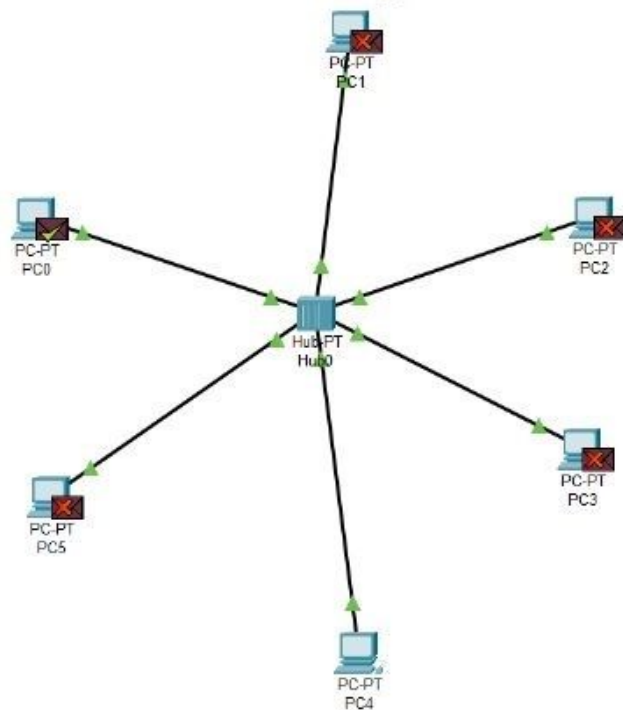


## 1. Configuration of Network Devices using Packet Tracer (Hub, Switch, Ethernet, Broadcast)



Name: K Soni Priya  
Reg no: 192224236

## Simulation Panel

## Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.004	Hub0	PC2	ARP
	0.004	Hub0	PC3	ARP
	0.004	Hub0	PC5	ARP
	0.004	--	PC0	ICMP
	0.005	PC0	Hub0	ICMP
	0.006	Hub0	PC1	ICMP
	0.006	Hub0	PC2	ICMP
	0.006	Hub0	PC3	ICMP
	0.006	Hub0	PC4	ICMP
	0.006	Hub0	PC5	ICMP
	0.007	PC4	Hub0	ICMP
	0.008	Hub0	PC0	ICMP
	0.008	Hub0	PC1	ICMP
	0.008	Hub0	PC2	ICMP
	0.008	Hub0	PC3	ICMP
	0.008	Hub0	PC5	ICMP

Reset Simulation ☒ Constant Delay

Capturing...

## 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, 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

Time: 00:06:31.347 PLAY CONTROLS:



(Select a Device to Drag and Drop to the Workspace)

Scenario 0

New

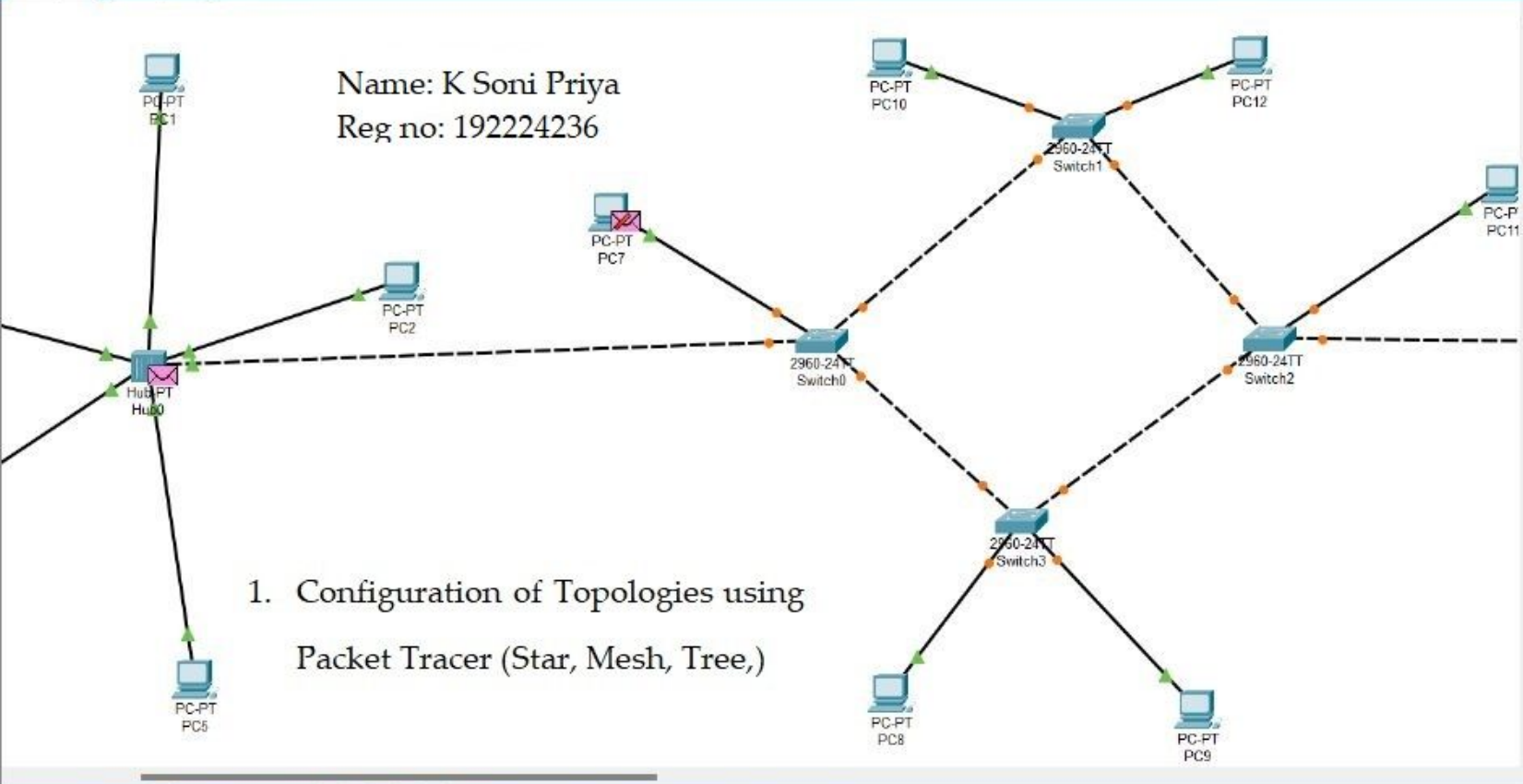
Delete

Toggle PDU List Window

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

Successful		PC0	PC4	ICMP		0.000				(delete)
------------	--	-----	-----	------	--	-------	--	--	--	----------

Cristiano Ronaldo 7  
Internet access



**Simulation Panel**

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	9.000	Switch2	Hub1	STP
	9.000	Switch2	Switch1	STP
	9.001	Switch3	PC8	STP
	9.001	Switch3	PC9	STP
	9.001	Switch3	Switch0	STP
	9.001	Hub1	PC16	STP
	9.001	Hub1	PC13	STP
	9.001	Hub1	Hub2	STP
	9.001	Switch1	PC10	STP
	9.001	Switch1	PC12	STP
	9.001	Switch1	Switch0	STP
	9.002	Hub2	PC14	STP
	9.002	Hub2	PC17	STP
	9.002	Hub2	Hub3	STP
	9.002	Switch0	Hub0	STP
	9.002	Switch0	PC7	STP

Reset Simulation ☒ Constant Delay Captured to: 9.002 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, 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
Failed	Failed	PC1	PC15	ICMP		0.000	N	1	(edit)	(delete)
Failed	Failed	PC1	PC15	ICMP		0.000	N	2	(edit)	(delete)
Successful	Successful	PC13	PC17	ICMP		0.000	N	3	(edit)	(delete)

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical 1223 y 542 [Root] 22:48:30

Activity Wizard  
Answer Network

Time: 00:49:50

Copper Straight-Through

Scenario 0

Now Delete

Toggle POUI List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
●	Successful	Server0	Printer1	ICMP	Red	0.000	N	0	(edit)	(delete)

Name: K Soni Priya  
Reg no: 192224236

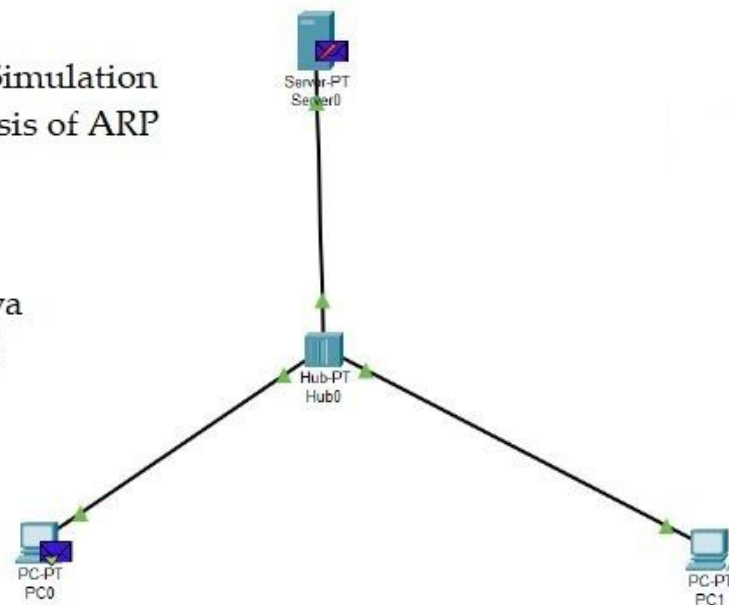
# 1. Data Link Layer Traffic Simulation using Packet Tracer Analysis of CSMA/CD & CSMA/CA





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

Name: K Soni Priya  
Reg no: 192224236



## Simulation Panel

## Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.000	--	PC0	ICMP
	0.000	--	PC0	ARP
	0.001	PC0	Hub0	ARP
	0.002	Hub0	Server0	ARP
	0.002	Hub0	PC1	ARP
	0.003	PC1	Hub0	ARP
	0.004	Hub0	Server0	ARP
	0.004	Hub0	PC0	ARP
	0.004	--	PC0	ICMP
	0.005	PC0	Hub0	ICMP
	0.006	Hub0	Server0	ICMP
	0.006	Hub0	PC1	ICMP
	0.007	PC1	Hub0	ICMP
	0.008	Hub0	Server0	ICMP
	0.008	Hub0	PC0	ICMP

Reset Simulation

☒ Constant Delay

Capturing...

## 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, 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

Time: 00:19:12.820 PLAY CONTROLS:



(Select a Device to Drag and Drop to the Workspace)

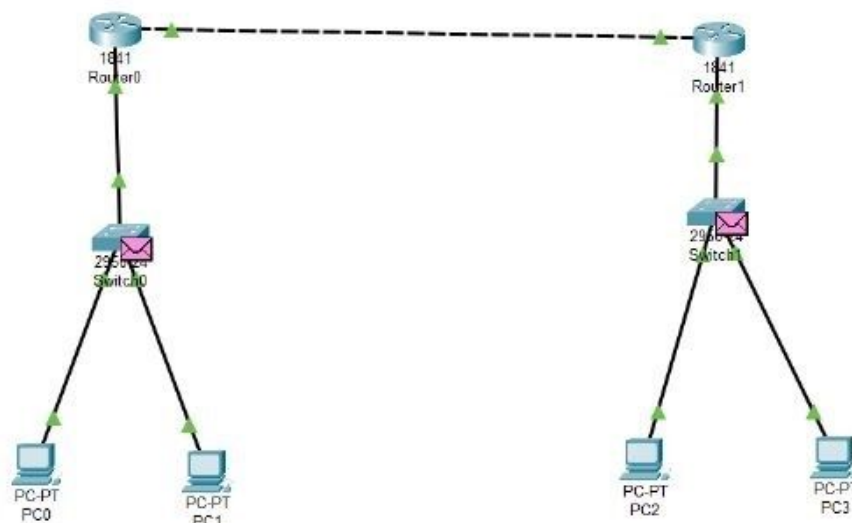
Scenario 0

New

Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC1	ICMP		0.000	N	0	(edit)	(delete)



## 6.Static Routing using Packet Tracer

Name: K Soni Priya  
Reg no: 192224236

### Simulation Panel

#### Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.005	Switch1	PC2	ICMP
	0.006	PC2	Switch1	ICMP
	0.007	Switch1	Router1	ICMP
	0.008	Router1	Router0	ICMP
	0.009	Router0	Switch0	ICMP
	0.010	Switch0	PC0	ICMP
	0.964	--	Switch1	STP
	0.965	Switch1	PC2	STP
	0.965	Switch1	Router1	STP
	0.965	Switch1	PC3	STP
	0.967	--	Switch0	STP
	0.968	Switch0	PC1	STP
	0.968	Switch0	PC0	STP
	0.968	Switch0	Router0	STP
	2.964	--	Switch1	STP
	2.964	--	Switch0	STP

Reset Simulation ☒ Constant DelayCaptured to:  
2.964 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, Telnet, UDP, USB, VTP

Edit Filters

Show All/None

Time: 00:40:43.202 PLAY CONTROLS:

Event List Realtime Simulation



Automatically Choose Connection Type

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC2	ICMP		0.000	N	0	(edit)	(delete)

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x 789, y 505 [Root] 11:56:30

network a 192.168.1.0

network b 155.165.1.0

Router-PT Router0

Router-PT Router1

Router-PT Router2

Switch-PT Switch0

Switch-PT Switch1

PC-PT PC0

PC-PT PC1

20.0.0.0

10.0.0.0

30.0.0.0

7.Dynamic Routing using Packet Tracer ( OSPF)

Name: K Soni Priya

Reg no: 192224236

Time: 00:23:38

Realtime Simulation

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)

Automatically Choose Connection Type

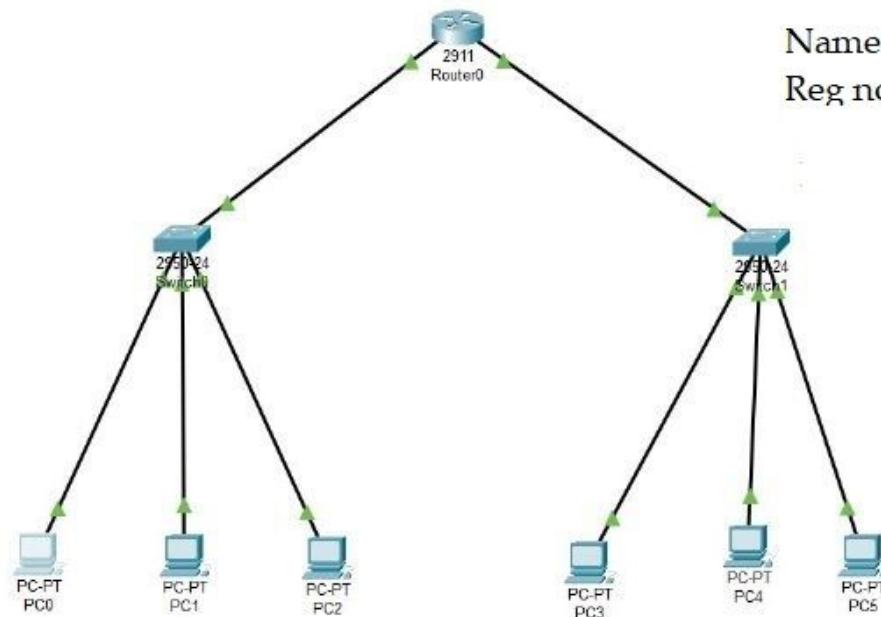
31°C Mostly cloudy

Search

10-08-2023 10:01

## 8. Subnetting – Class C Addressing

Name: K Soni Priya  
Reg no: 192224236



PC0

Physical Config Desktop Programming Attributes

Command Prompt

```

Pinging 192.168.10.131 with 32 bytes of data:
Request timed out.
Reply from 192.168.10.131: bytes=32 time<1ms TTL=127
Reply from 192.168.10.131: bytes=32 time<1ms TTL=127
Reply from 192.168.10.131: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.10.131:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.10.131

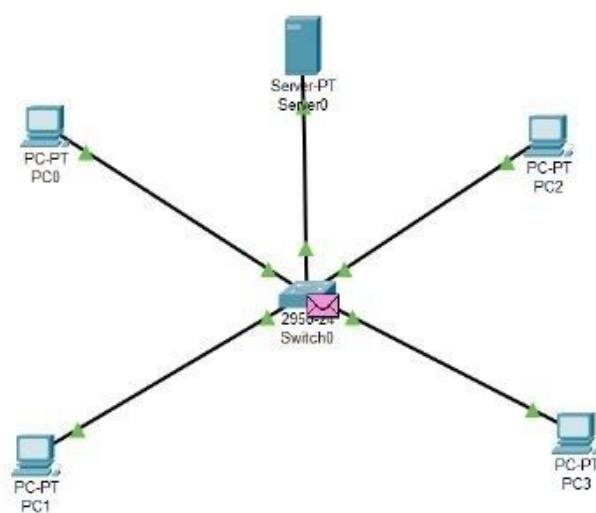
Pinging 192.168.10.131 with 32 bytes of data:
Reply from 192.168.10.131: bytes=32 time<1ms TTL=127
Reply from 192.168.10.131: bytes=32 time<1ms TTL=127
Reply from 192.168.10.131: bytes=32 time<1ms TTL=127
Reply from 192.168.10.131: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.10.131:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
  
```

Top





## 9.Functionalities of TCP, UDP

Name: K Soni Priya

Reg no: 192224236

### Simulation Panel

#### Event List

Vis.	Time(sec)	Last Device	At Device	Type
	4.478	Switch0	PC3	STP
	4.478	Switch0	PC0	STP
	4.478	Switch0	PC1	STP
	6.478	--	Switch0	STP
	6.479	Switch0	PC2	STP
	6.479	Switch0	Server0	STP
	6.479	Switch0	PC3	STP
	6.479	Switch0	PC0	STP
	6.479	Switch0	PC1	STP
	8.482	--	Switch0	STP
	8.483	Switch0	PC2	STP
	8.483	Switch0	Server0	STP
	8.483	Switch0	PC3	STP
	8.483	Switch0	PC0	STP
	8.483	Switch0	PC1	STP
	10.486	--	Switch0	STP

Reset Simulation ☒ Constant Delay

Captured to: 10.486 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, Telnet, UDP, USB, VTP

Edit Filters

Show All/None

Time: 00:53:54.463

PLAY CONTROLS:

Event List Realtime Simulation



Copper Straight-Through

Scenario 0

New

Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC3	PC0	ICMP		0.000	N	0	(edit)	(delete)

34°C  
Near record

Search

ENG IN 12:30 10-08-2023



Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x 147, y: 312 [Root] 17:14:30

```
graph TD; Switch[2950-24 Switch] --- Server[Server-PT multi server]; Switch --- Soni[PC-PT http client soni]; Switch --- Jaanu[PC-PT email client jaanu]; Switch --- Ftp[PC-PT ftp client]; Switch --- Dns[PC-PT dns client];
```

10. TCP, UDP Exploration Solution

Name: K Soni Priya  
Reg no: 192224236

Time: 00:34:24

Realtime Simulation

Scenario 0

New Delete

Toggle PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	http c...	email client	ICMP		0.000	N	0	(edit)	(delete)

Copper Straight-Through

31°C Mostly cloudy

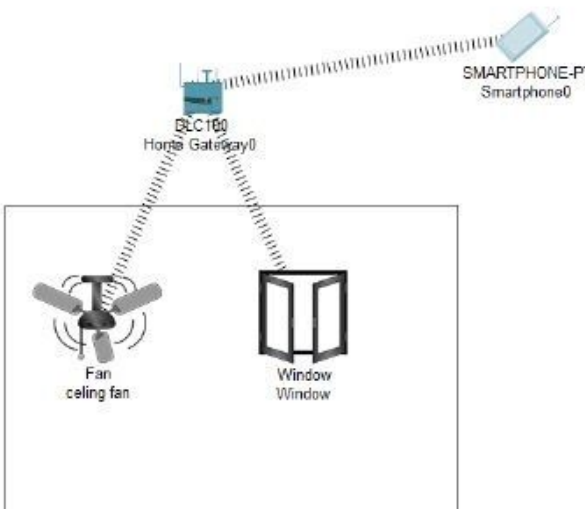
Search

10:37 10-08-2023

Cisco Packet Tracer

File Edit Options View Tools Extensions Help

Logical Physical x 1232 y 683 [Root] 09:50:30



Smartphone0

Physical Config Desktop Programming Attributes

IoT Monitor

IoT Server - Devices Home | Conditions | Editor | Log Out

● ceiling fan (PTT0810HW1F-) Ceiling Fan

Status Off Low High

● Window (PTT0810PNC2-) Window

On

Top

Time 01:07:41 Realtime Simulation

PC Laptop Server Wireless Router IP Phone VoIP Device Phone TV Smart Device Generic Wireless Generic Wired Switcher

SMARTPHONE-PT

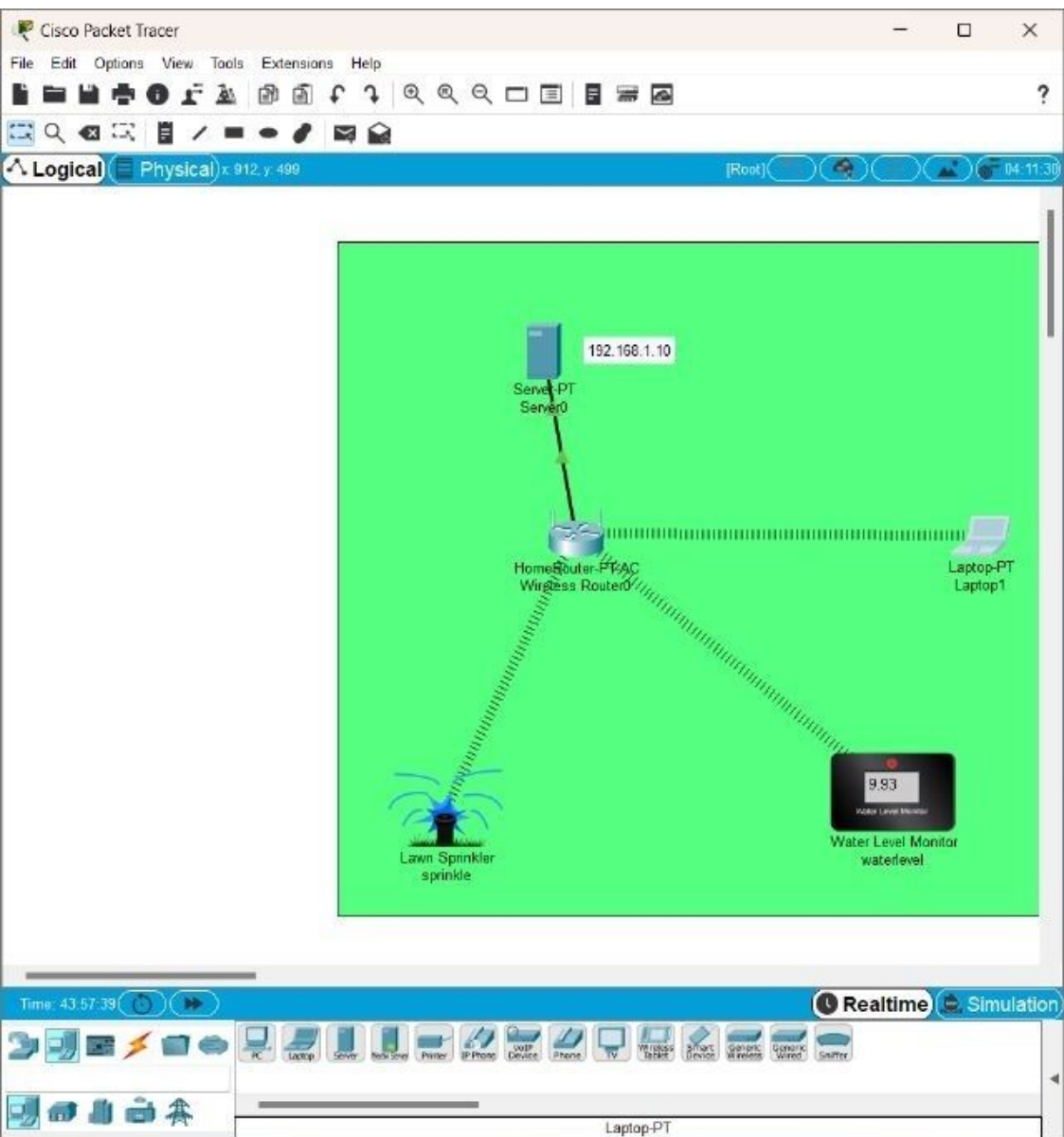
Scenario 0 New Delete Toggle PDU List Window

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

35°C Hot weather Search 13:38 10-08-2023

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

Name: K Soni Priya  
Reg no: 192224236



Laptop1

Physical Config Desktop Programming Attributes

Web Browser

< > URL http://192.168.1.10/home.html Go Stop

IoT Server - Devices Home | Conditions | Editor | Log Out

● sprinkle (PTT0810L5FN-)	Lawn Sprinkler
Status	<div></div>
● waterlevel (PTT08101PB8-)	Water Level Monitor
Water Level	9.9 cm

12. Smart Garden in Cisco Packet Tracer

Name: K Soni Priya  
Reg no: 192224236

Top