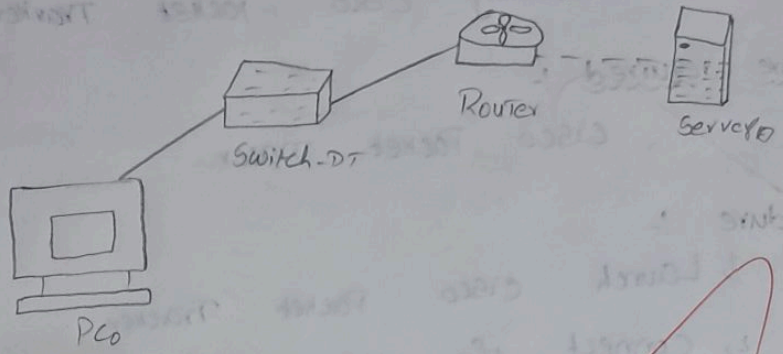
NETWORK DIAGRAM:

IoT based AAA local and server based authentication.



Output :-

SNTP

Simple Screen Discovery Protocol :-

M-search * HTTP/1.1 \r\n

HOST : 239.255.255.250 : 1900 \r\n

MAN : "ssdp : discover" \r\n

mx : 1 \r\n

ST : urn : dial - multiscreen -org : service.

: dial : \r\n

Internet control message Protocol :-

TYPE : 11

Code : 0

check sum : 0x C506 (correct)

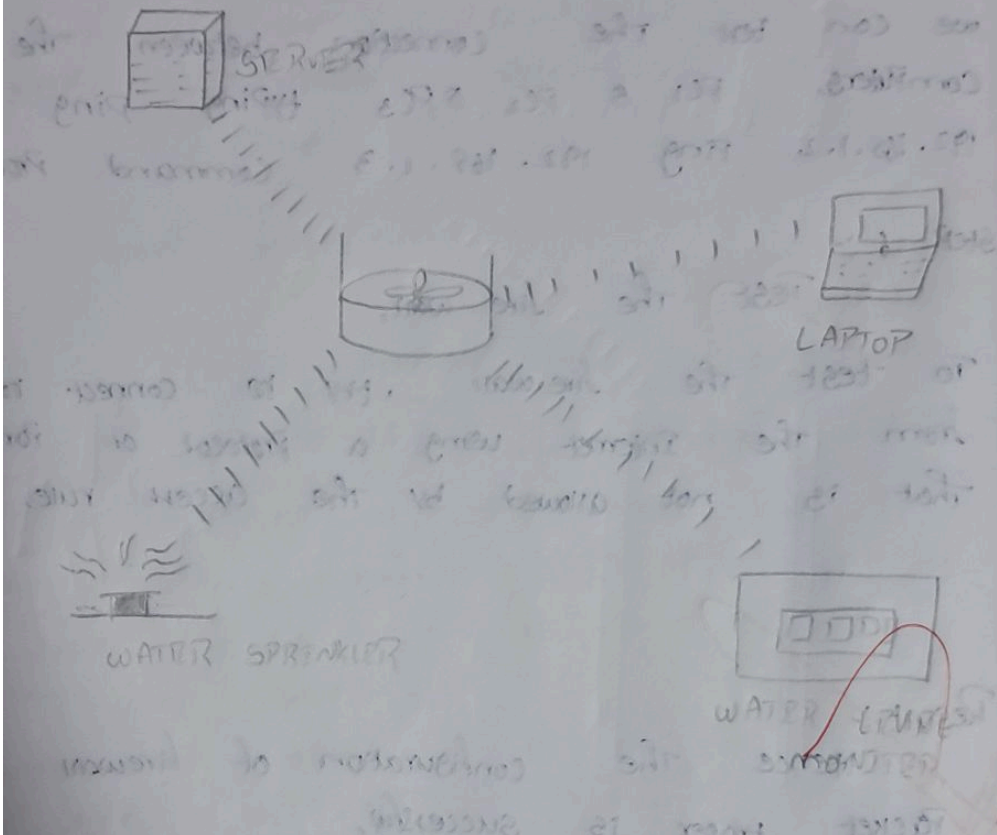
(check sum STATUS : Good)

Unused : 00000000

Internet Protocol version . SRC : 172.18.109.103

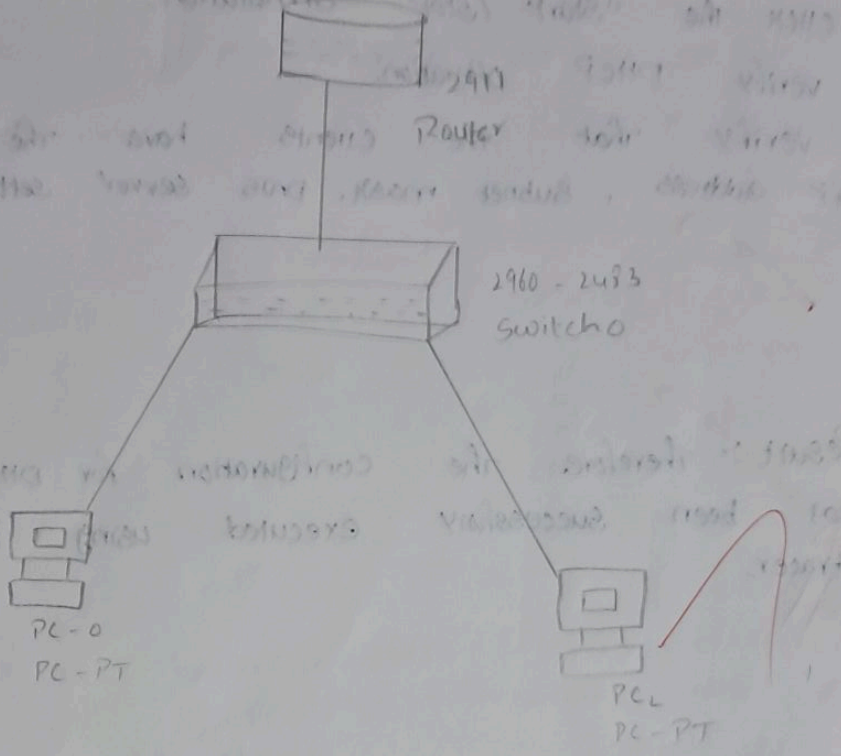
DST : 172.18.61.

Implementation of IoT based Smart Gardning



Network diagram

Configuration of Firewall



Output table :-

Last Status	Source	Desitination	Type
Failed	PC_0	PC_1	ICMP
Failed	PC_1	PC_0	ICMP

Output :- TCP & UDP

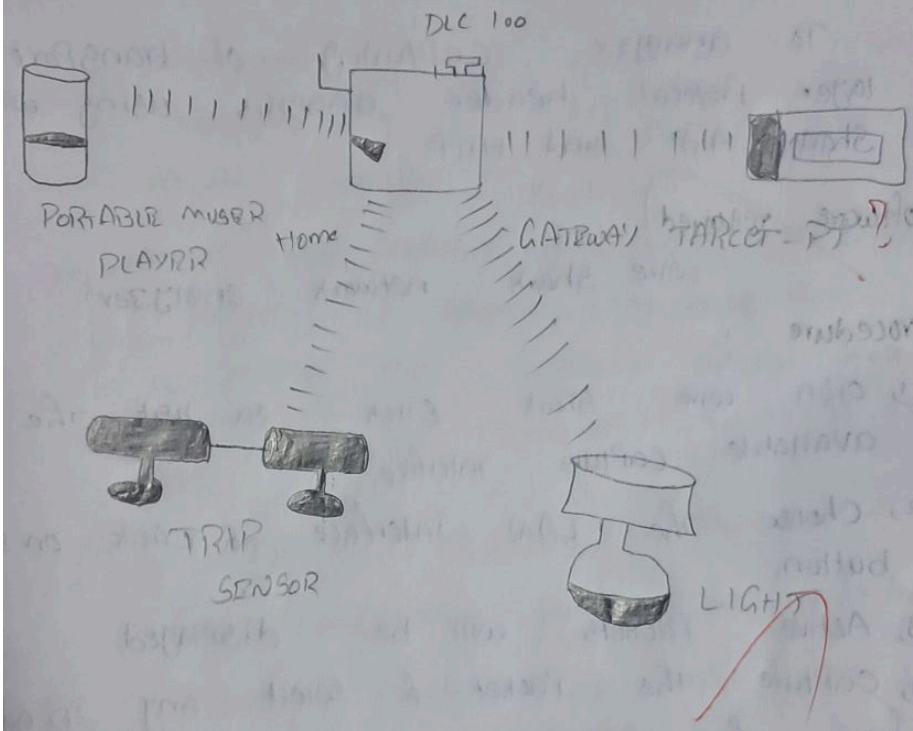
Transmission control Protocol . Src Port : 443 . Dst Port : 57641.

Source Port : 443
Destination Port : 57641
[Stream index : 31]
[Conversation completeness : Incomplete (12)]
[TCP segment Len : 0]
Sequence number : 1
Sequence number (raw) : 42143140 57
Acknowledgement numser : 36
Acknowledgement number : 1517824367
0101 . . . = Header length : 20 bytes (5)
Flags : 0x010 (ACK)
Windows : 501

USER DATAGRAM PROTOCOL . SrcPort : 37709, Dst Port : 10001

Source Port : 37709
Destination Port : 10001
length : 278
Check sum : 0xc3e4 [unverified]
[Check sum Status : unverified]
[Stream index : 69]
[Stream Packet number : 1]
[Time Stamps]
UDP Payload (270 bytes).

Implementation of IOT devices in Networking



Output :- ARP & HTTP

ADDRESS RELATION PROTOCL

Hardware type : Ethernet (1)

Protocol type : IPV4 (0x0800)

Hard wave size : 6

Protocol size : 4

OPcode : request (1)

Sender mac address : Hik Vision DS-14:7C:4

Sender IP addres : 172.18.96.14.

Target MAC addres :- 00:00:00-00:00:00

Target IP address : 172.18.96.210

HYPER TEXT TRANSFER PROTOCL :-

Get /connect Test .txt .HTTP/1.1 \r\n

Cache - Control : no-cache \r\n

Connection : close \r\n

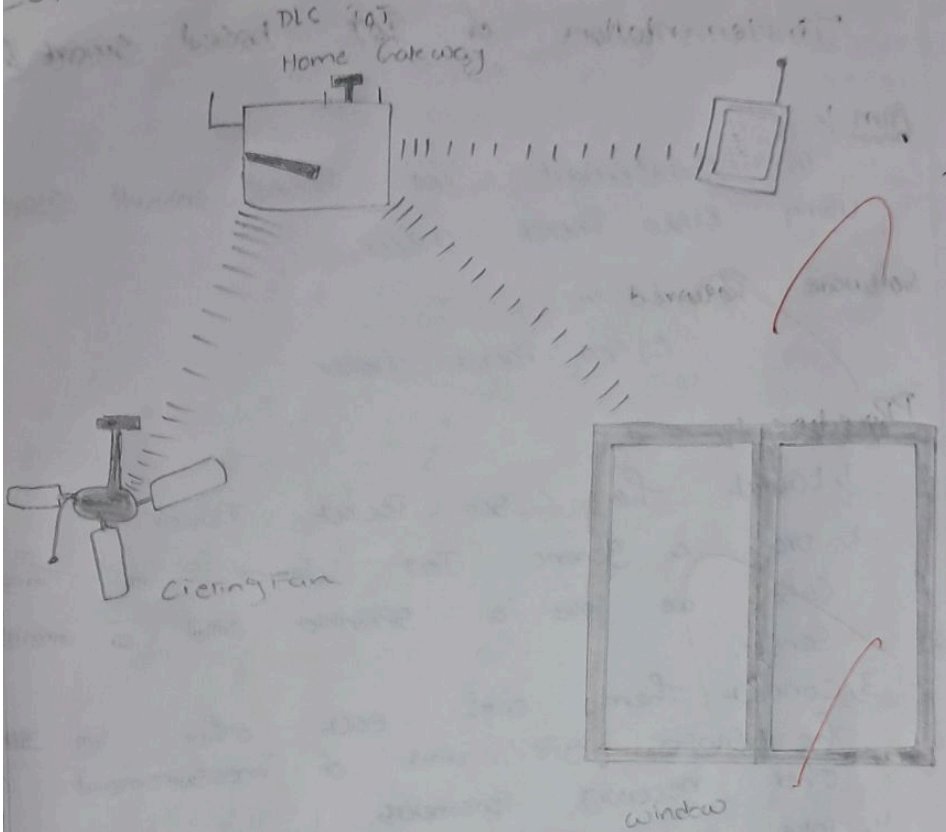
Program : no-cache \r\n

User-Agent : microsoft NCSI \r\n

HOST : www.msft ncsi.com \r\n

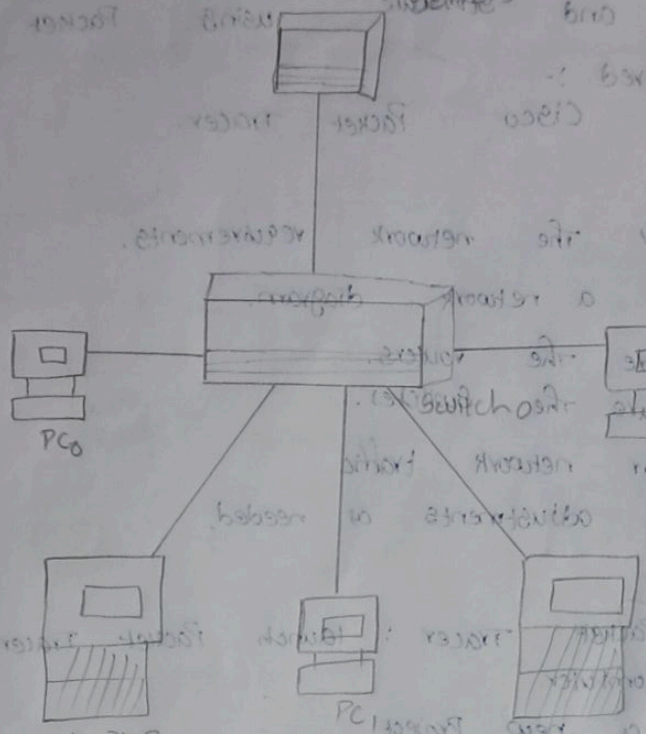
\r\n.

IOT Based Smart Home Applications



Network diagram

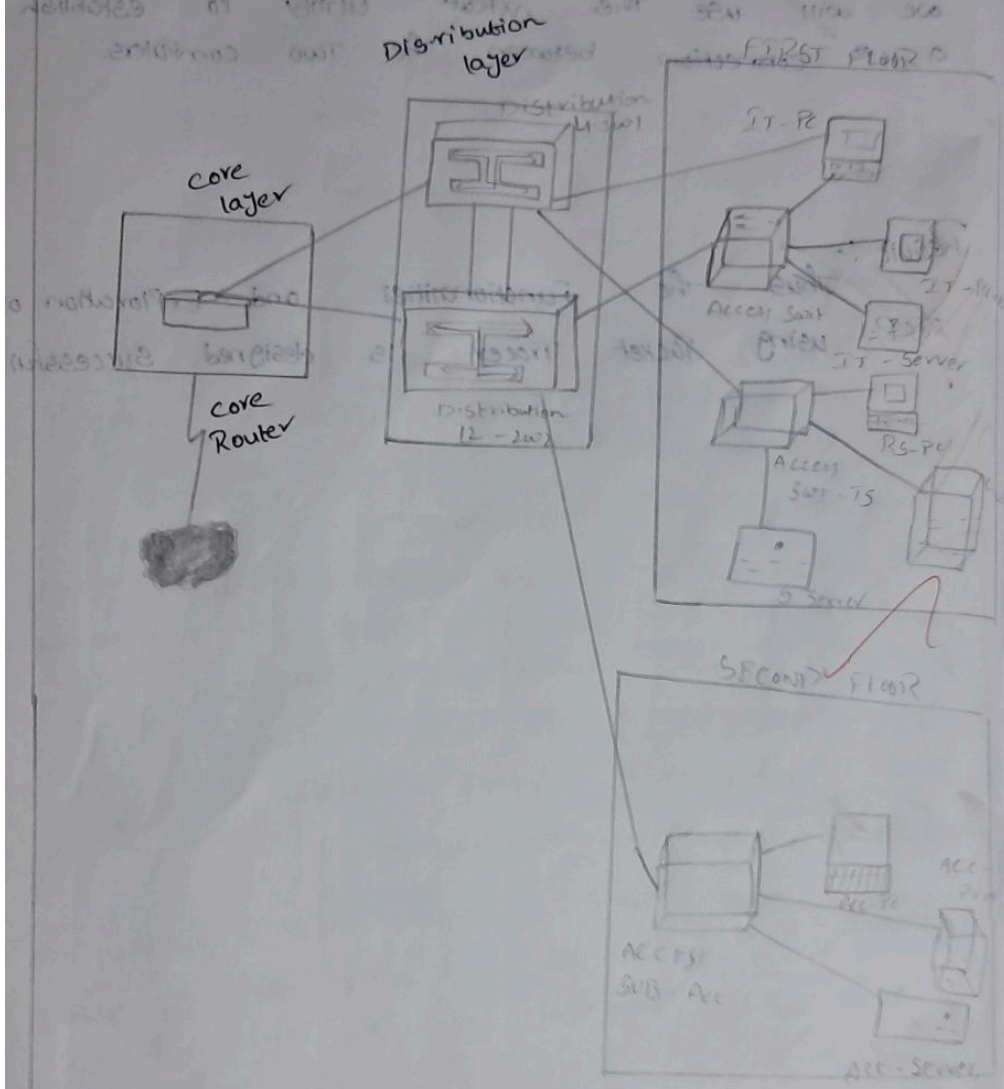
Configuration DHCP.



Output table :-

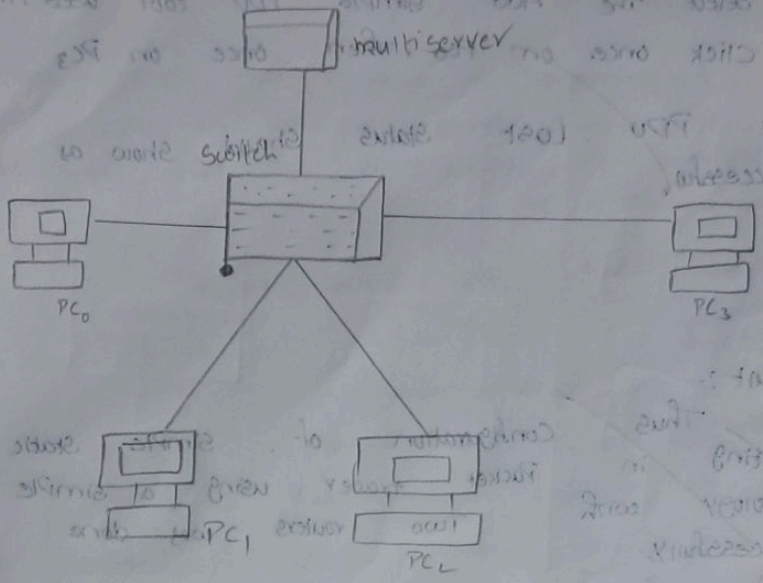
Last Status	Source	Destination	Type
Successful	PC0	Laptop 1	ICMP
Successful	PC2	PC1	ICMP

Simulating X.Y.Z Company network design.



Network diagram

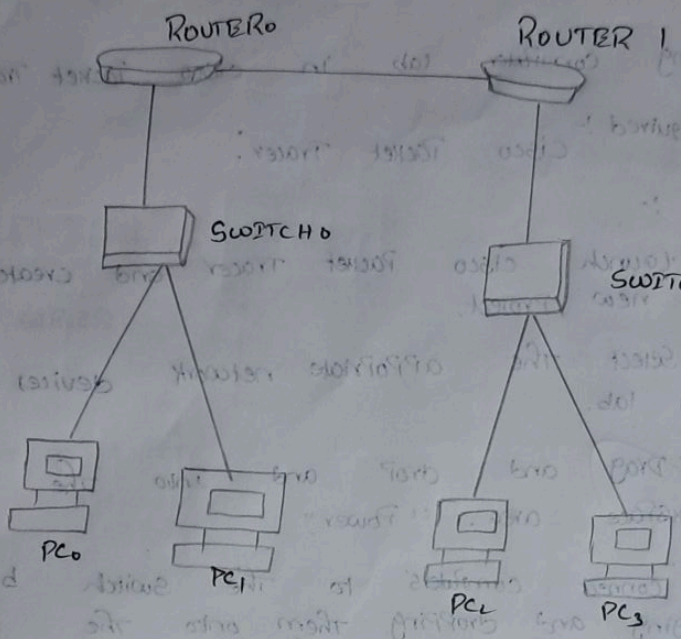
Design the functionalities and Exploration of TCP,



Output table :-

Last Status	Source	Destination	Type	Colour
Successful	PC1	PC3	ICMP	white

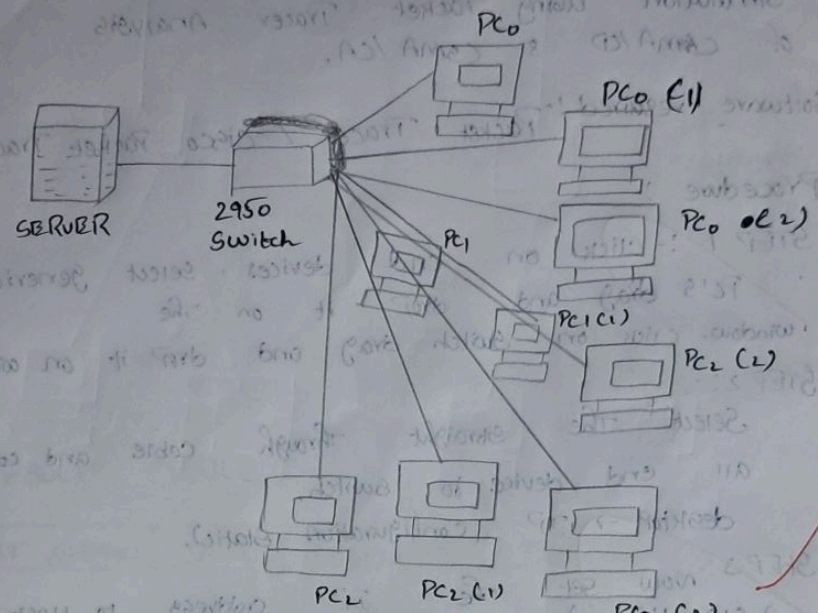
SIMPLE STATIC ROUTING :-



RESULT TABLE :-

LAST STATUS	SOURCE	DESTENATION	TYPE	COLOUR
Successful	PC_1	PC_2	ICMP	Green
Successful	PC_3	PC_0	ICMP	Red.

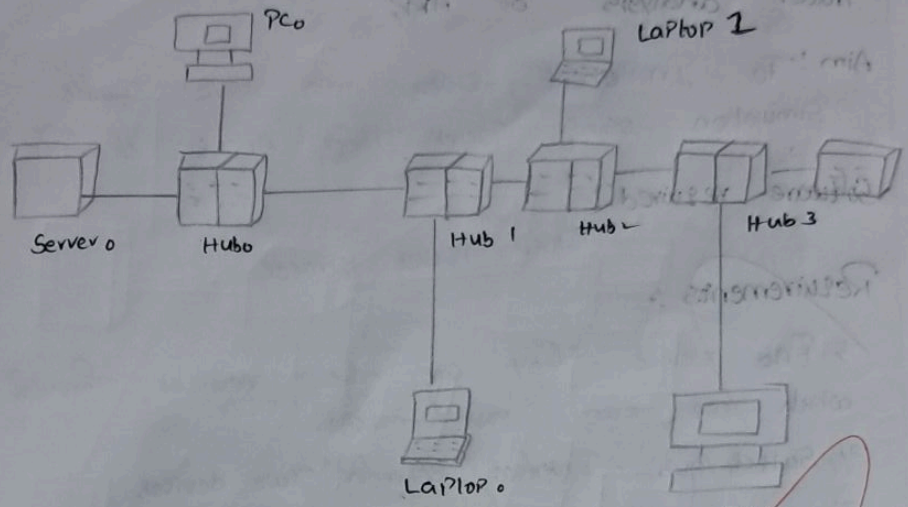
COMPUTER LAB 1-



OUTPUT TABLE :-

LAST STATUS	SOURCE	DESTINATION	TYPE	COLOUR
Successful	PC0	PC2 (2)	ICMP	Blue
Successful	PC1	PC2 (1)	ICMP	Violet

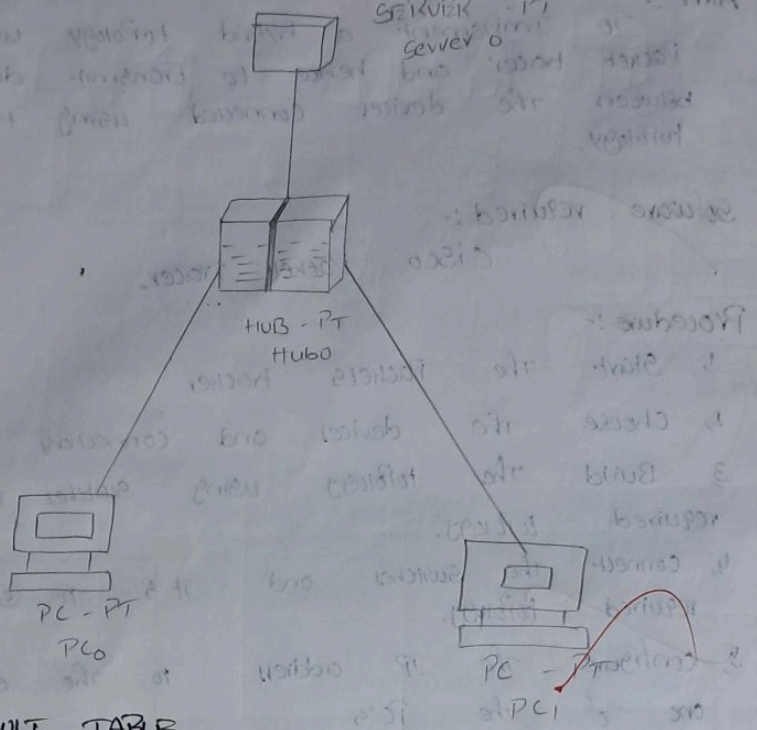
DATA LINK LAYER CSMA/CD & CSMA/CA :-



RESULT TABLE :-

LAST STATUS	SOURCE	DESTINATION	TYPE	COLOUR
In Progress	PC0	PC1	ICMP	Violet
In Progress	PC1	Laptop 1	ICMP	Green

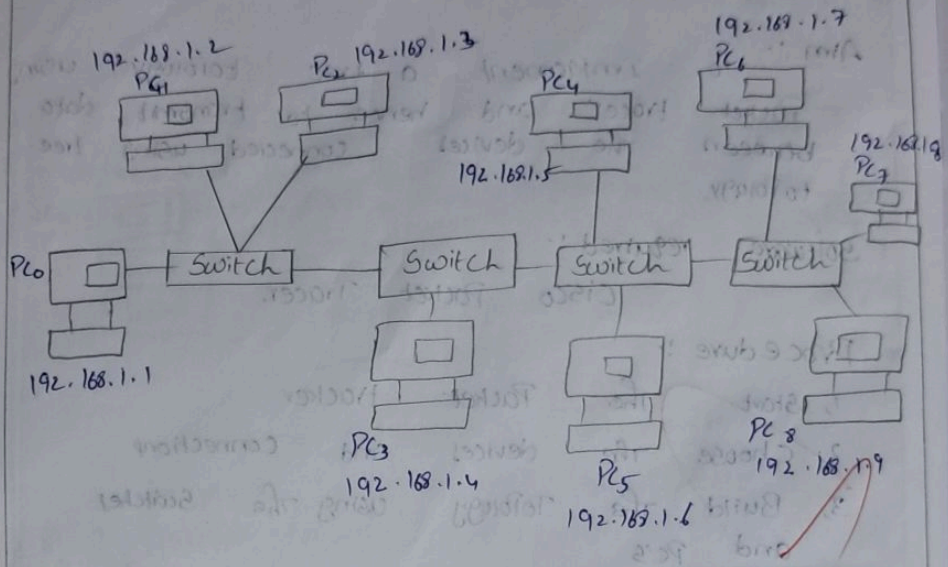
DATA LINK LAYER (ARP)



RESULT TABLE

LAST STATUS	SOURCE	DESTINATION	TYPE	COLOUR	TIME
Successful	PC_0	PC_1	ICMP	Blue	0000

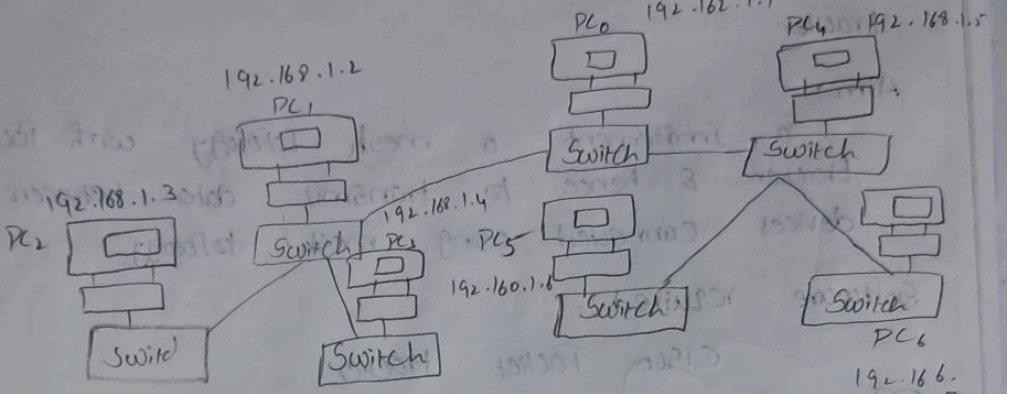
HYBRID Topology :-



Output

Source	Destination	Status
PC_0	PC_6	Sucessful
PC_3	PC_8	Sucessful
PC_1	PC_5	Sucessful

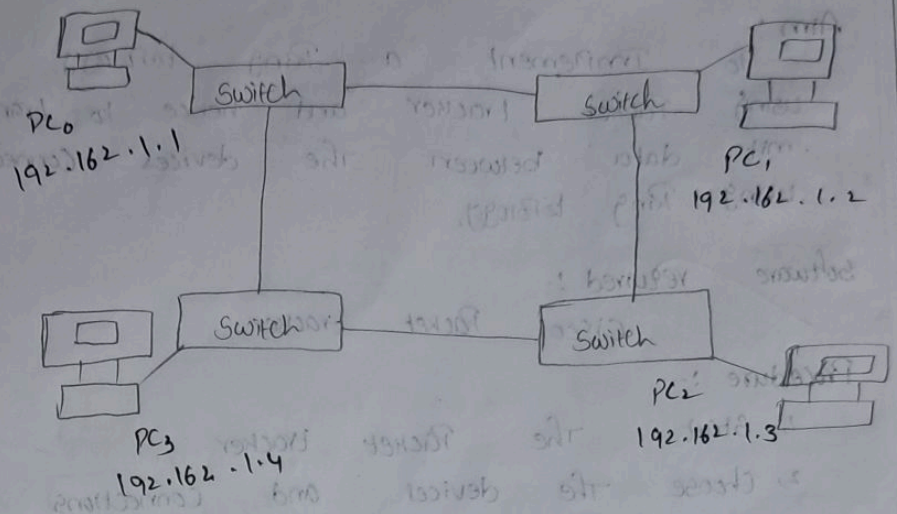
Tree topology :-



output :-

source	destanation	STATUS
PC_0	PC_5	Successful
PC_2	PC_6	Successful
PC_1	PC_5	Successful.

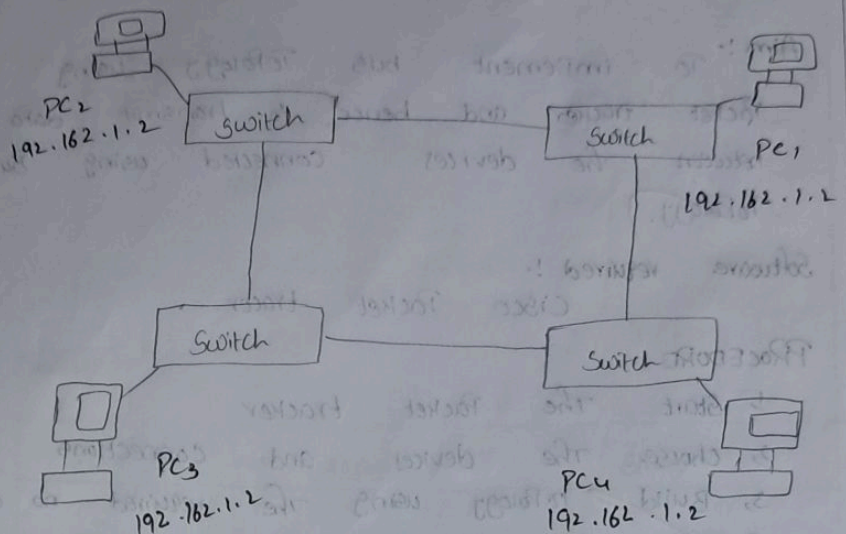
mesh Topology :-



Output :-

Source	destination	STATUS
PC_1	PC_4	Successful
PC_2	PC_3	Successful.

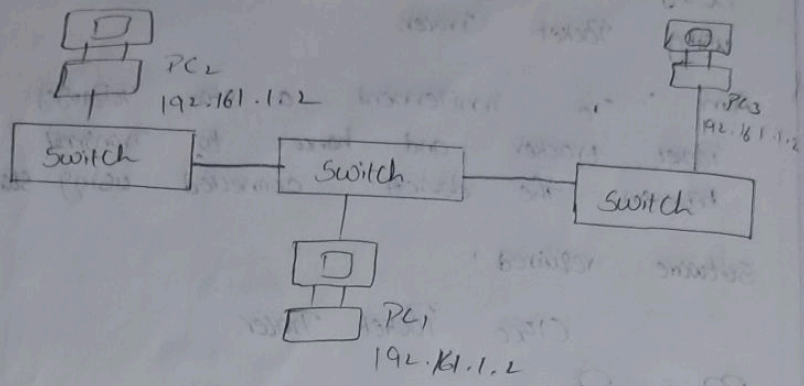
RING TOPOLOGY :-



OUTPUT :-

Source	Destination	STATUS
PC_0	PC_1	successful
PC_2	PC_3	Successful
PC_3	PC_1	Successful

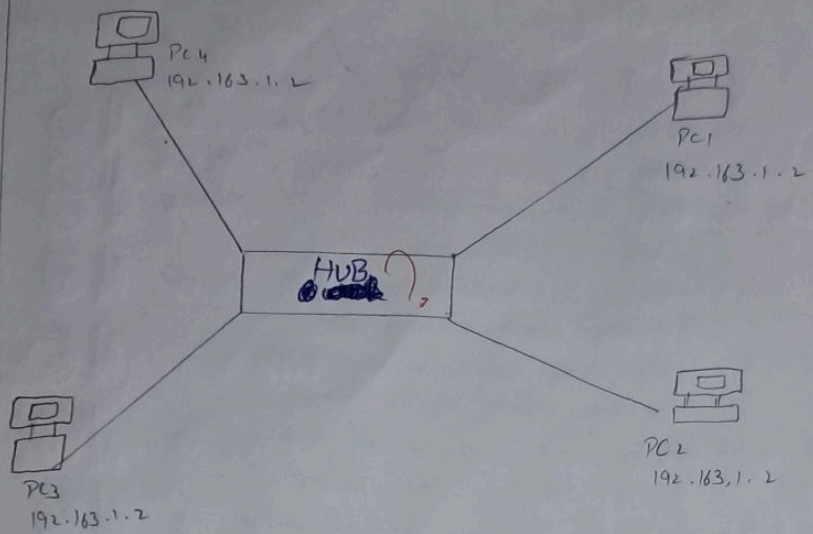
Bus Topology :-



Output :-

Source	distination	Status
PC0	PC2	Sucessful
PC0	PC4	Sucessful

Star Topology :-



Output :-

Source	destination	STATUS
PC_3	PC_1	successful
PC_2	PC_4	successful