Project Report

CSE-405

Sec-02

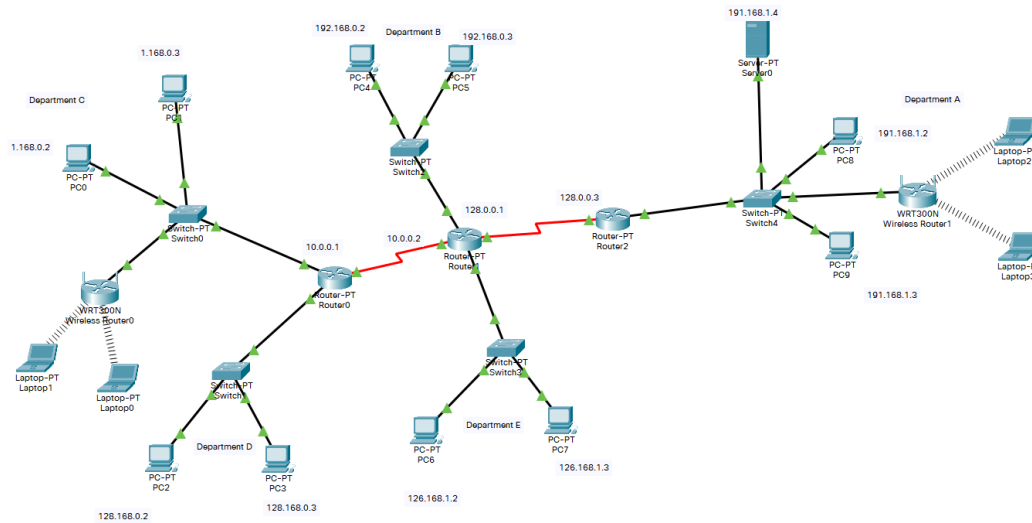Submitted to:

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Submitted by:

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ID: 2019-1-60-036

1. Introduction:

This network is an interconnection between 5 department which can communicate with each other through emails. They can send packets to each other and also the server hosts a website which can be browsed from all the computers configured.

2. Parts of Network Architecture:

The parts of the network:

• Hardware: PCs, Laptops, Routers, Access Points, Switches, Custom build PCs, Servers.

• Transmission Media: Copper Wire, Wireless and Serial DTE.

• Protocols:

For Routing: Static, RIP etc.

For TCP/IP: HTTP, HTTPS, DNS, Email service etc.

3. <u>Components of the Network:</u>
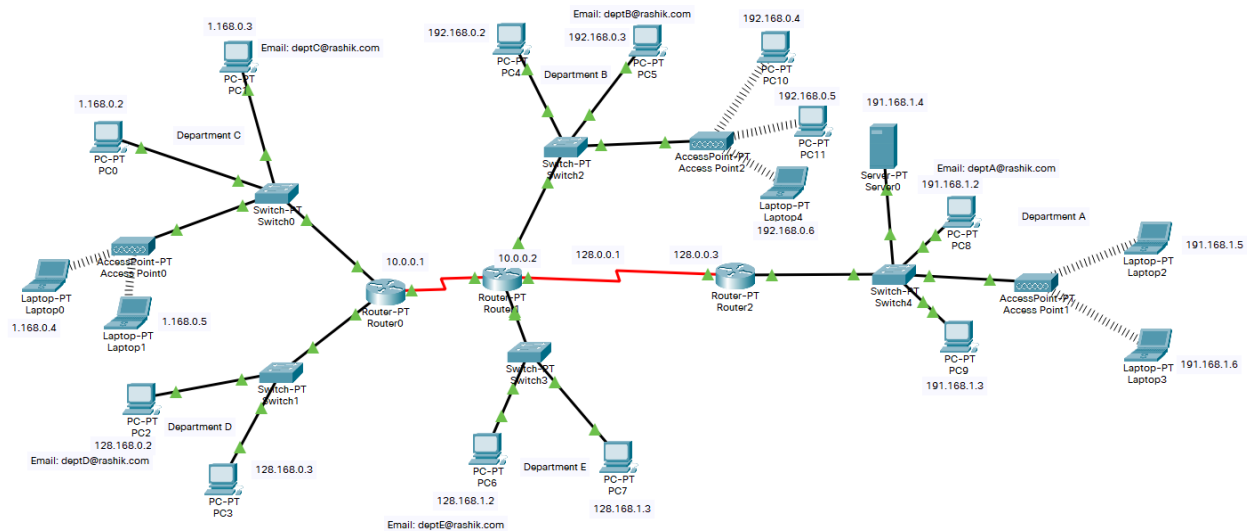
Copper wires used for connecting pcs to switches, switches to routers and, server and access points to routers. Laptops are connected to access points through Wireless connection. Router to router connections is through Serial DTE.

This network has a server which contains DNS, emails and all the devices of the network can communicate with each other.
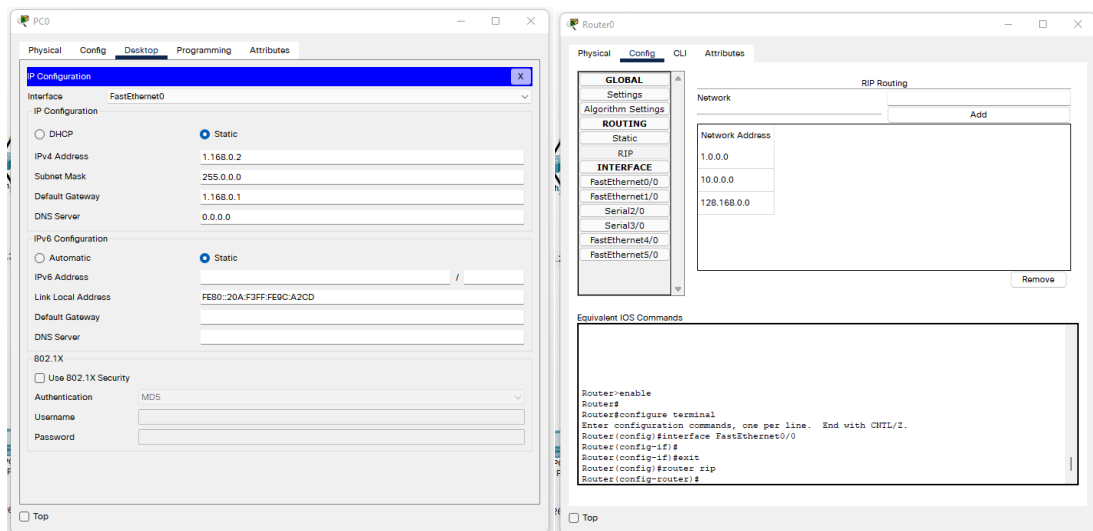
4. Working principles of Networks different parts:

Project Task:

1.   Here is the Main Network,
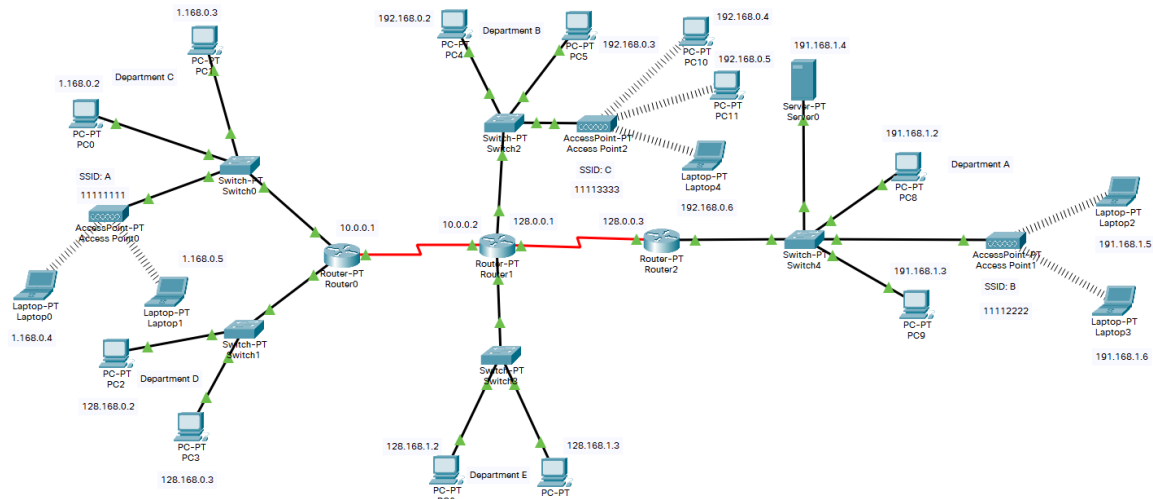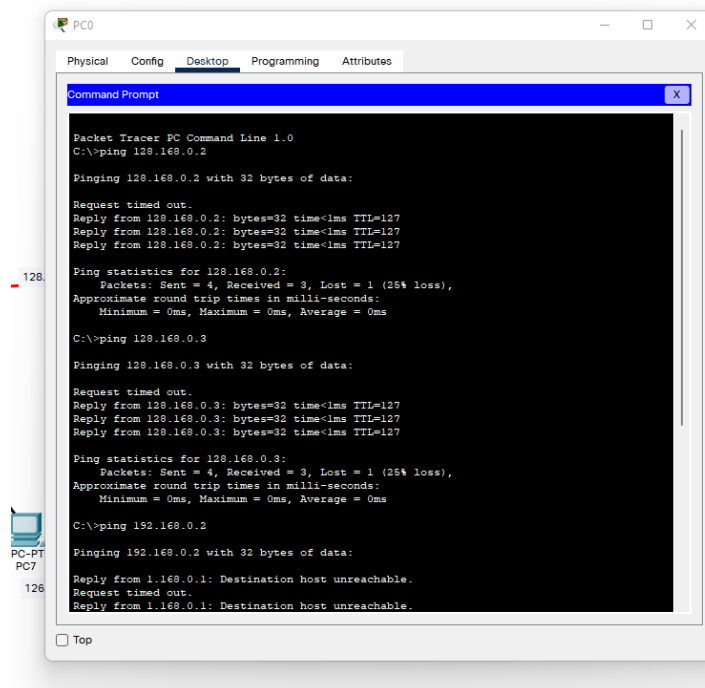

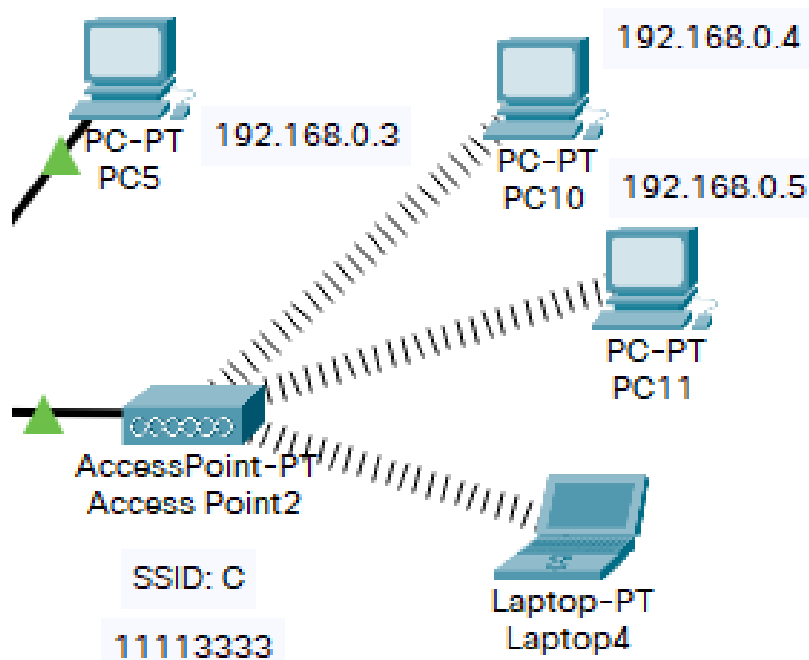We configured all the PC's static routing and router's RIP like this,

We send packets to see if the devices are connected or not,

● Successful	PC0	PC9	ICMP		0.000	N	1	(edit)	(delete)
● Successful	PC4	PC6	ICMP		0.000	N	2	(edit)	(delete)
● Successful	PC8	PC0	ICMP		0.000	N	3	(edit)	(delete)
● Successful	Lapt...	Laptop1	ICMP		0.000	N	0	(edit)	(delete)
● Successful	Lapt...	Laptop3	ICMP		0.000	N	1	(edit)	(delete)
● Successful	Server0	PC8	ICMP		0.000	N	2	(edit)	(delete)
● Successful	Server0	PC7	ICMP		0.000	N	3	(edit)	(delete)

Then I used ping to check the connections also,

2.   a) Different devices connected to a wireless network,
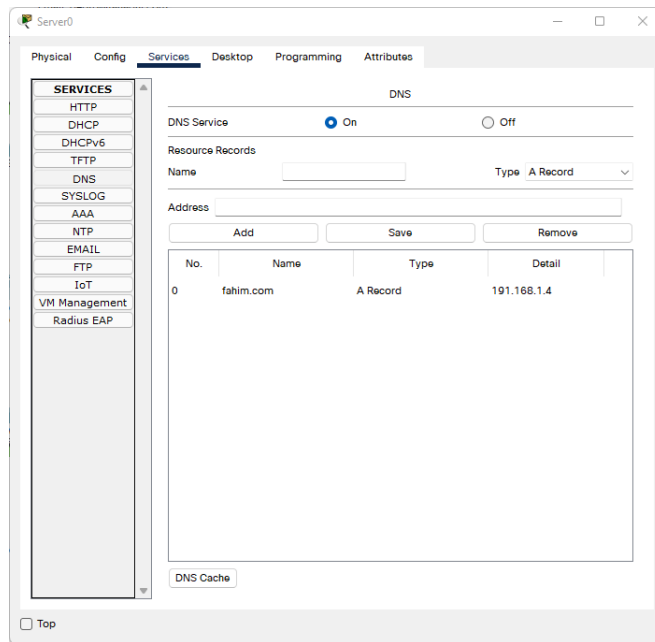
b) Server config to DHCP,
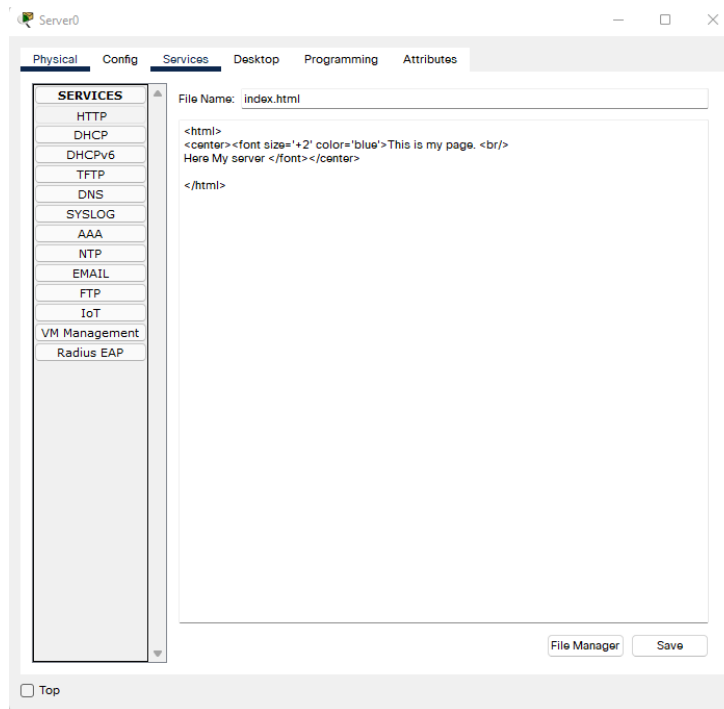

Access point config is below,
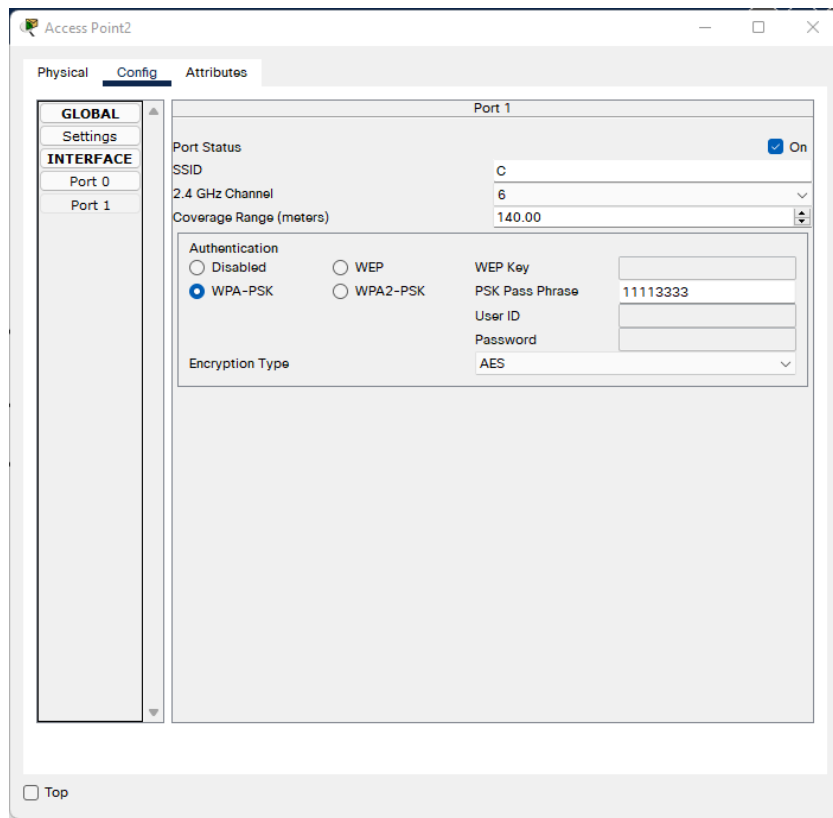
Access point connections to PC,
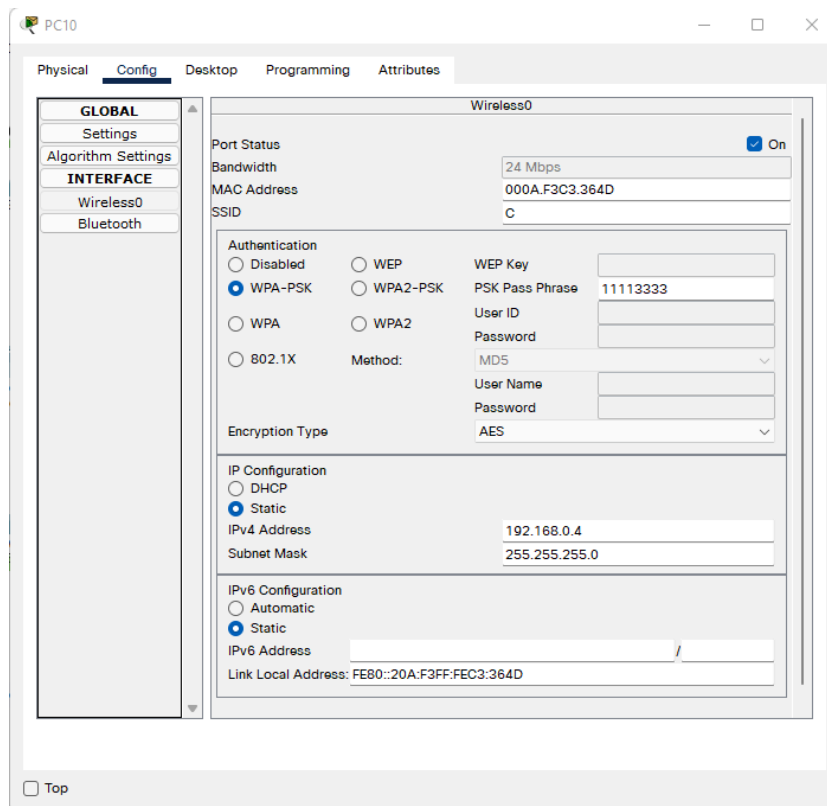
c) Setting DNS and HTTP server,
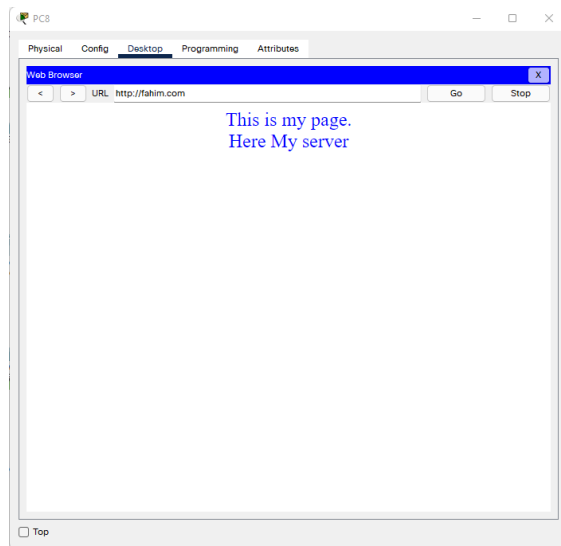
I configured the DNS here,

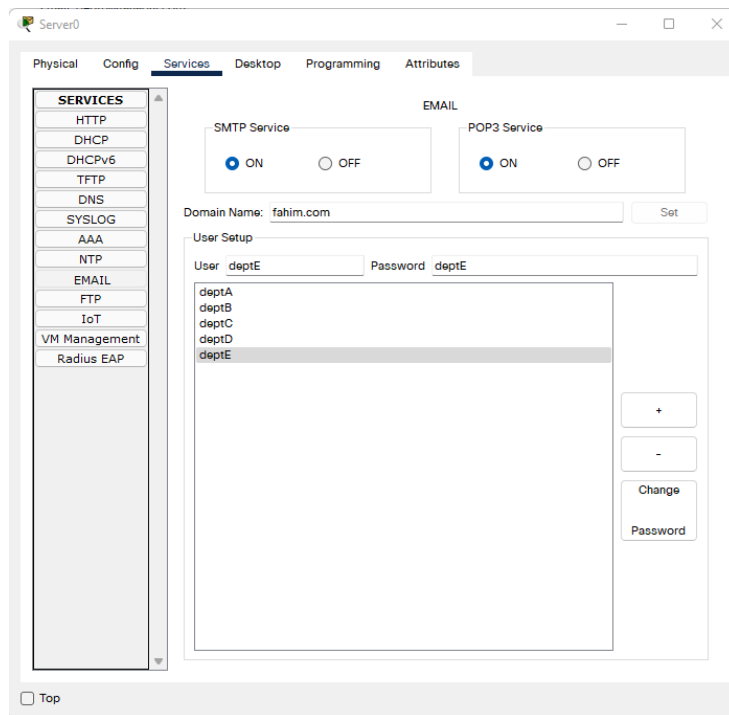This is the HTTP setup where I configured my index.html

This is my index I got browsing from other pc connected or configured with the server.

d) Creating emails,

I have created an email domail in server,

Here I have configured the pc which will use email,

Sending and receiving emails,

5. <u>Discussion & Conclusion:</u>

This project helped us a lot to understand a network between 5 departments which are interconnected. There are some wireless devices and a server. Server is configured with a DNS and emails. So, all the network in this server can communicate with each other. By doing this complex network, new components and devices were introduced and also did some settings tweaks in devices. Like, Increasing port number of a switch and, pc, laptop wireless settings. Also, wireless connection set-up, Server set-up and many more. Most interesting was the RIP settings which was very easy to configure and set-up comparing to Static settings set-up.