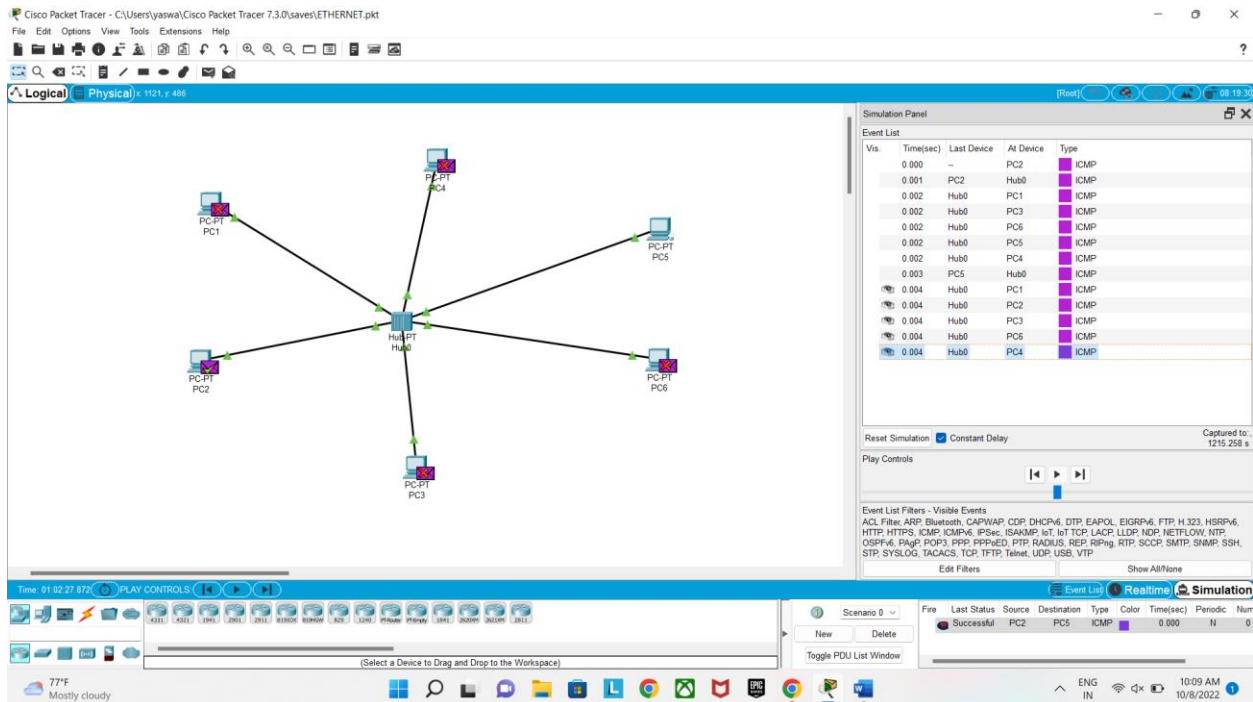


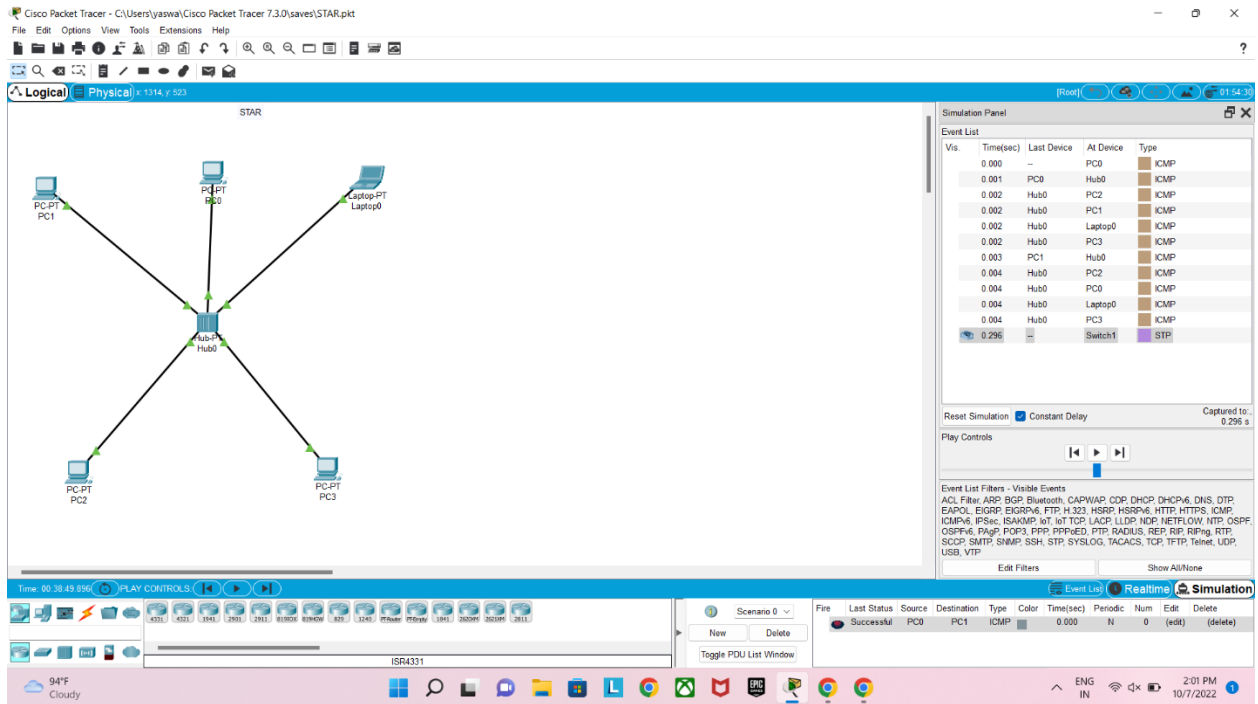
# COMPUTER NETWORKS - CSA07

## List of Experiments

1. Configuration of Network Devices using Packet Tracer (Hub, Switch, Ethernet, Broadcast)



## 2. Configuration of Topologies using Packet Tracer (Star, Mesh, Tree,) Configuration of Topologies using Packet Tracer (Star, Mesh, Tree,)



Cisco Packet Tracer - C:\Users\yaswa\Cisco Packet Tracer 7.3.0\ saves\STAR.pkt

File Edit Options View Tools Extensions Help

Logical Physical x 1971, y 529

MESH

PC-PT PC4 PC-PT PC5

2560-24T Switch1

2560-24T Switch0

2560-24T Switch2

2560-24T Switch3

PC-PT PC9 PC-PT PC10 PC-PT PC3 PC-PT PC7

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
7.656	Switch3	PC8	STP	
7.657	Switch2	PC10	STP	
7.657	Switch2	PC9	STP	
9.655	-	Switch1	STP	
9.656	Switch1	PC6	STP	
9.656	Switch1	Switch0	STP	
9.656	Switch1	Switch3	STP	
9.657	Switch0	PC4	STP	
9.657	Switch0	PC5	STP	
9.657	Switch0	Switch2	STP	
9.657	Switch3	PC7	STP	
9.657	Switch3	PC8	STP	
9.658	Switch2	PC10	STP	
9.658	Switch2	PC9	STP	
11.658	Switch1	STP		

Reset Simulation Constant Delay Captured to: 11.658 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, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAggr, POP3, RDP, RPPv6, RSTP, RADIUS, REP, RFP, RFPing, RTT, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time: 00:41:16.227 PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

Successful	PC4	PC5	ICMP	0.000	N	0	(edit)	(delete)
Successful	PC6	PC5	ICMP	0.000	N	1	(edit)	(delete)

94°F Cloudy

ENG IN 2:08 PM 10/7/2022

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x 808, y 522

TREE

PC-PT PC0

Switch-PT Switch0

Switch-PT Switch1

Switch-PT Switch2

Switch-PT Switch3

Switch-PT Switch4

Switch-PT Switch5

Switch-PT Switch6

Switch-PT Switch7

Simulation Panel

Event List

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful	PC1	PC8	ICMP	0.000	N	0	(edit)	(delete)		
Successful	PC1	PC4	ICMP	0.000	N	1	(edit)	(delete)		

Time: 00:10:34

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

Successful	PC1	PC8	ICMP	0.000	N	0	(edit)	(delete)
Successful	PC1	PC4	ICMP	0.000	N	1	(edit)	(delete)

91°F Rain off and on

ENG IN 2:34 PM 10/7/2022

### **3. Configuration of Topologies using Packet Tracer (Bus, Ring, Hybrid)**

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x 999, y 977

HYBRID

PC-PT P00 2960-24TT Switch0 PC-PT P01 2960-24TT Switch1 PC-PT P02 2960-24TT Switch2 PC-PT P03 2960-24TT Switch3 PC-PT P04 PC-PT P05 PC-PT P06

Simulation Panel

Event List

Vis	Time(sec)	Last Device	At Device	Type
	0.011	Switch3	PC5	ARP
	0.011	Switch3	PC5	ARP
	0.012	Switch0	PC0	ARP
	0.012	PC5	Switch3	ARP
	0.013	Switch3	Switch2	ARP
	0.014	Switch2	PC2	ARP
	0.014	--	PC2	ICMP
	0.015	PC2	Switch2	ICMP
	0.016	Switch2	Switch3	ICMP
	0.017	Switch3	PC6	ICMP
	0.018	PC5	Switch3	ICMP
	0.019	Switch3	Switch2	ICMP
	0.020	Switch2	PC2	ICMP
	0.545	--	Switch3	DTP
	0.546	Switch3	PC5	DTP
	1.783	--	Switch2	STP

Reset Simulation Constant Delay Captured to: 1.783 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, NCP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show AllNone

Time: 00:12:00.138 PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num
	Successful	PC0	PC5	ICMP		0.000	N	0
	Successful	PC2	PC6	ICMP		0.008	N	1

78°F Mostly cloudy

ENG IN 10:44 AM 10/8/2022

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x 1124, y 424

RING

Simulation Panel

Event List

Vis	Time(sec)	Last Device	At Device	Type
	0.001	PC1	Switch1	ICMP
	0.002	Switch0	Switch2	ICMP
	0.002	Switch1	Switch3	ICMP
	0.003	Switch2	Switch3	ICMP
	0.003	Switch3	PC3	ICMP
	0.004	Switch3	Switch1	ICMP
	0.004	PC3	Switch3	ICMP
	0.005	Switch1	PC1	ICMP
	0.005	Switch3	Switch1	ICMP
	0.006	PC1	Switch1	ICMP
	0.006	Switch1	PC1	ICMP
	0.007	Switch1	Switch3	ICMP
	0.008	Switch3	Switch2	ICMP
	0.009	Switch2	Switch0	ICMP
	0.010	Switch0	PC0	ICMP
	0.501		Switch3	STP

Reset Simulation Constant Delay Captured to: 0.501 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, MMR, NTP, NETFLOW, NTP, OSPF, OSPFv6, RARP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIPv2, RIPv3, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time: 00:06:34.884 PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num

Successful	PC0	PC1	ICMP	0.000	N	0
Successful	PC1	PC3	ICMP	0.000	N	1

80°F Mostly cloudy

Cisco Packet Tracer - C:\Users\yaswa\Cisco Packet Tracer 7.3.0\saves\STAR.plt

File Edit Options View Tools Extensions Help

Logical Physical x 3360, y 560

BUS

Simulation Panel

Event List

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful	PC14	PC15	ICMP	0.000	N	0	(edit)	(delete)		
Successful	PC15	PC16	ICMP	0.000	N	1	(edit)	(delete)		
Successful	PC18	PC18	ICMP	0.000	N	2	(edit)	(delete)		

Time: 00:02:13

Scenario 0

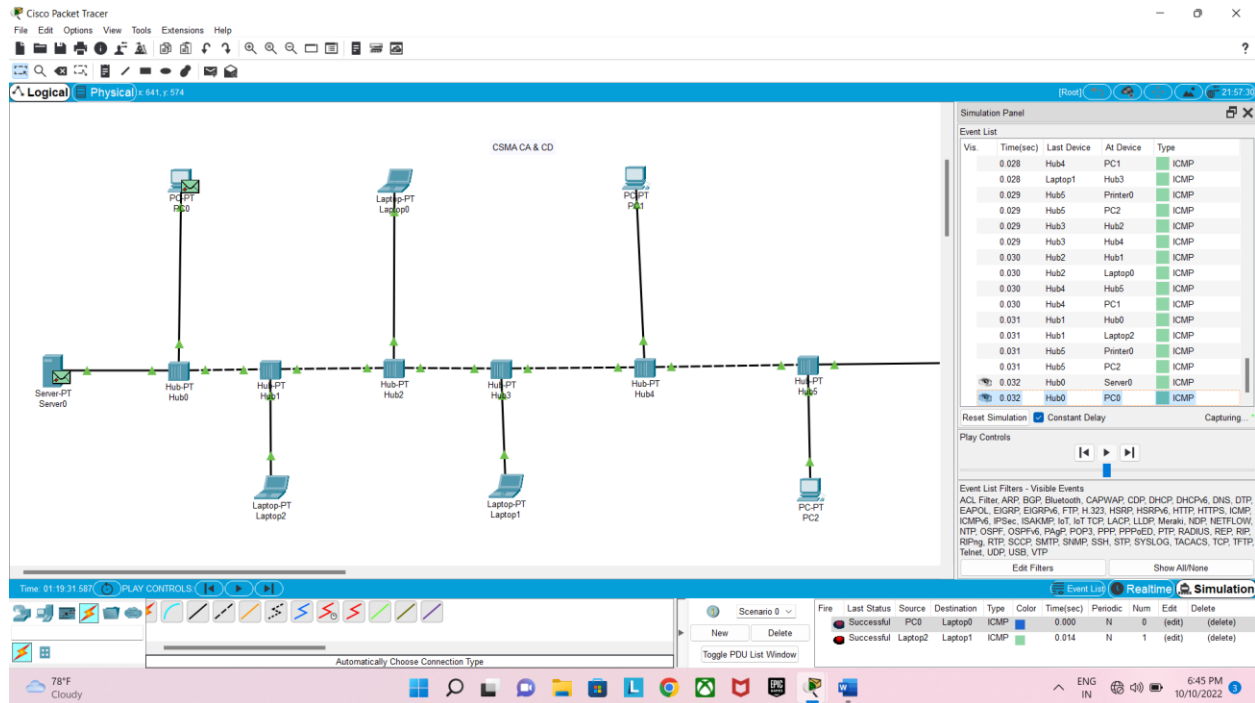
New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

91°F Rain off and on

#### 4. Data Link Layer Traffic Simulation using Packet Tracer Analysis of CSMA/CD& CSMA/CA



## 5. Data Link Layer Traffic Simulation using Packet Tracer Analysis of ARP

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical 2785, 7128

DATA LINK LAYER

Server-PT Server0

Switch1

PC-PT PC0

PC-PT PC1

Simulation Panel

Event List

Vis	Time(sec)	Last Device	At Device	Type
	0.060	Switch1	PC1	STP
	0.060	Switch1	Server0	STP
	0.060	Switch1	PC0	STP
	0.060	--	Server0	ICMP
	0.060	--	Server0	ARP
	0.061	Server0	Switch1	ARP
	0.062	Switch1	PC0	ARP
	0.062	Switch1	PC1	ARP
	0.063	PC1	Switch1	ARP
	0.064	Switch1	Server0	ARP
	0.064	--	Server0	ICMP
	0.065	Server0	Switch1	ICMP
	0.066	Switch1	PC1	ICMP
	0.067	PC1	Switch1	ICMP
	0.068	Switch1	Server0	ICMP
	10.063	Switch1	Switch1	STP

Reset Simulation Constant Delay Captured to: 10.063 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, HTTPv6, ICMP, ICMPv6, IPsec, ISAKMP, IOT, IOT TCP, LACP, LLDP, Mangle, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Scenario 0

New Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC1	ICMP		0.060	N	0	(edit)	(delete)
	Successful	Server0	PC1	ICMP		8.060	N	1	(edit)	(delete)

Time: 00:12:02.526 PLAY CONTROLS

89°F Cloudy

ENG IN 2:15 PM 10/9/2022



## 6. Static Routing using Packet Tracer

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical 11775, 7489

STATIC ROUTING

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.000	--	PC2	ICMP
	0.000	--	PC0	ICMP
	0.001	PC2	Switch4	ICMP
	0.001	PC0	Switch3	ICMP
	0.002	Switch4	PC3	ICMP
	0.002	Switch3	PC1	ICMP
	0.003	PC3	Switch4	ICMP
	0.003	PC1	Switch3	ICMP
	0.004	Switch4	PC0	ICMP
	0.004	Switch3	PC2	ICMP
	0.234	--	Switch3	STP

Reset Simulation ☒ Constant Delay Captured to: 0.234 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, LDP, 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, Telnet, UDP, USB, VDP

Edit Filters Show All/None

Scenario 0

New Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num
	Successful	PC2	PC3	ICMP		0.000	N	0
	Successful	PC0	PC1	ICMP		0.000	N	1

Time: 00:32:30.743 PLAY CONTROLS

88°F Cloudy

12:00 PM 10/8/2022

## 7. Dynamic Routing using Packet Tracer ( OSPF )

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical v. 7.00, r. 82

**DYNAMIC ROUTING**

Router0 Router1 Router2

Switch0 Switch1

PC0 PC1

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.002	PC0	Switch0	ICMP
	0.002	Switch0	Router0	ICMP
	0.002	Switch1	PC1	ICMP
	0.003	Switch0	Router0	ICMP
	0.003	Router0	Router1	ICMP
	0.003	PC1	Switch1	ICMP
	0.004	Router0	Router1	ICMP
	0.004	Router1	Router0	ICMP
	0.004	Switch1	Router1	ICMP
	0.005	Router0	Router2	ICMP
	0.005	Router0	Switch0	ICMP
	0.006	Router2	Router1	ICMP
	0.006	Switch0	PC0	ICMP
	0.007	Router1	Router0	ICMP
	0.008	Router0	Switch0	ICMP
	0.009	Switch0	PC0	ICMP

Reset Simulation ☒ Constant Delay Captured to: 0.009 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, HTTPv6, ICMP, ICMPv6, IPsec, ISAKMP, ISt, ISt TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RIPv3, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Time: 00:55:41.14s PLAY CONTROLS

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

Successful	PC0	Router1	ICMP		0.000	N	0	(edit)	(delete)
Successful	PC0	Router2	ICMP		0.000	N	1	(edit)	(delete)
Successful	Router1	PC1	ICMP		0.000	N	2	(edit)	(delete)

89°F Cloudy

ENG IN 1:55 PM 10/10/2022

## 8. Subnetting – Class C Addressing

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical 1407, 7/707

SUBNETTING CLASS C ADDRESS

SUBNETTING 1

SUBNETTING 2

SR4331 Router0

Switch0

PC-PT PC0

PC-PT PC1

PC-PT PC2

PC-PT PC3

PC-PT PC4

PC-PT PC5

Simulation Panel

Event List

Vis	Time(sec)	Last Device	At Device	Type
	0.000	PC0	Switch0	ICMP
	0.001	PC0	Switch0	ICMP
	0.001	PC1	Switch0	ICMP
	0.002	Switch0	Router0	ICMP
	0.002	Switch0	Router0	ICMP
	0.003	Switch0	Router0	ICMP
	0.003	Router0	Switch0	ICMP
	0.004	Router0	Switch0	ICMP
	0.004	Switch0	PC0	ICMP
	0.005	Switch0	PC1	ICMP
	0.319	Switch1	Router0	STP
	0.320	Switch1	PC4	STP
	0.320	Switch1	PC5	STP
	0.320	Switch1	PC3	STP
	0.993	Switch0	Switch0	STP

Reset Simulation Constant Delay Captured to: 0.993 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, HTTPv6, ICMP, ICMPv6, IPsec, ISAKMP, ISt, ISt TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RIPv3, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

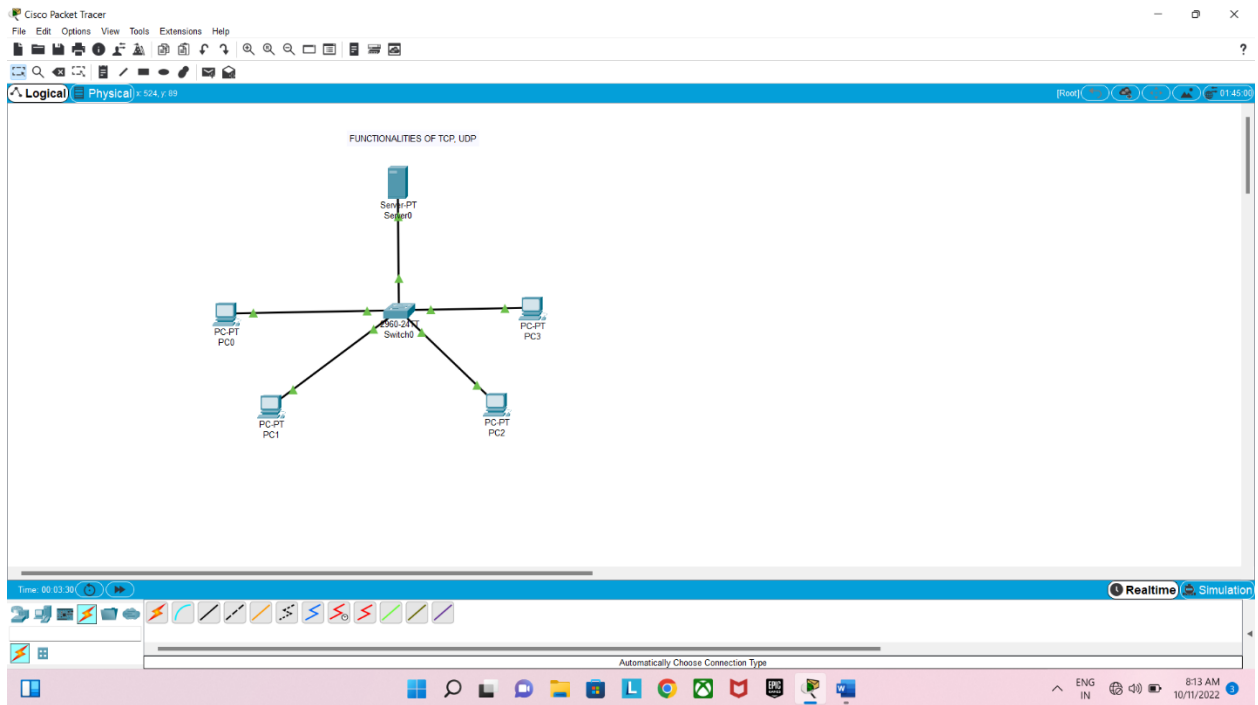
Successful	PC0	Router0	ICMP	0.000	N	0	(edit)	(delete)
Successful	PC1	Router0	ICMP	0.000	N	1	(edit)	(delete)

Time: 00:10:34.221 PLAY CONTROLS

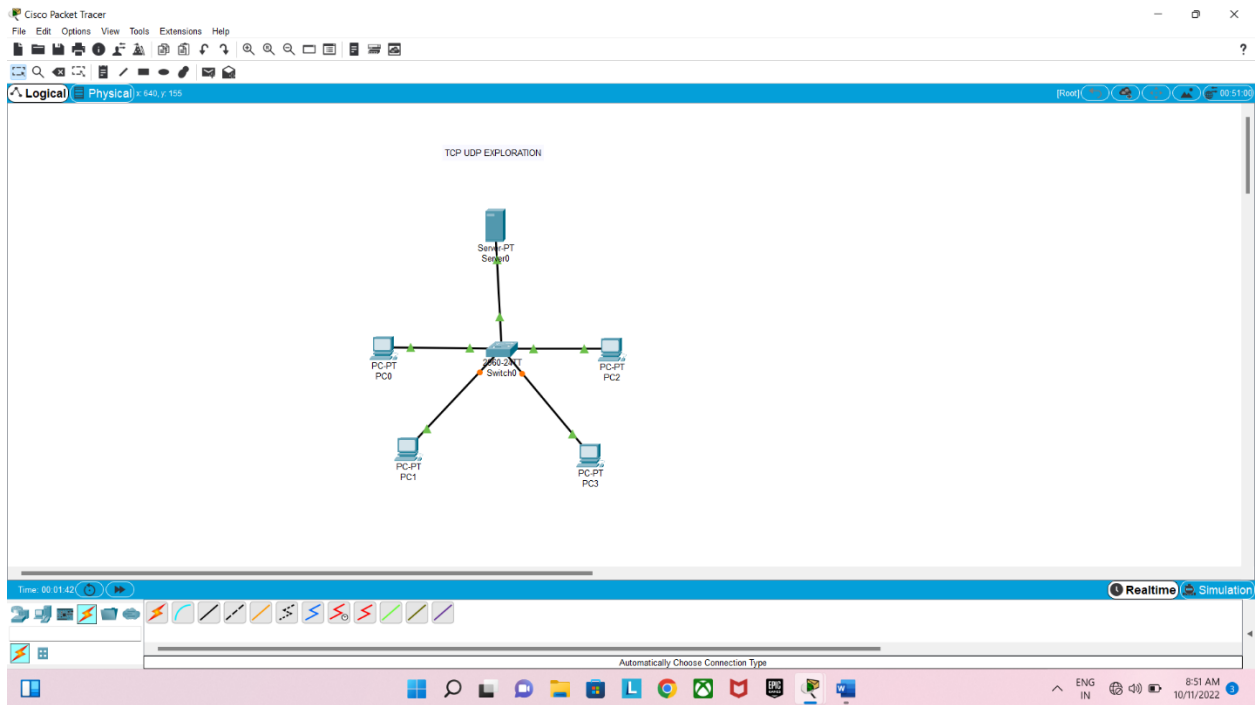
78°F Cloudy

ENG IN 7:00 PM 10/10/2022

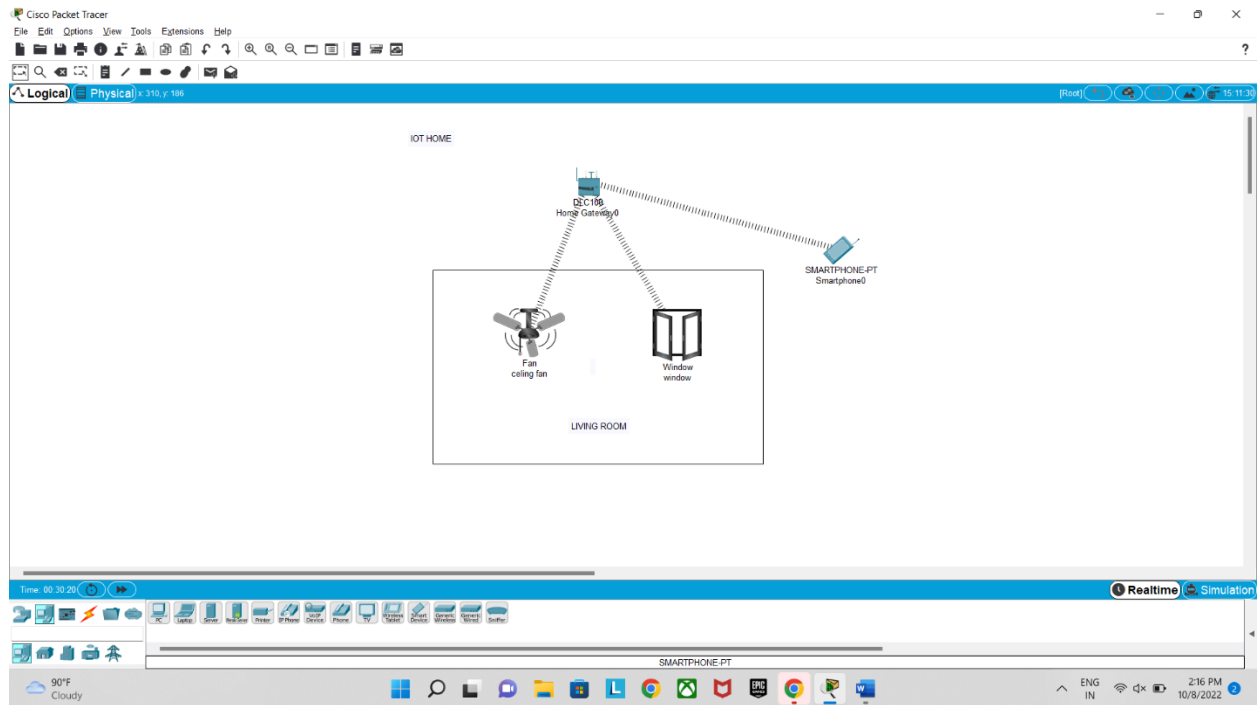
## 9. Functionalities of TCP, UDP



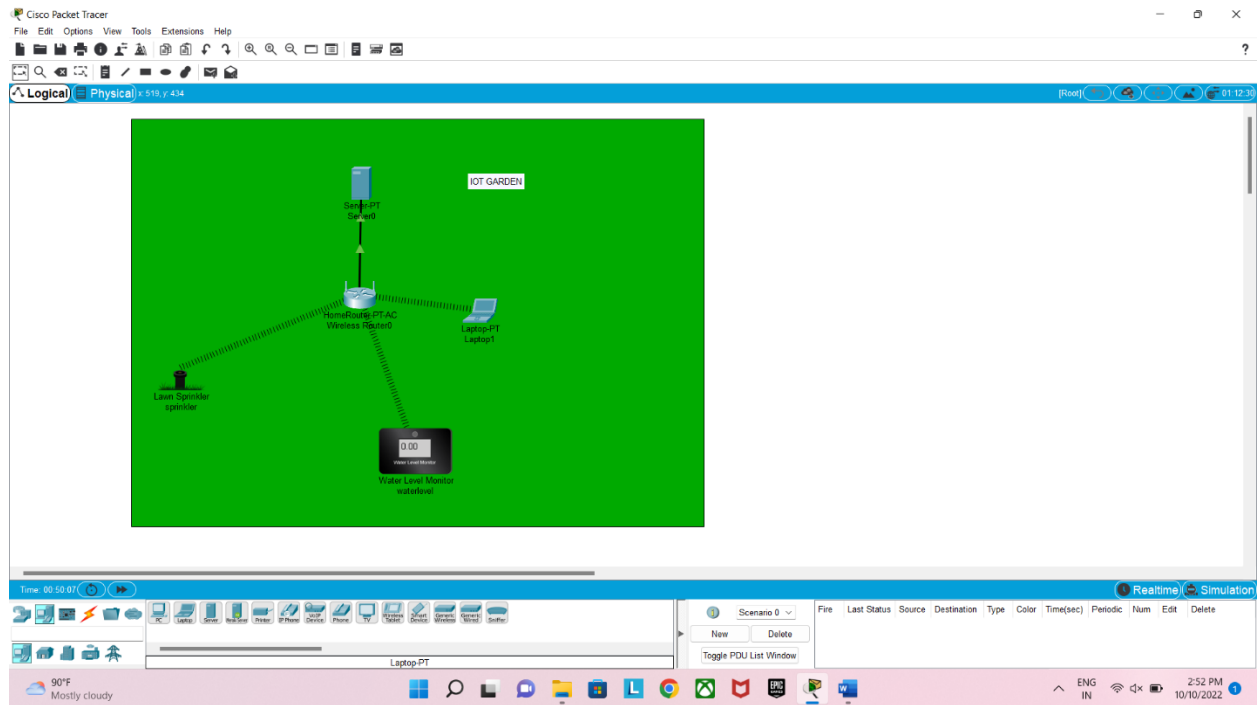
## 10. TCP, UDP Exploration Solution



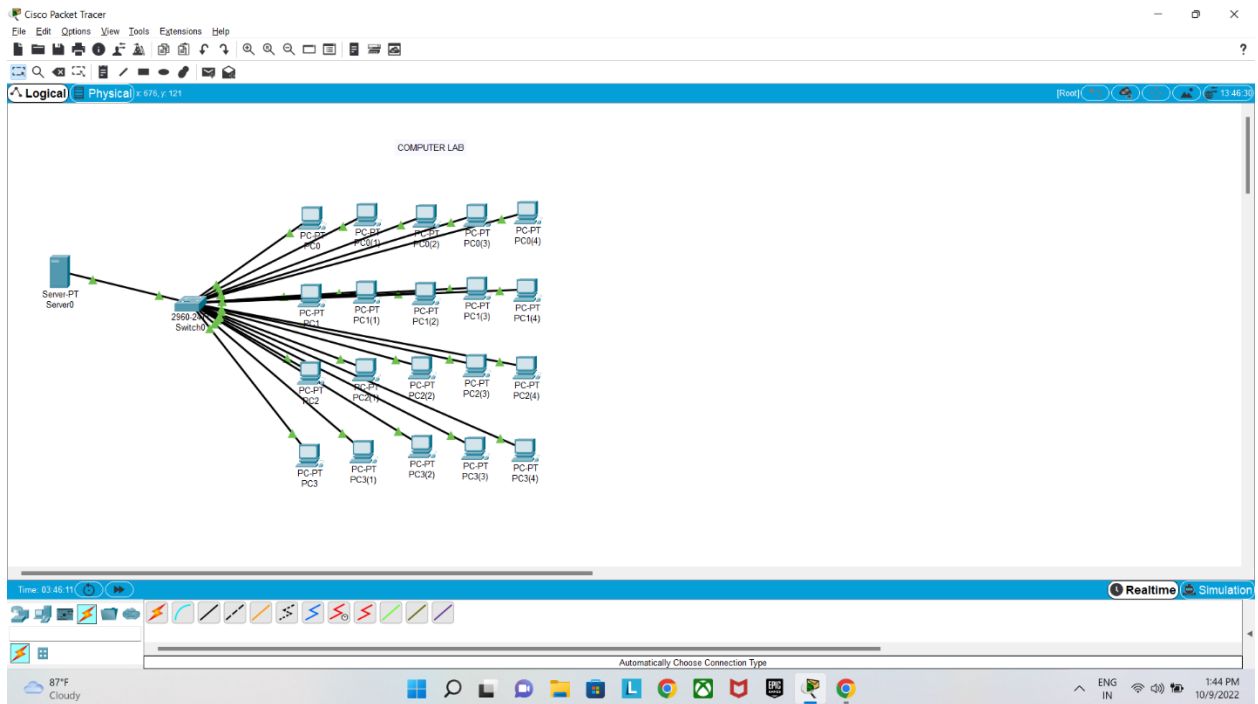
## 11. IOT Based Smart Home Using Cisco Packet Tracer



## 12. Smart Garden in Cisco Packet Tracer

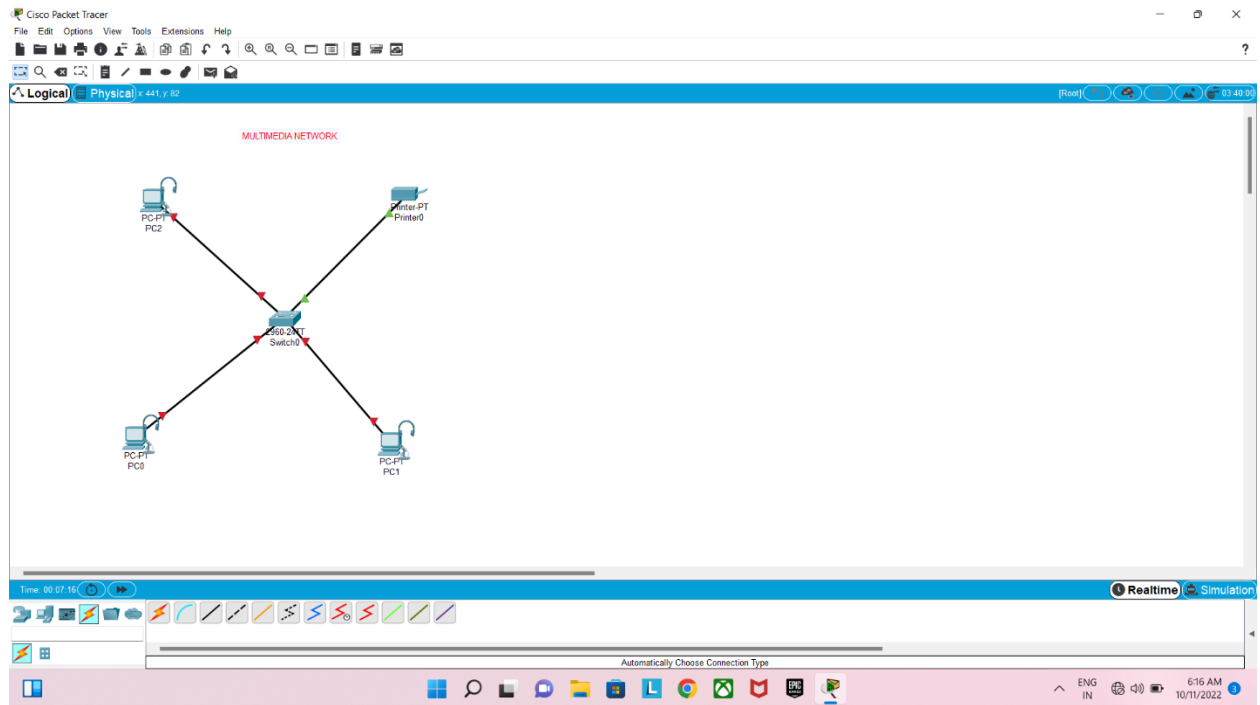


### 13. Make Computer Lab in Cisco Packet Tracer

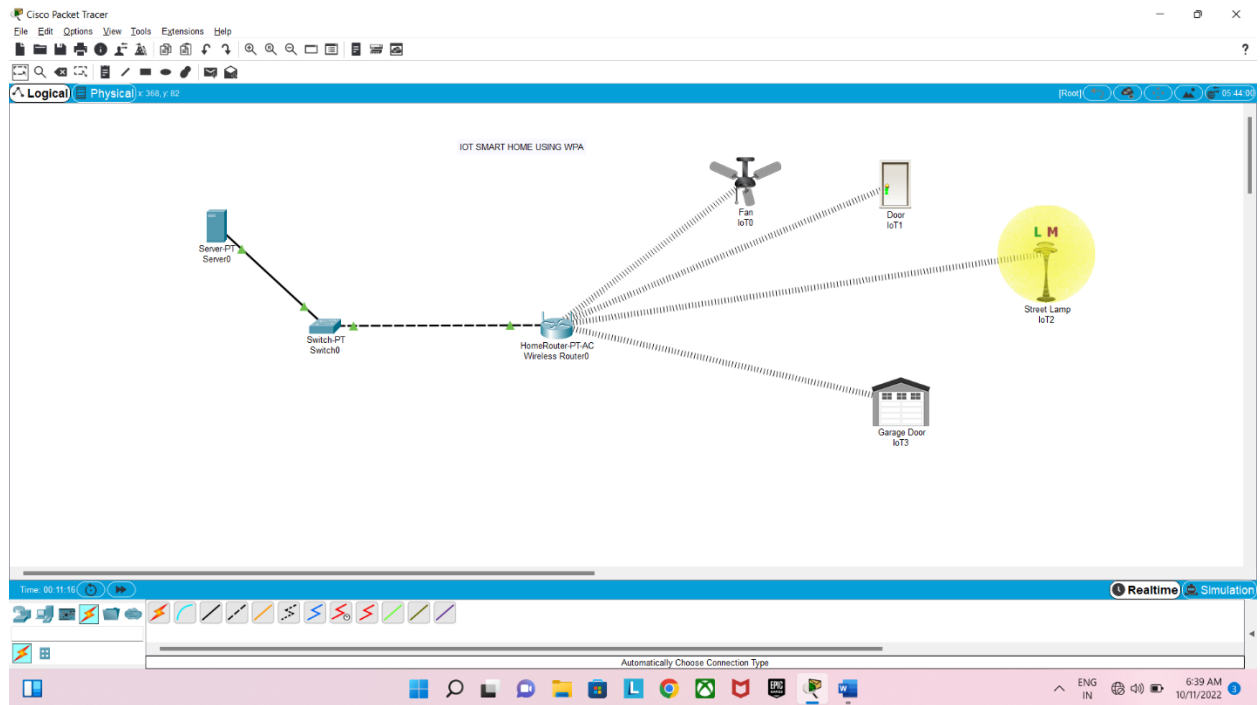




## 14. Simulate a Multimedia Network

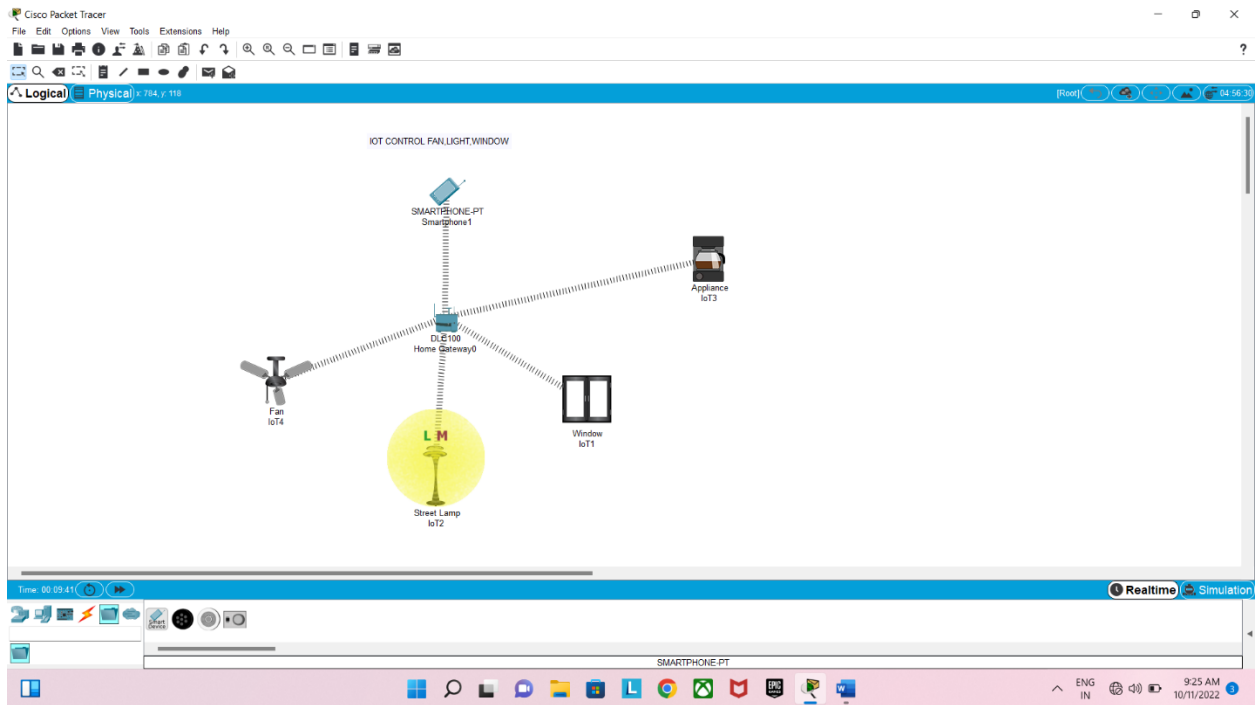


## 15. IOT Based Smart Home using WPA Security & Radius Server

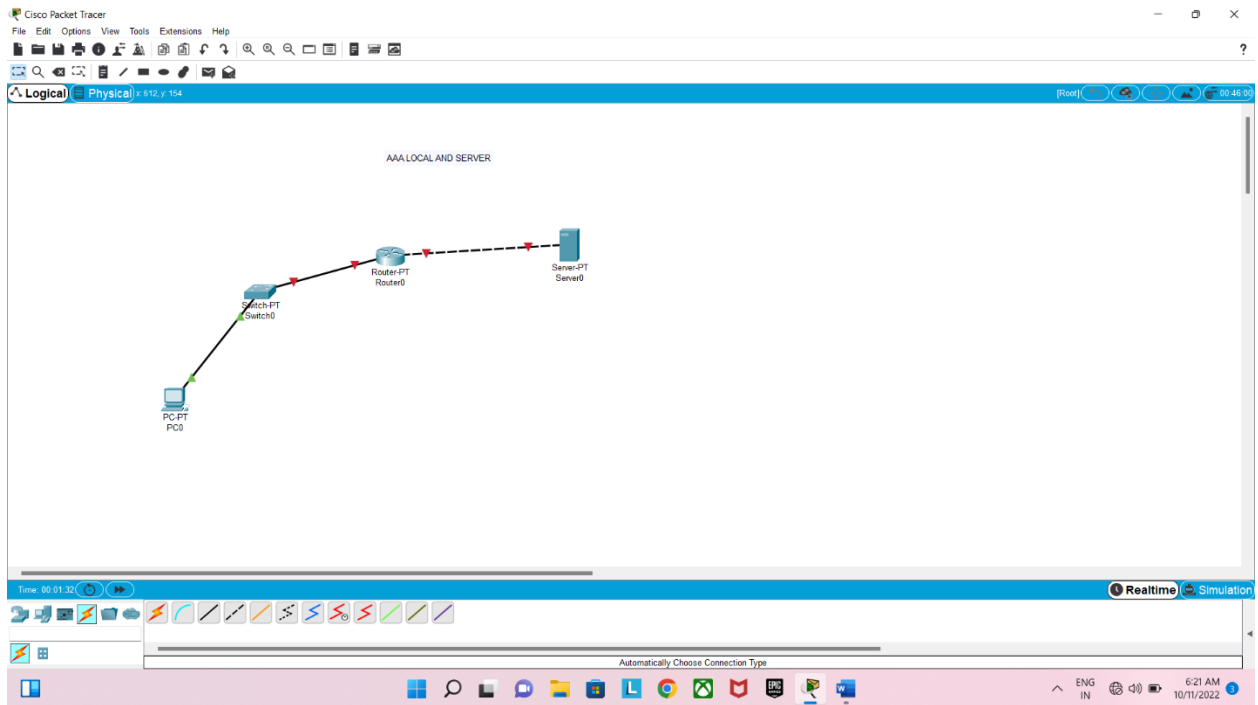


## **16. WLAN Using Cisco Packet Tracer**

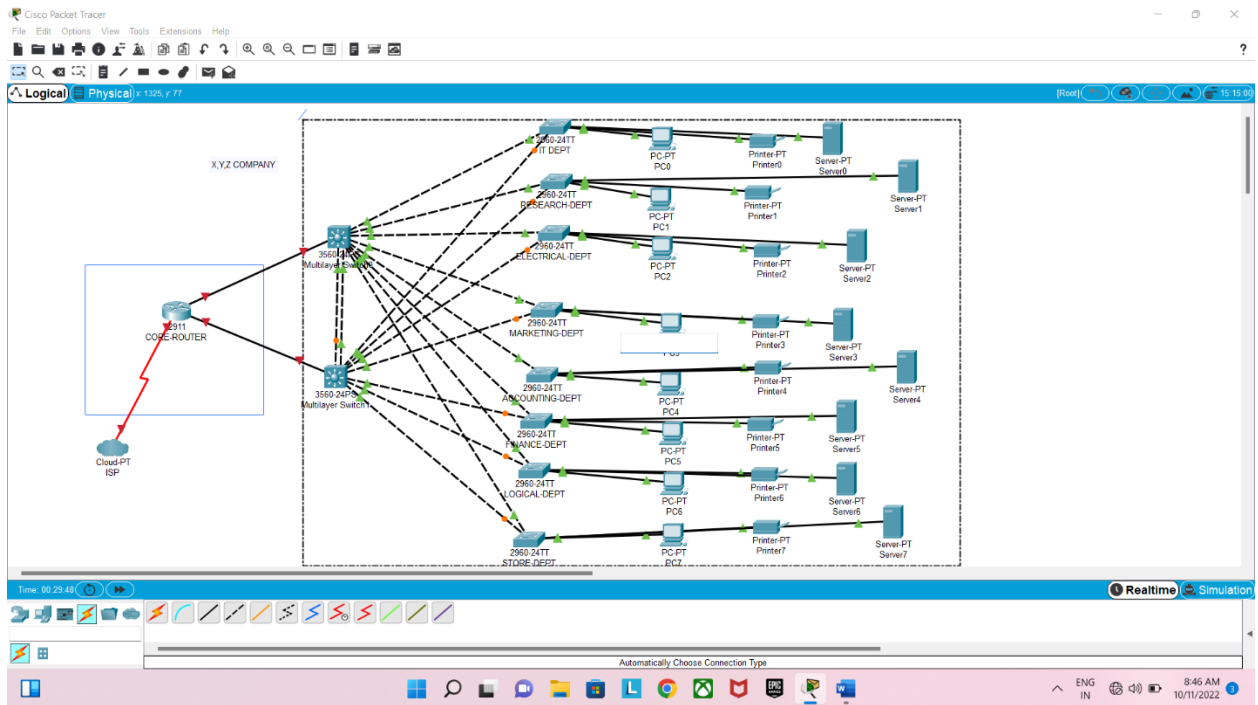
## 17. Control of Fan, Light, Window & Application of Using Cisco Packet Tracer



## 18. AAA Local & Server Based Authentication Configuration in Cisco Packet Tracer



## 19. Simulating X,Y,Z Company Network Design



## 20. IOT Devices in Networking Using Cisco Packet Tracer

