EXNO: 09 CLASSFULL SUBNETTING

DATE ~~08-10-24~~
20.09.24

AIM:

Implementation of subnetting in cisco packet tracer simulator

PROCEDURE

1. Create network using switches, router and PCs
2. The IP address will be as follows

→ Router R1
* Gigabit Ethernet 0/0 : 192.168.1.1
* Gigabit Ethernet 0/1 : 192.168.2.1
Also enable 'ON' for both

→ SWITCH S1
* NO IP

→ LAN-1
• PC 0
IP Address : 192.168.1.11
Gateway : 192.168.1.11

• PC1
IP : 192.168.1.12
Gateway : 192.168.1.1

• PC2
IP : 192.168.1.13
Gateway : 192.168.1.1

• PC 3
IP : 192.168.1.14
Gateway :
192.168.1.1

• IP4
IP : 192.168.1.15
Address :
192.168.1.1

→ Switch S2

* No IP

→ LAN - 2

- PC 5

  IP Address : 192.168.2.11

  Gateway : 192.168.2.1

- PC 6

  IP address : 192.168.2.12

  Gateway : 192.168.2.1

- PC 7

  IP address : 192.168.2.13

  Gateway : 192.168.2.1

- PC 8

  IP address : 192.168.2.14

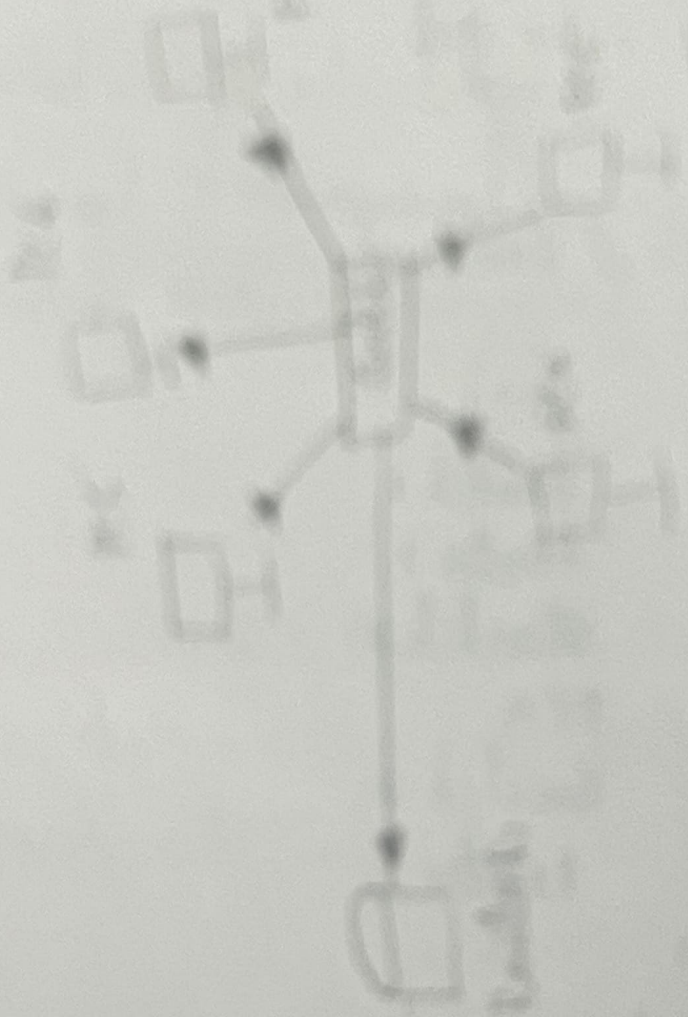
  Gateway : 192.168.2.1

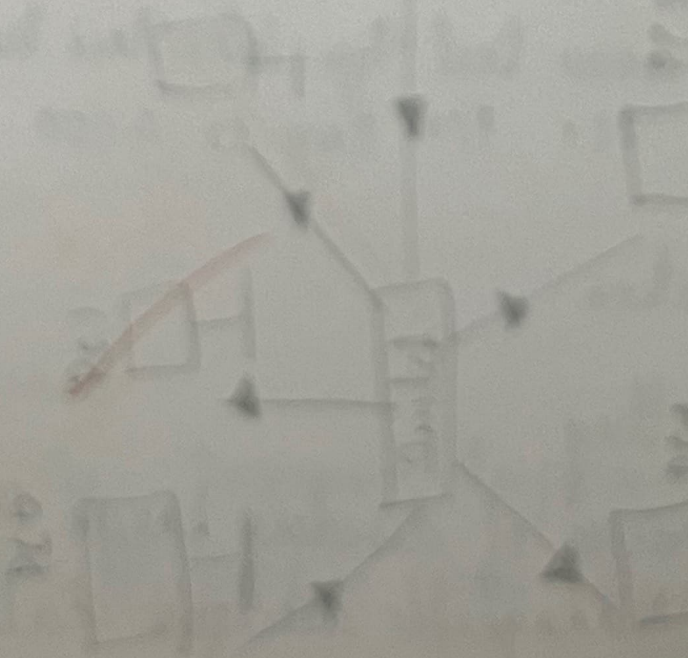
- PC 9

  IP : 192.168.2.15

  Gateway : 192.168.2.1

Programación Dinámica





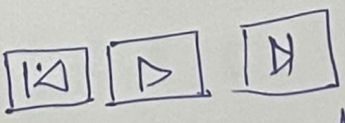
Output

Now let assume PC1 is sender and receiver is PC7

While simulating, we get

Time	Last device
0.000	--
0.003	PC1
0.005	Switch 1
0.008	Router 1
0.010	Switch 2
0.013	PC9
0.015	Switch 2
0.018	Router 1
0.023	--

Reset simulation

Play Controls 

Fire	Last Status	Source	Dest	Type	Color	Time	Periodic
⊙	Successful	PC1	PC9	ICMP	□	0.000	N O

Student Observation

1) What is Subnetting

→ It is the process of dividing large IP network and manageable section called subnet

⇒ Devices to communicate within subnet to control traffic

2. What are its advantages?

1. Efficient IP Management
2. Reduce Network Congestion

Result

The ~~Program~~ Implementation of Subnetting has done successfully