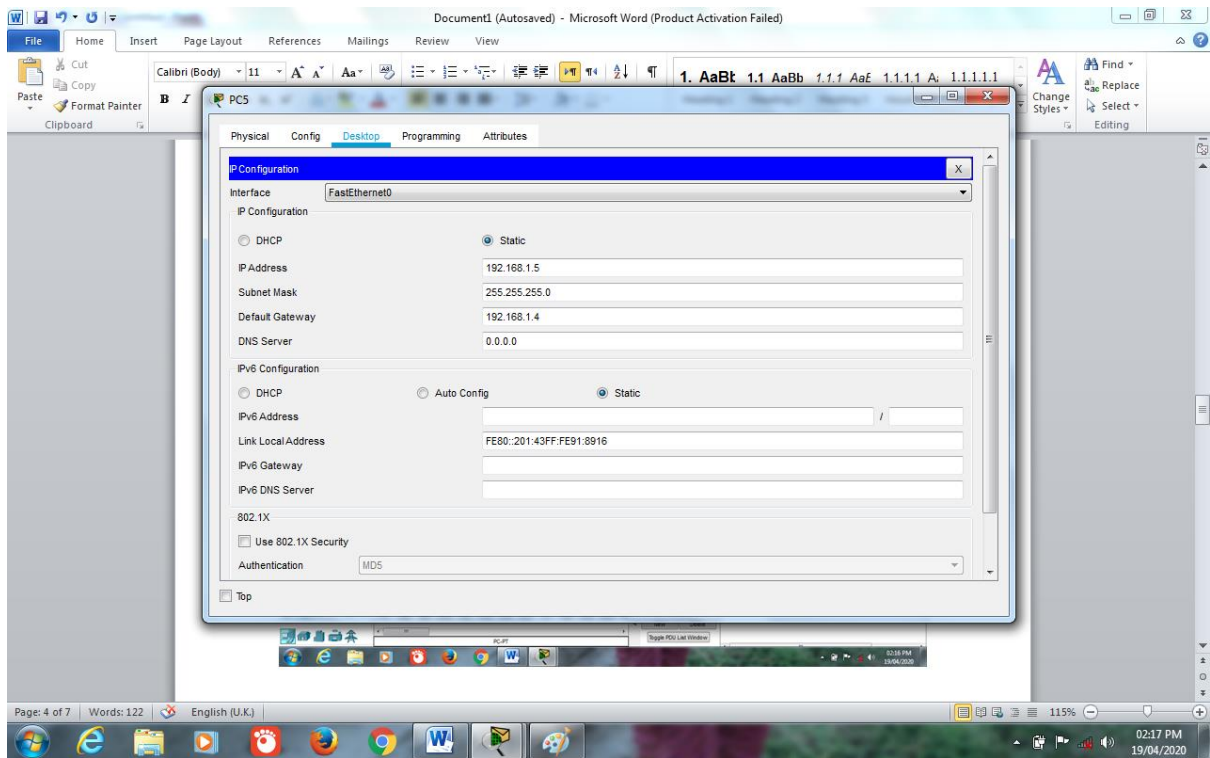
### Construction:



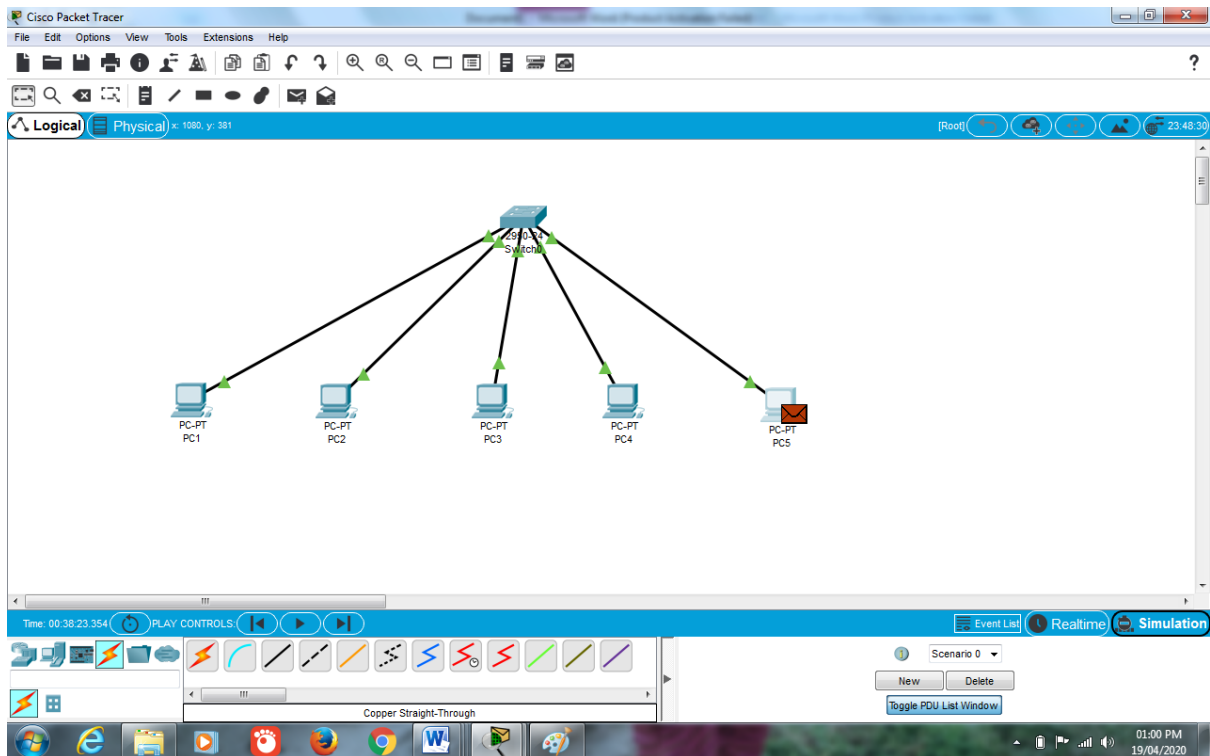
**IP Addresses, Subnet Mask, Default Gateways:**







## **Send message and Simulation:**



Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x: 747, y: 220

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.000	--	PC5	ICMP
	0.001	PC5	Switch0	ICMP
	0.002	Switch0	PC1	ICMP
	0.002	Switch0	PC2	ICMP
	0.002	Switch0	PC3	ICMP
	0.002	Switch0	PC4	ICMP
	0.003	PC1	Switch0	ICMP
	0.004	Switch0	PC5	ICMP

Reset Simulation  Constant Delay Captured to: 12.209 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telet, UDR, USB, VTP

Edit Filters Show All/None

Time: 00:38:59.612 PLAY CONTROLS: Realtime Simulation

Copper Straight-Through

01:16 PM 19/04/2020

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x: 859, y: 189

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.000	--	PC5	ICMP
	0.001	PC5	Switch0	ICMP
	0.002	Switch0	PC1	ICMP
	0.002	Switch0	PC2	ICMP
	0.002	Switch0	PC3	ICMP
	0.002	Switch0	PC4	ICMP
	0.003	PC1	Switch0	ICMP
	0.004	Switch0	PC5	ICMP

Reset Simulation  Constant Delay Captured to: 14.208 s

Play Controls

Event List Filters - Visible Events

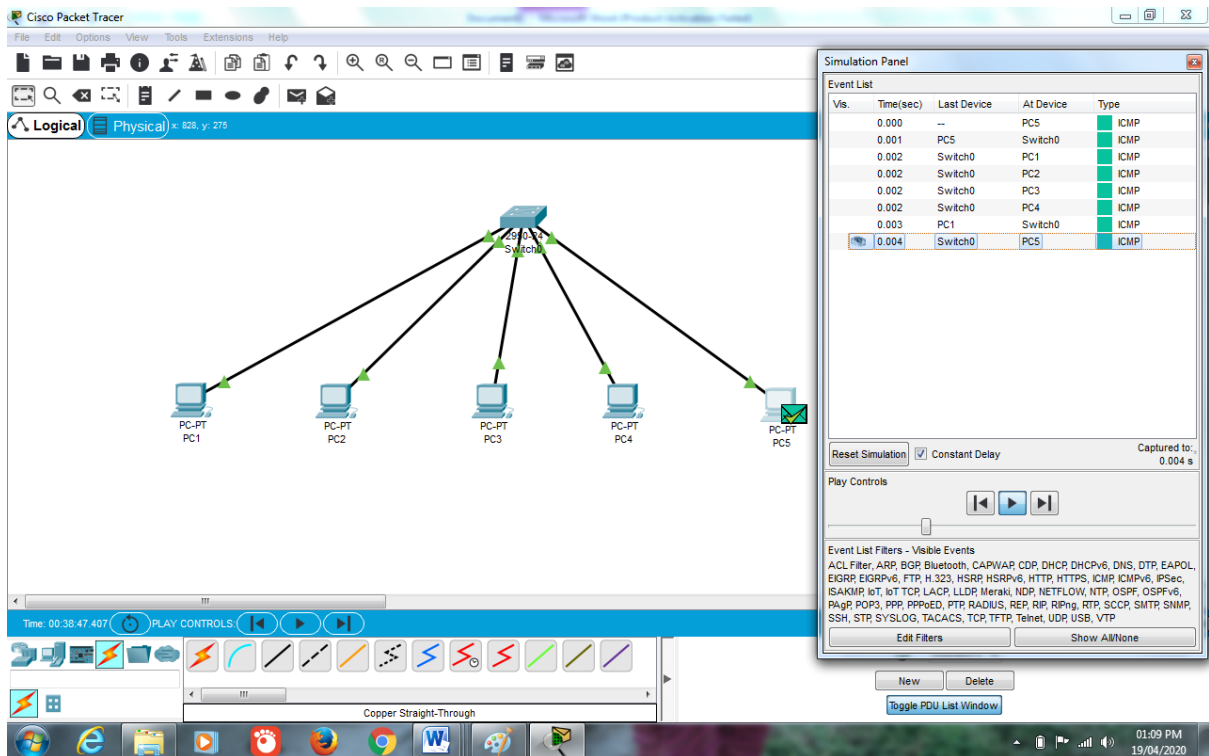
ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telet, UDR, USB, VTP

Edit Filters Show All/None

Time: 00:39:01.611 PLAY CONTROLS: Realtime Simulation

Copper Straight-Through

01:20 PM 19/04/2020

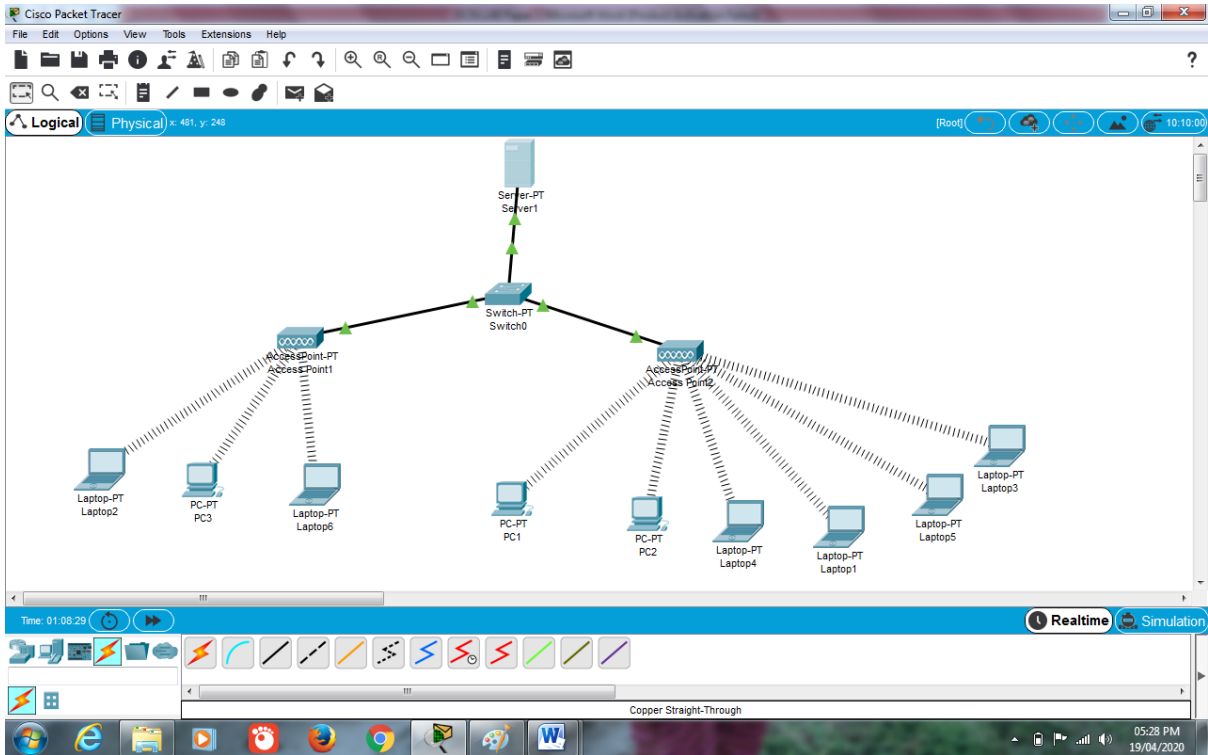


## Task 2:

**Construct a client server model that have 9 hosts, three of them are computers, and other six hosts will be laptops, in which further connected to 2 access points through wireless channel, as three of them will be connected to access point 1 and other through access point 2, assign them IP address and subnet masks dynamically from the server. Moreover, access the HTTP server from the client and show the results.**

**Ans:**

**Construction:**

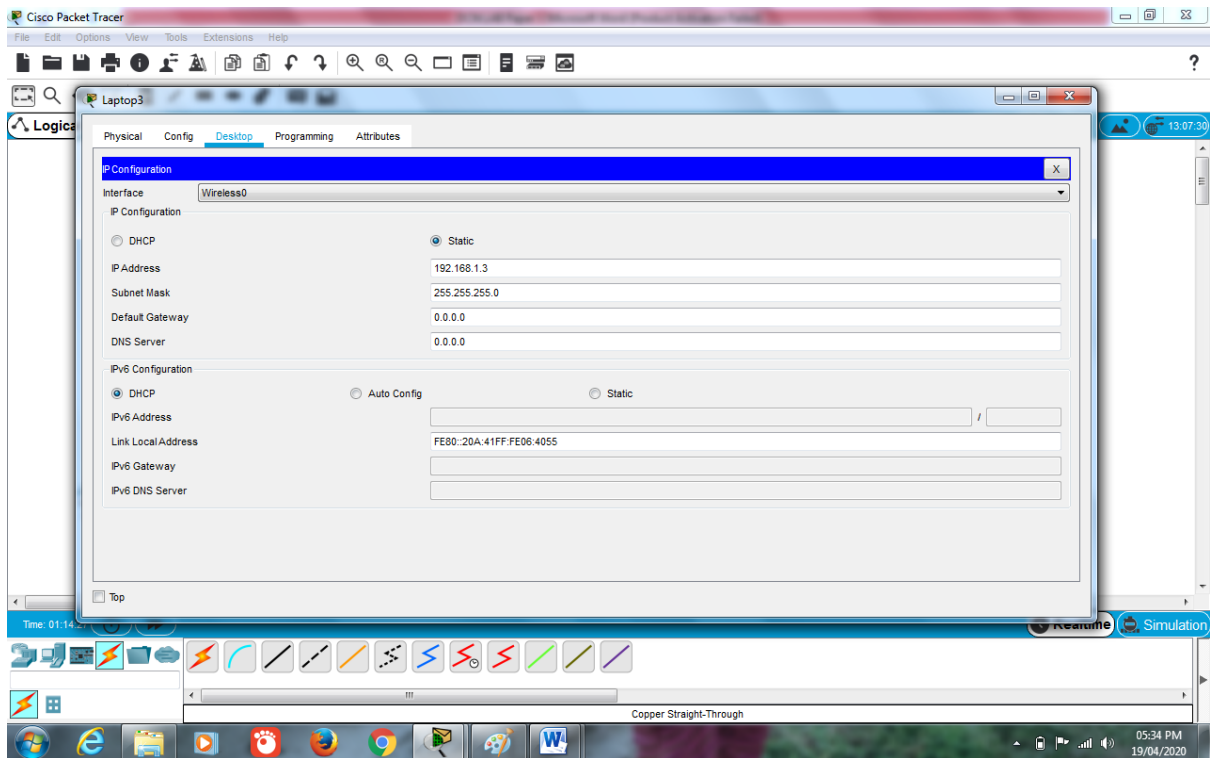
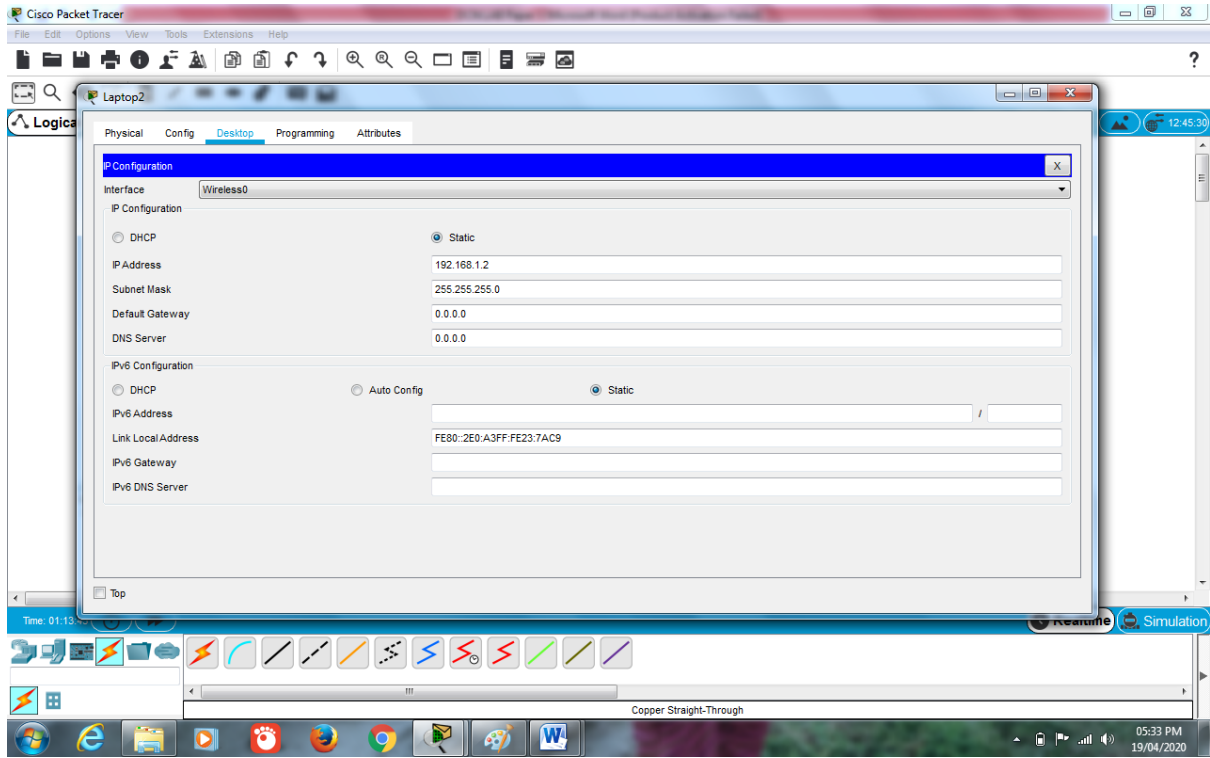


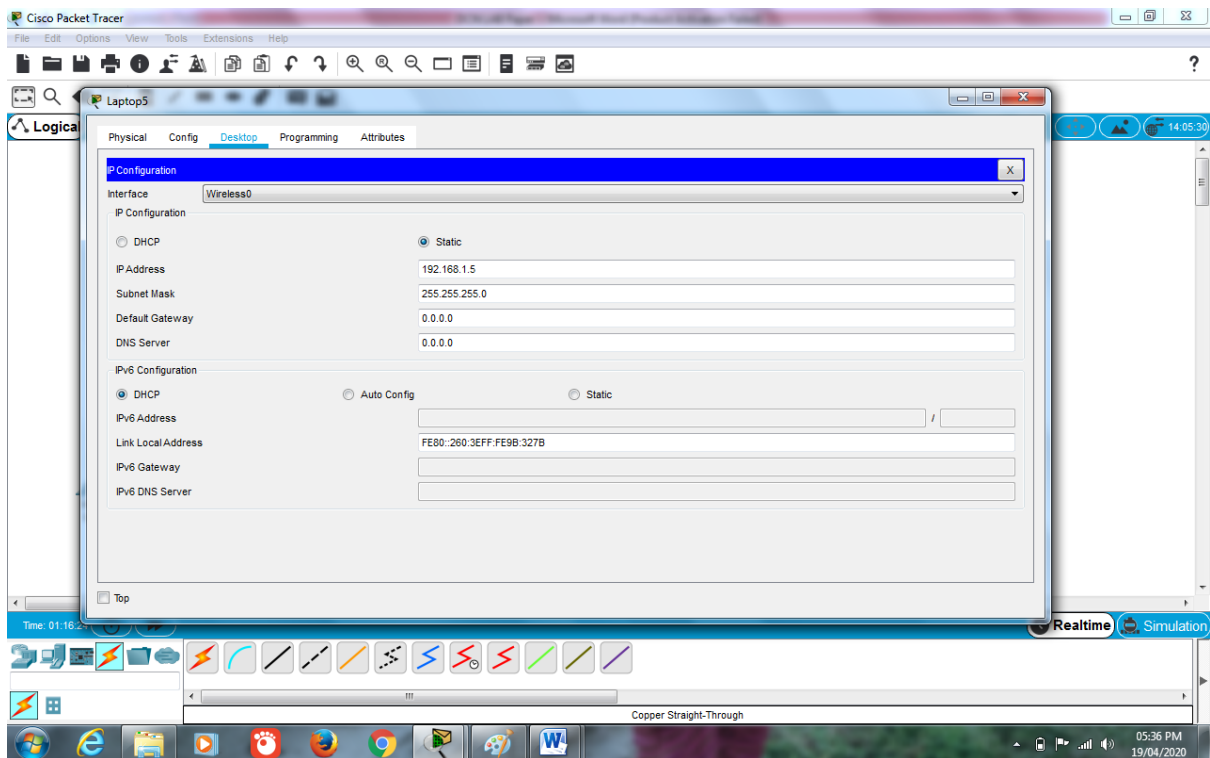
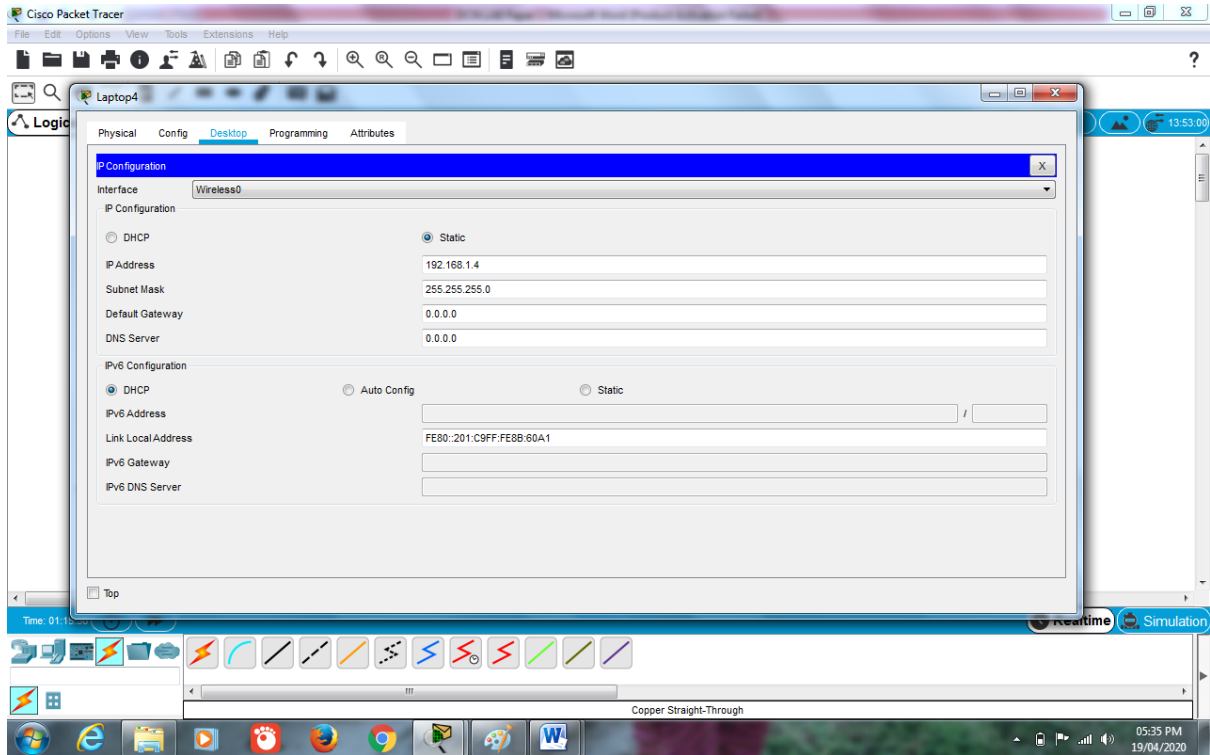
## IP Addresses and Subnet Masks:

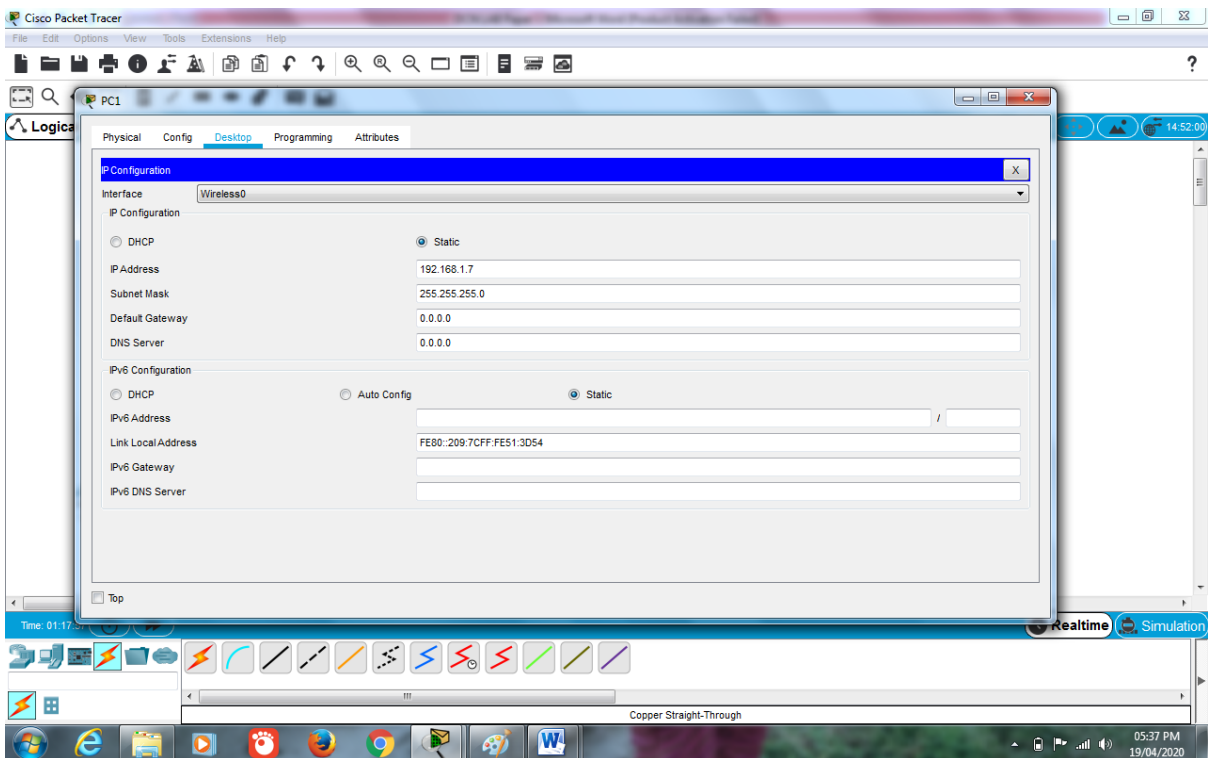
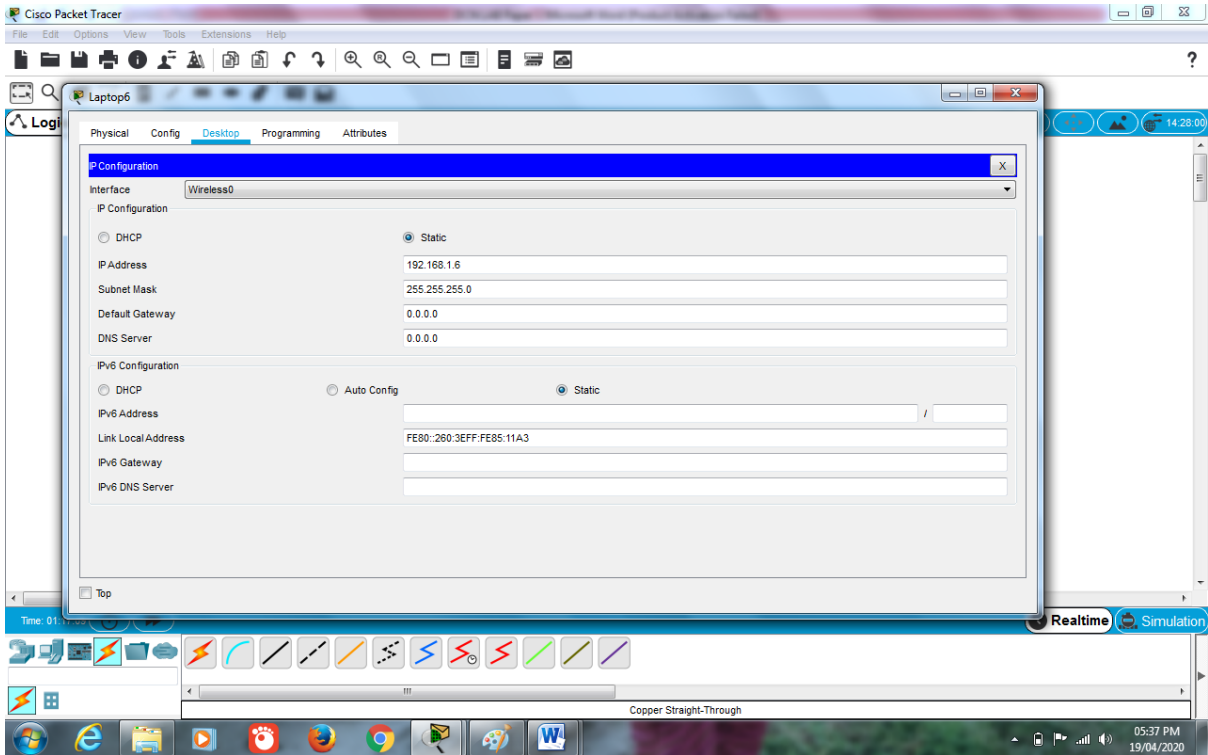
**IP Configuration**  
 Interface: Wireless0  
 IP Configuration:  DHCP  Static  
 IP Address: 192.168.1.1  
 Subnet Mask: 255.255.255.0  
 Default Gateway: 0.0.0.0  
 DNS Server: 0.0.0.0

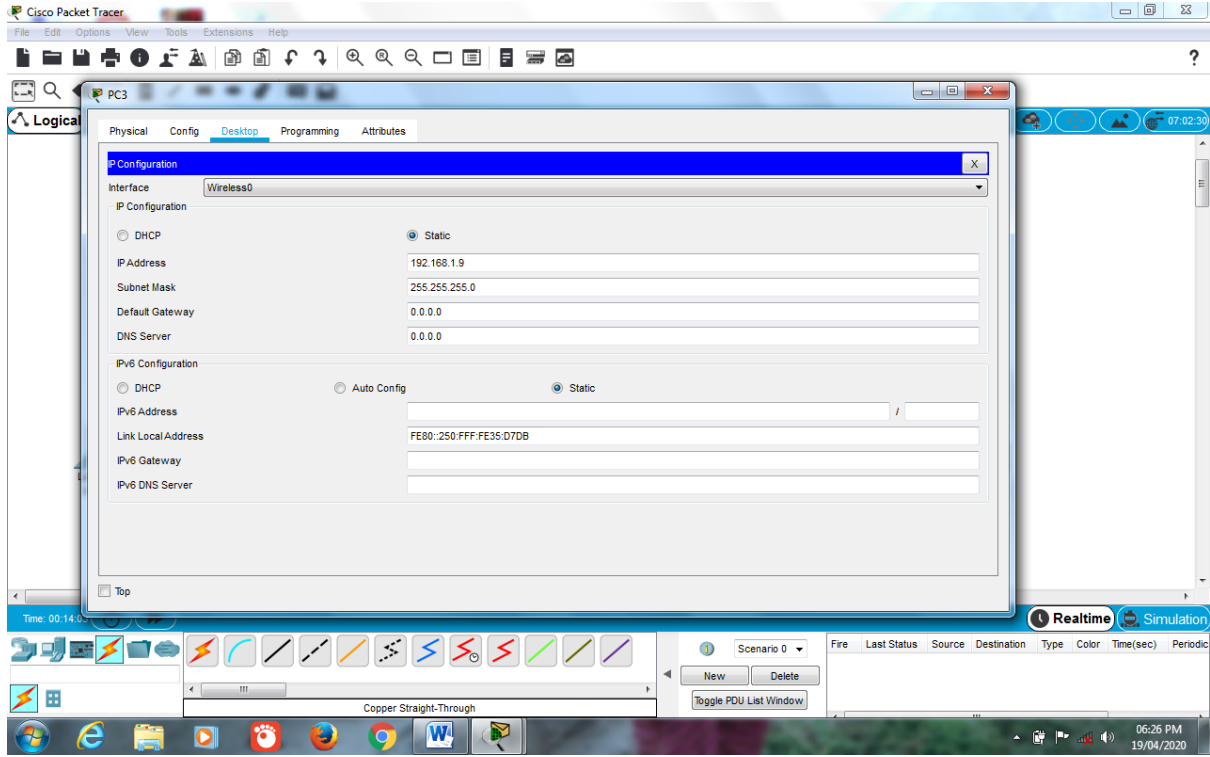
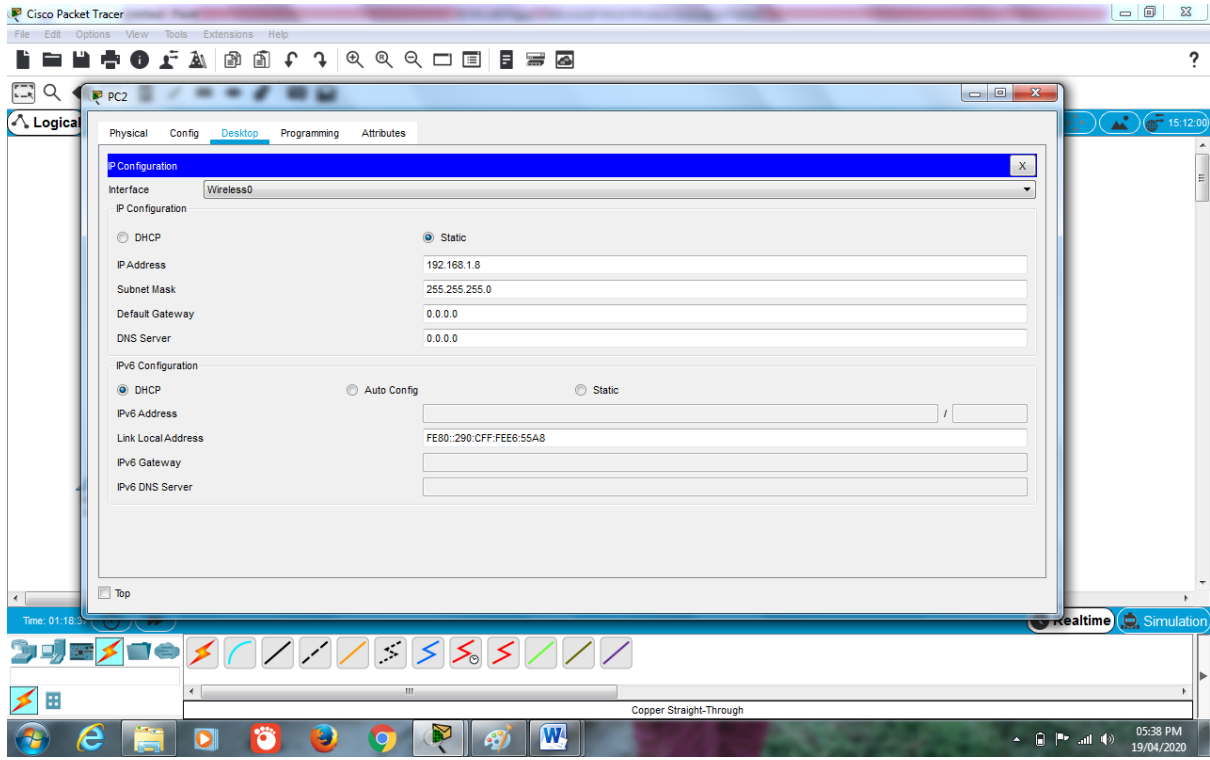
**IPv6 Configuration**  
 IPv6 Configuration:  DHCP  Auto Config  Static  
 IPv6 Address:   
 Link Local Address: FE80::260:47FF:FEA4:5D4B  
 IPv6 Gateway:   
 IPv6 DNS Server:   
 Top

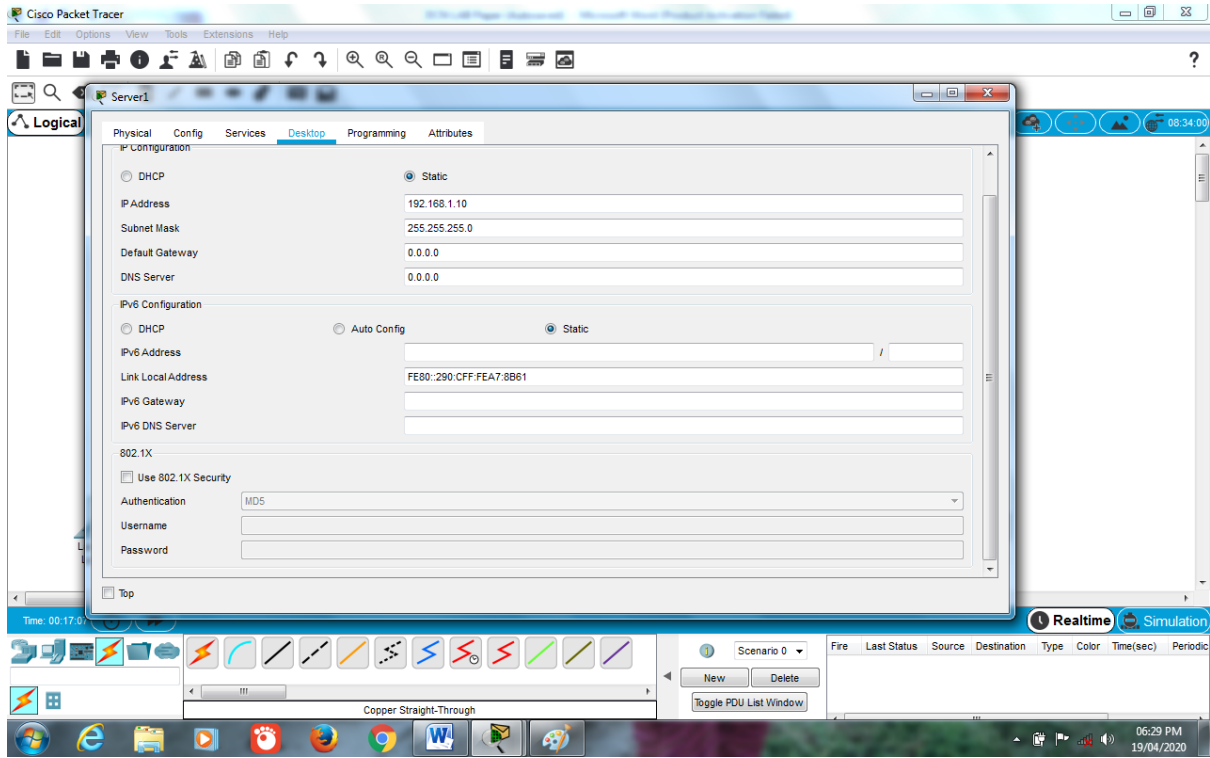




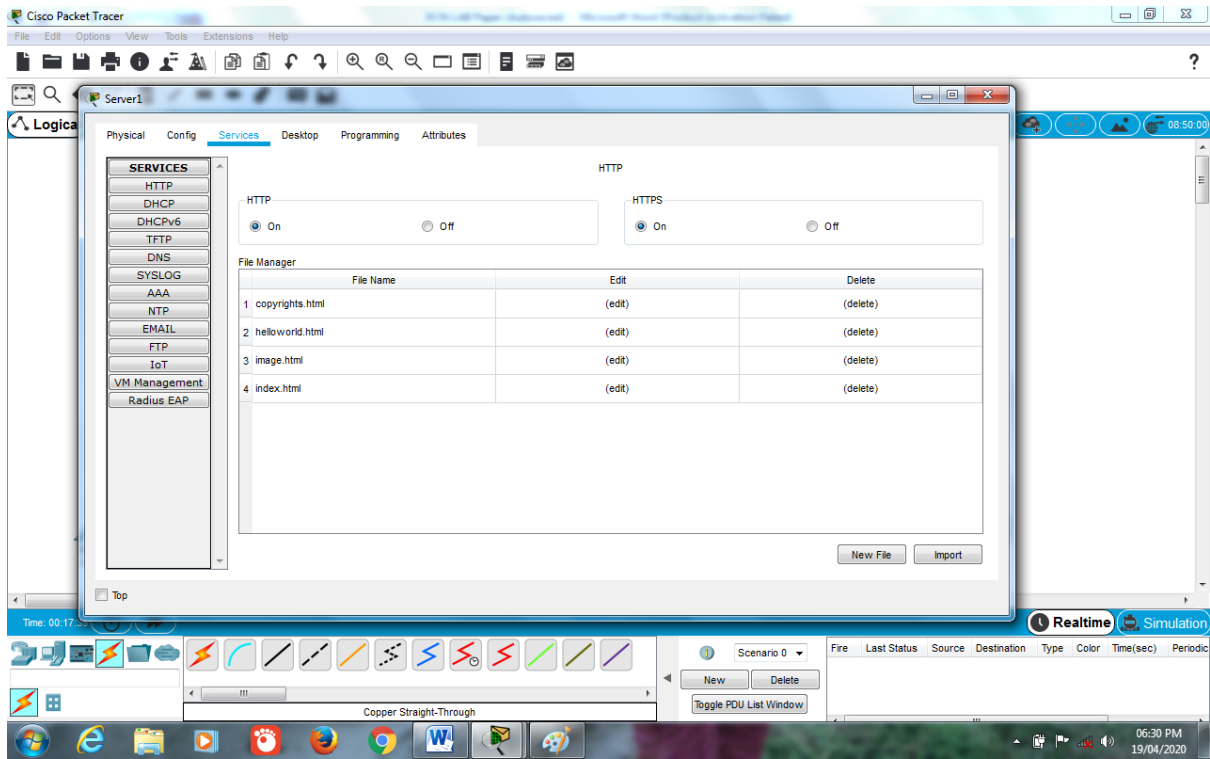




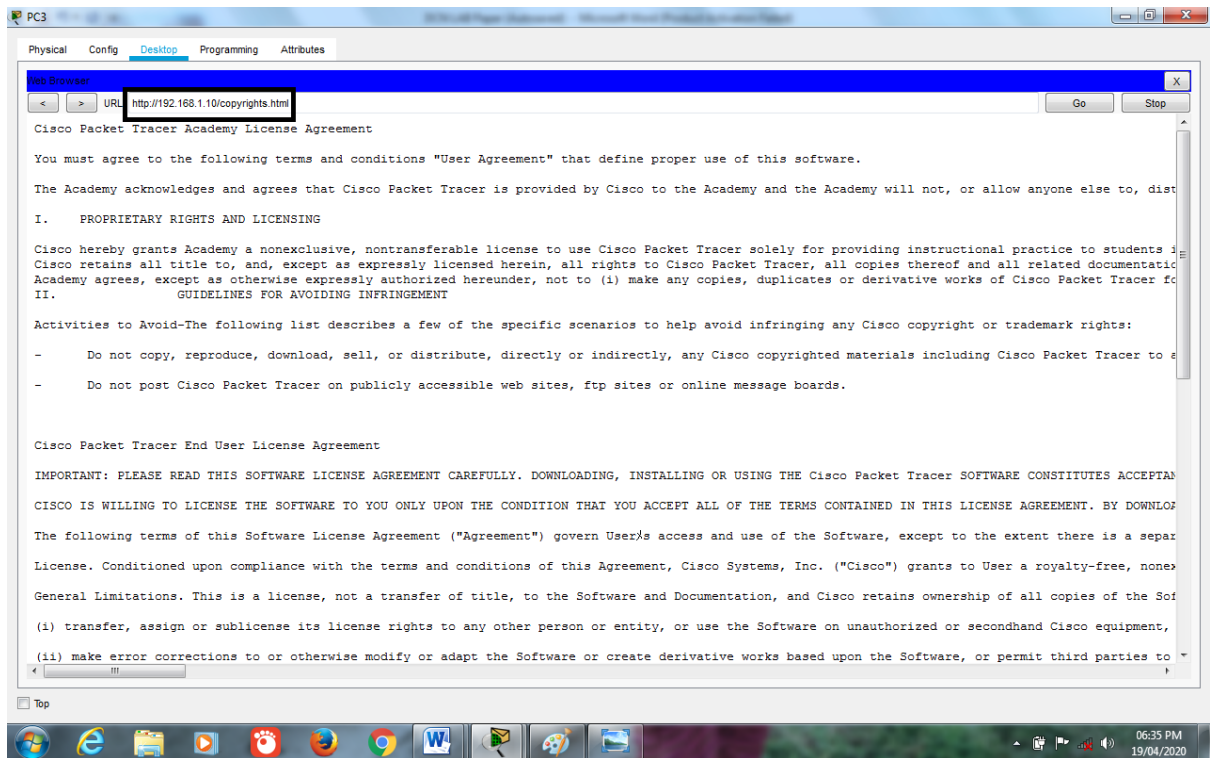
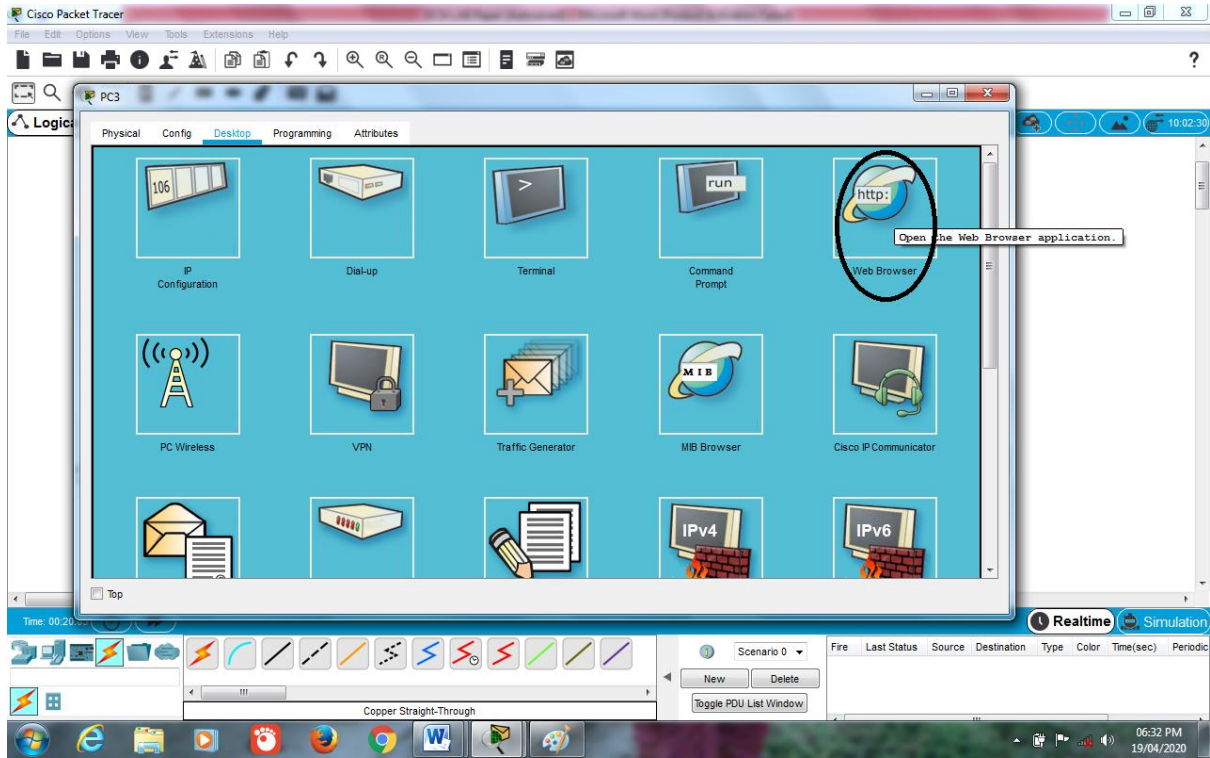


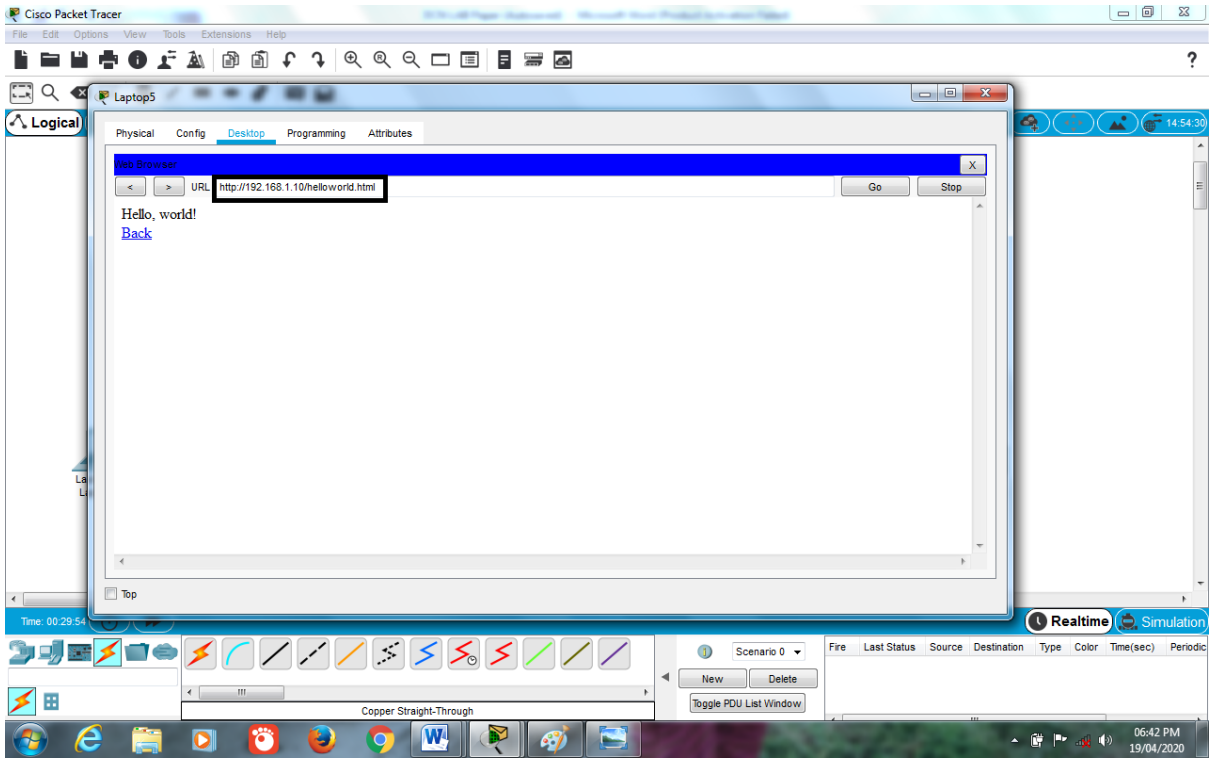
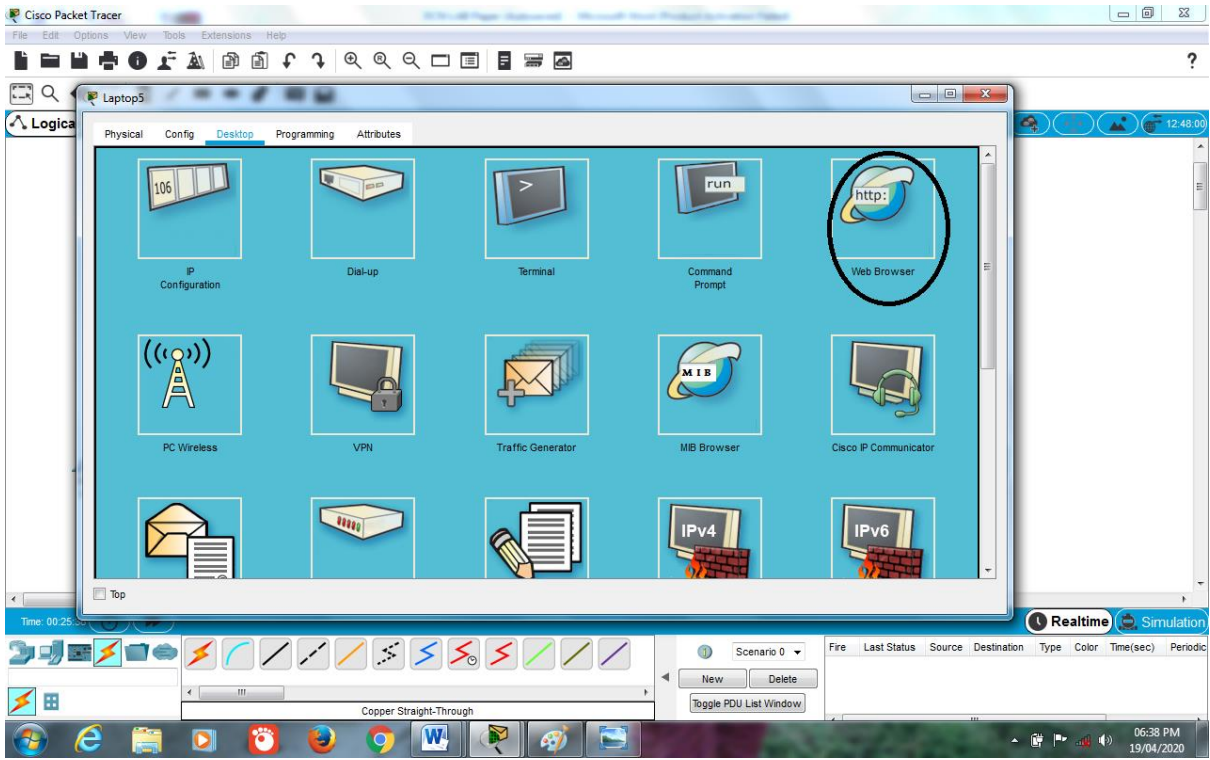


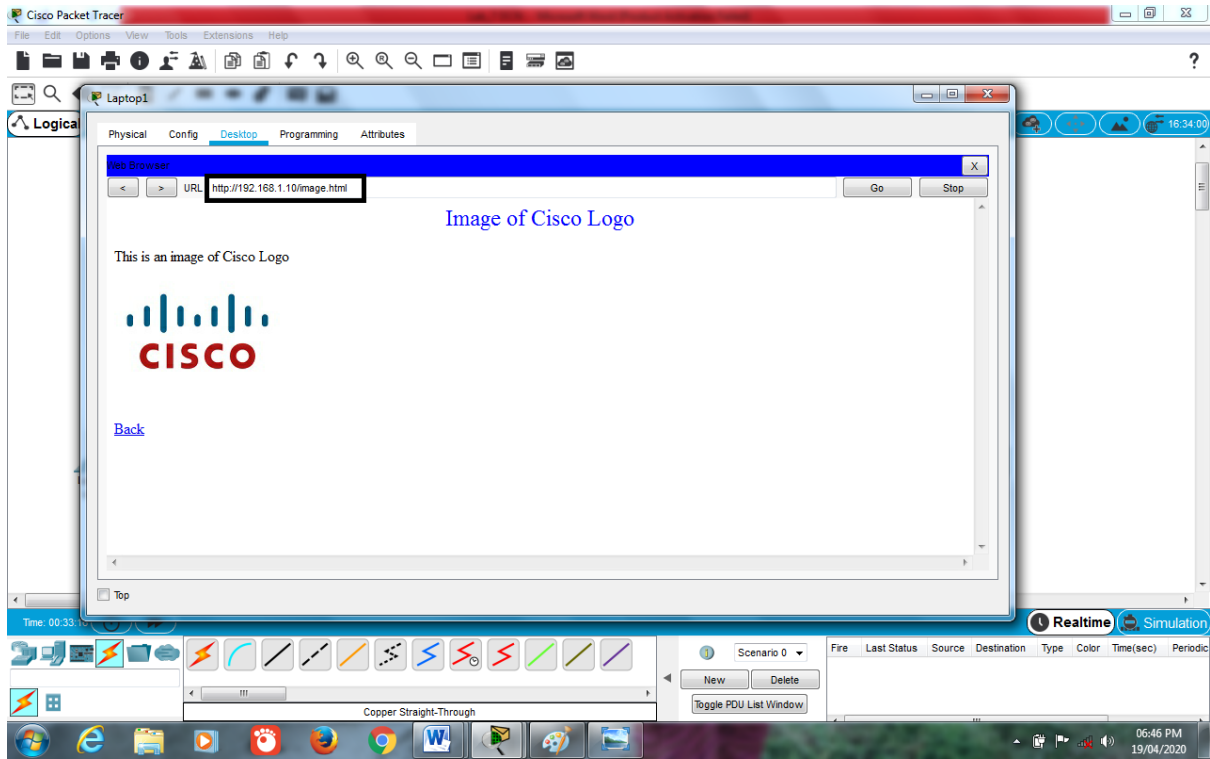
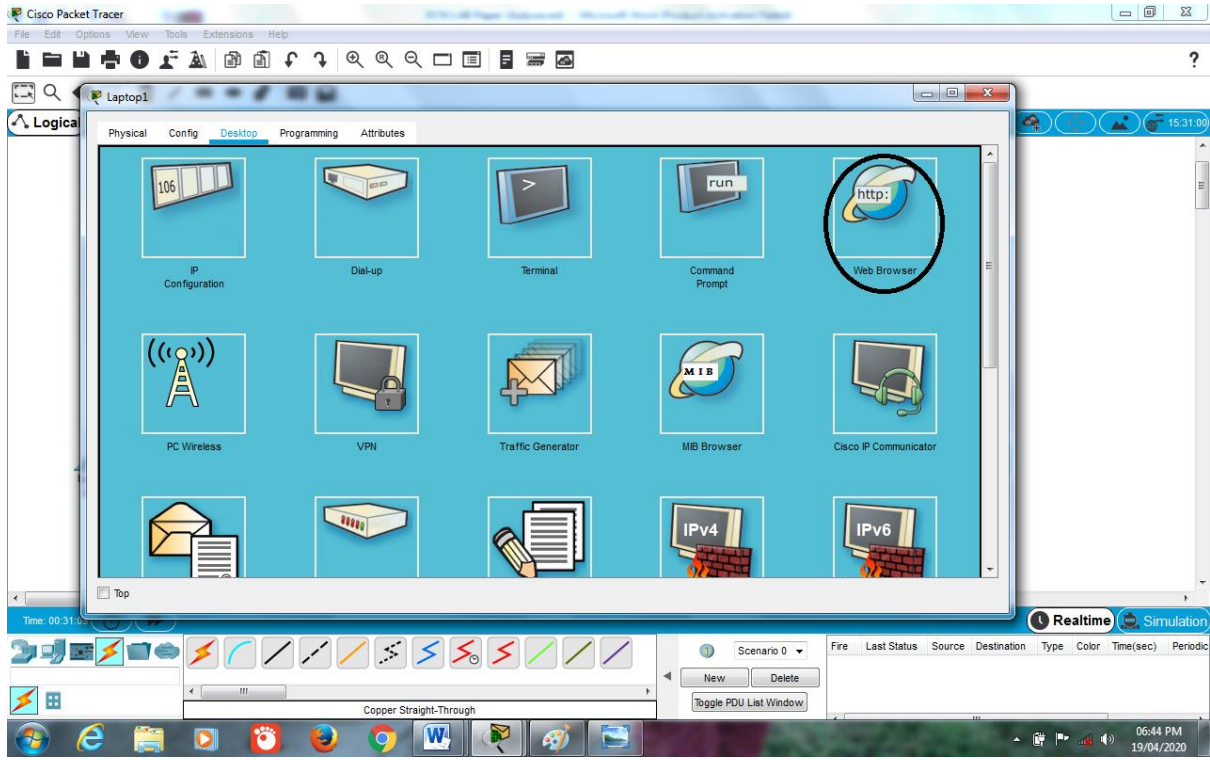
## HTTP in Server1:



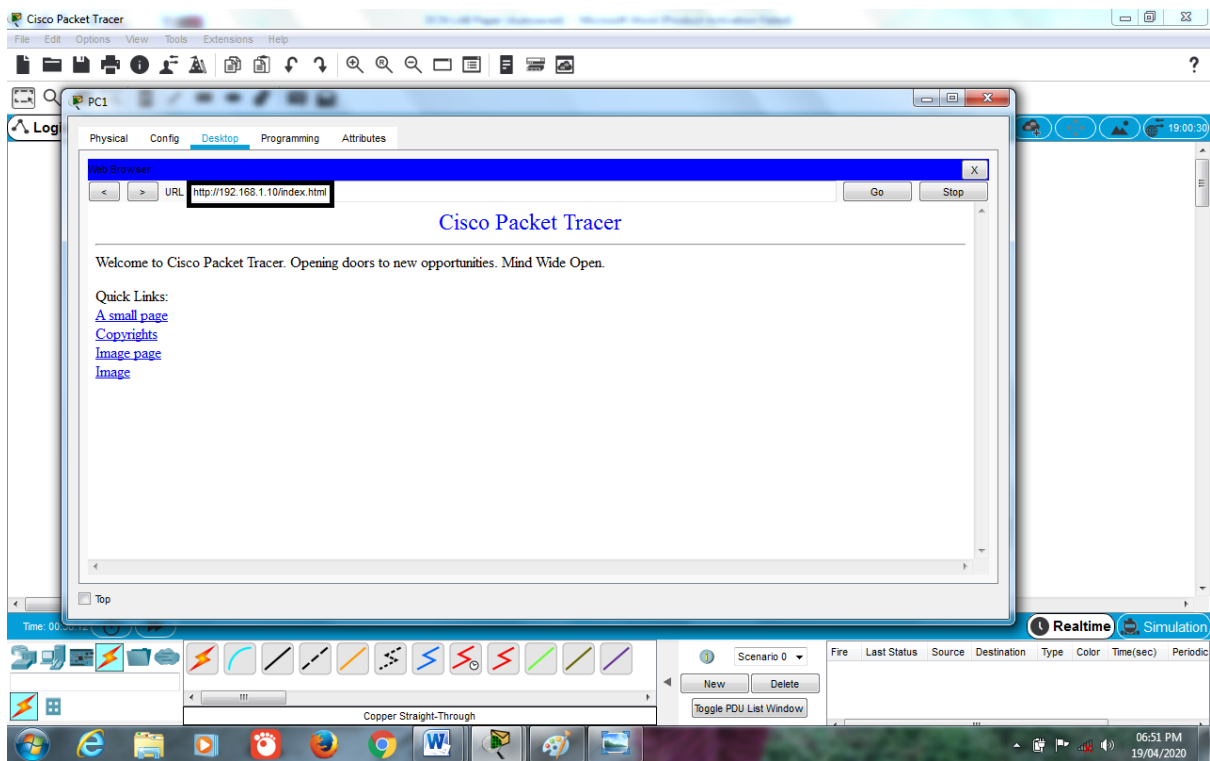
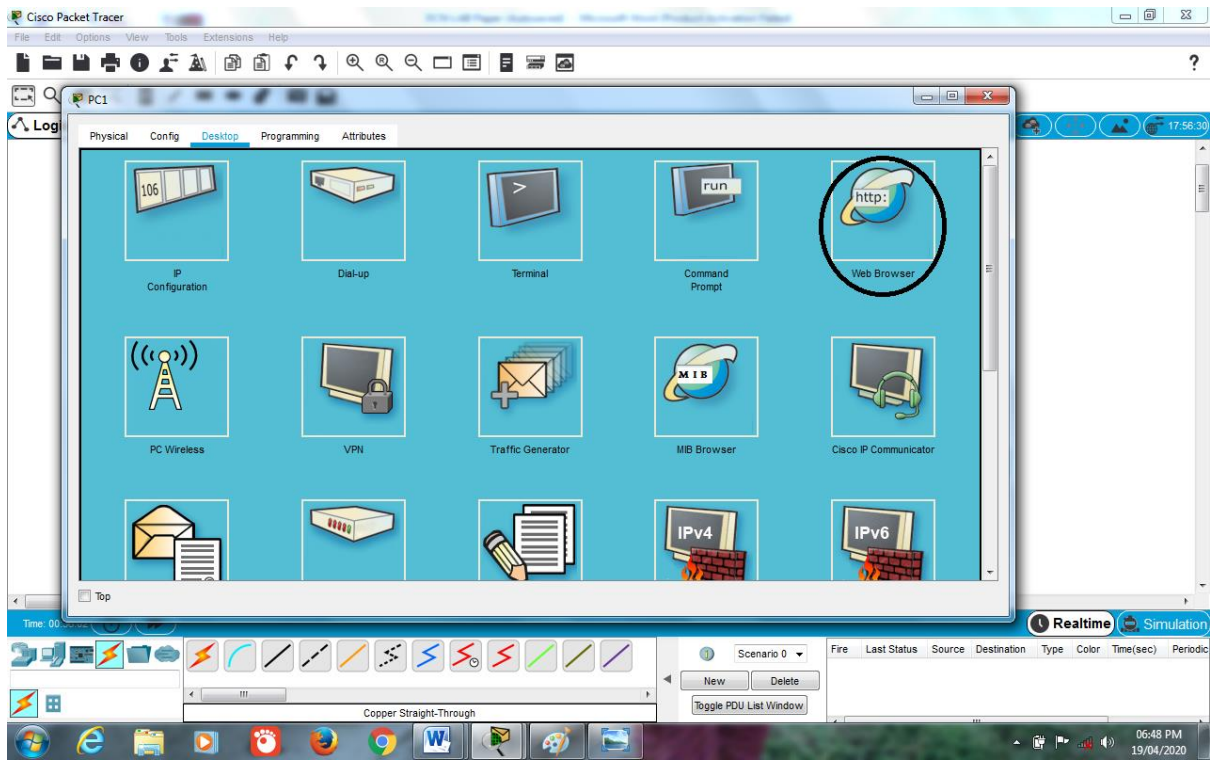
## HTTP Server from the Client and Results:











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