FINEL REPORT

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MIS 376
SECOND SEMESTER

INTRODUCTION:

This report centres on the development of a Local Area Network (LAN) for a new building, in accordance with the provided case study. The building spans four floors and encompasses several departments, including computer labs, human resources (HR), marketing, IT and management. The LAN design requires the establishment of separate Virtual Local Area Networks (VLANs) for each department and a shared VLAN for both computer labs. The network infrastructure will comprise five switches, one router, and Ethernet-connected hosts. The switches will function as access layer switches and will be interconnected using fibre optic technology.

REQIRMENT:

The host in the network will be connected to switches with Ethernet via: (CAT6e)

The switches will be connected to by using fiber optic: (om4)

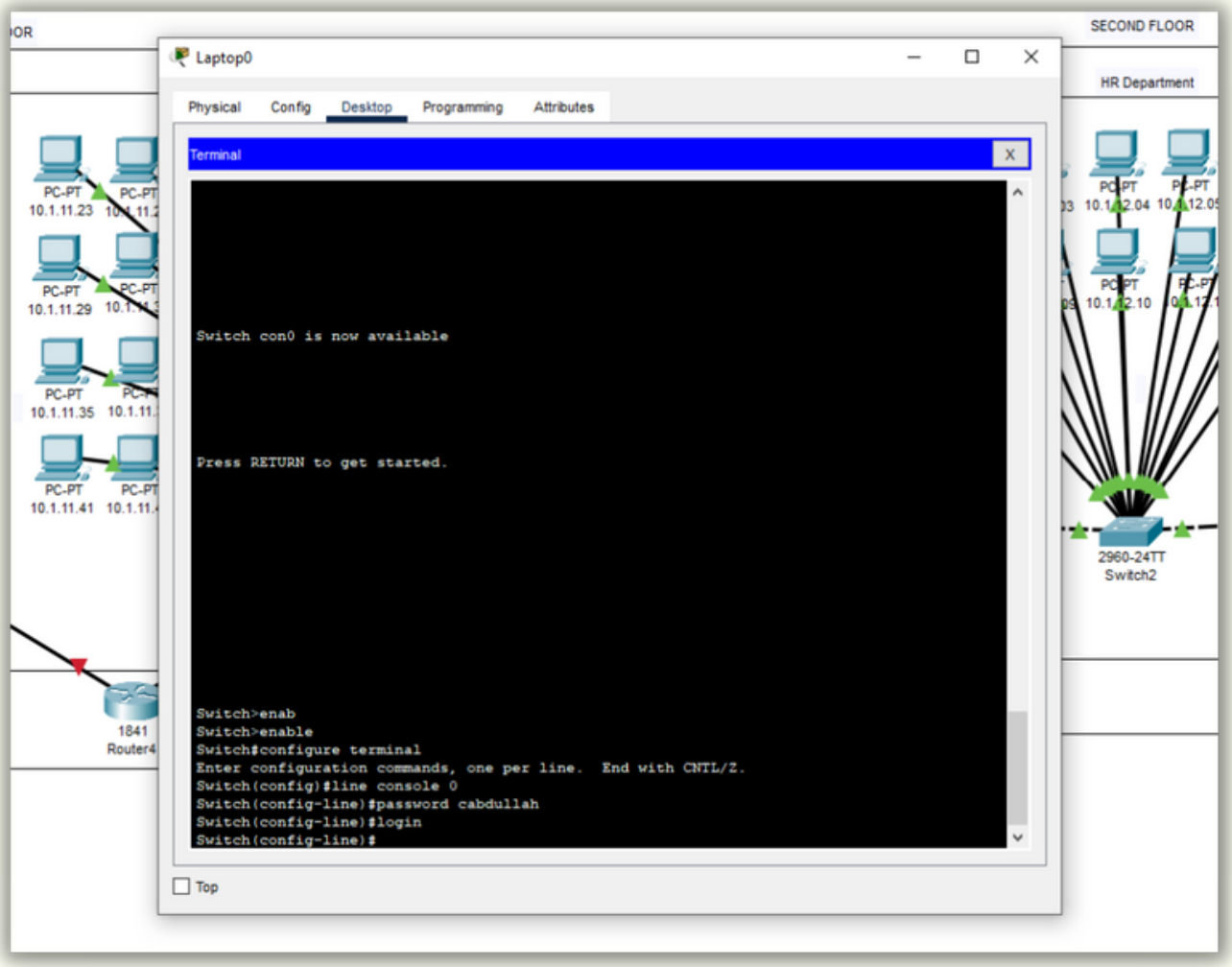
SCREENSHOTS:

1- The best location for the rock cabinet. (You can choose any office)

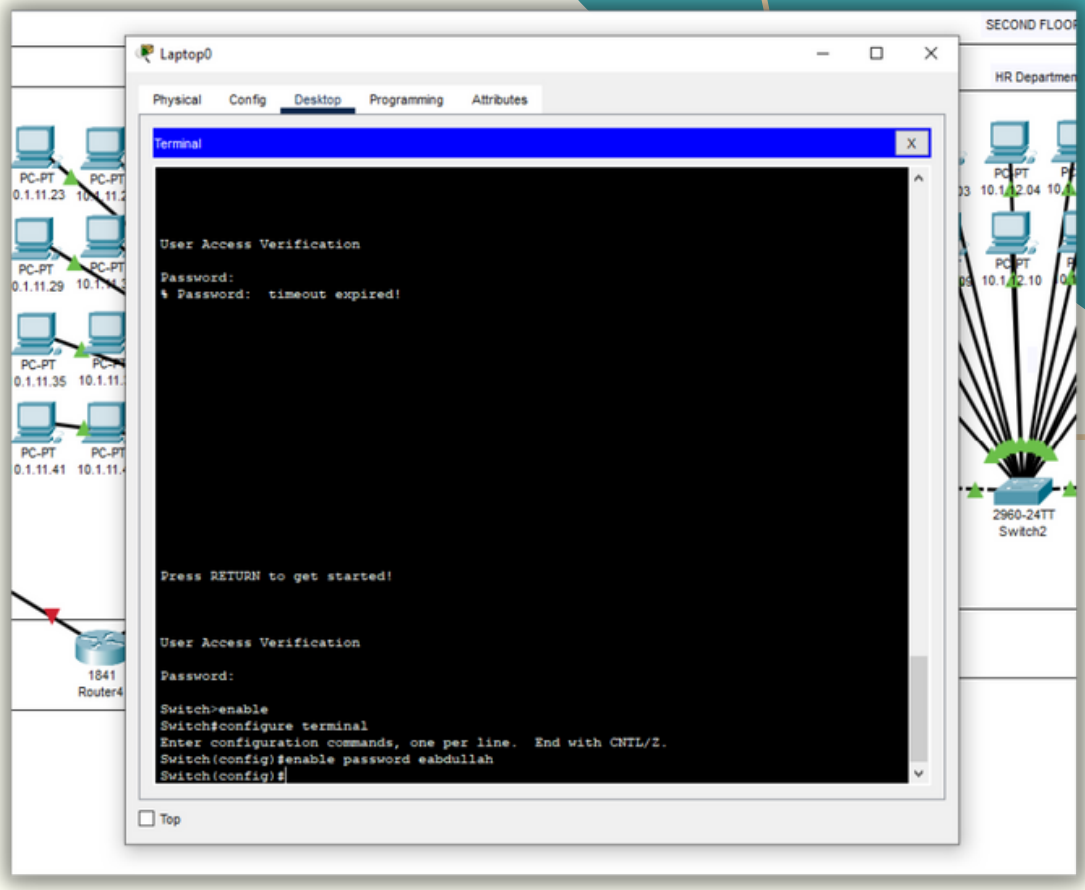
here is the best place we agreed of for the rock cabinet

2- Enable passwords for all switches (console, enable, and telnet) Provide a screenshot

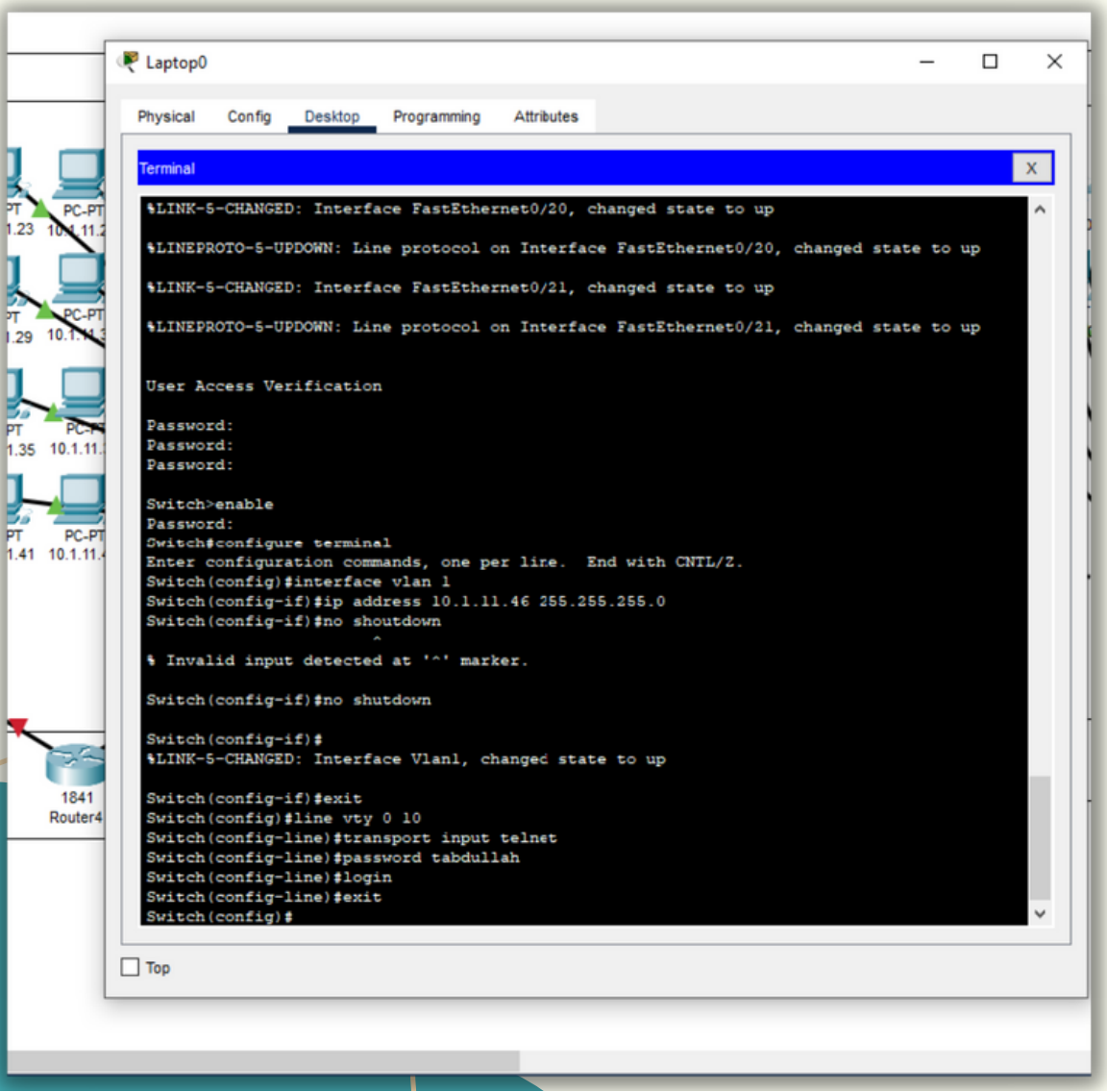
Assign Console password : (cabdullah)



Assign Enable password : (eabdullah)

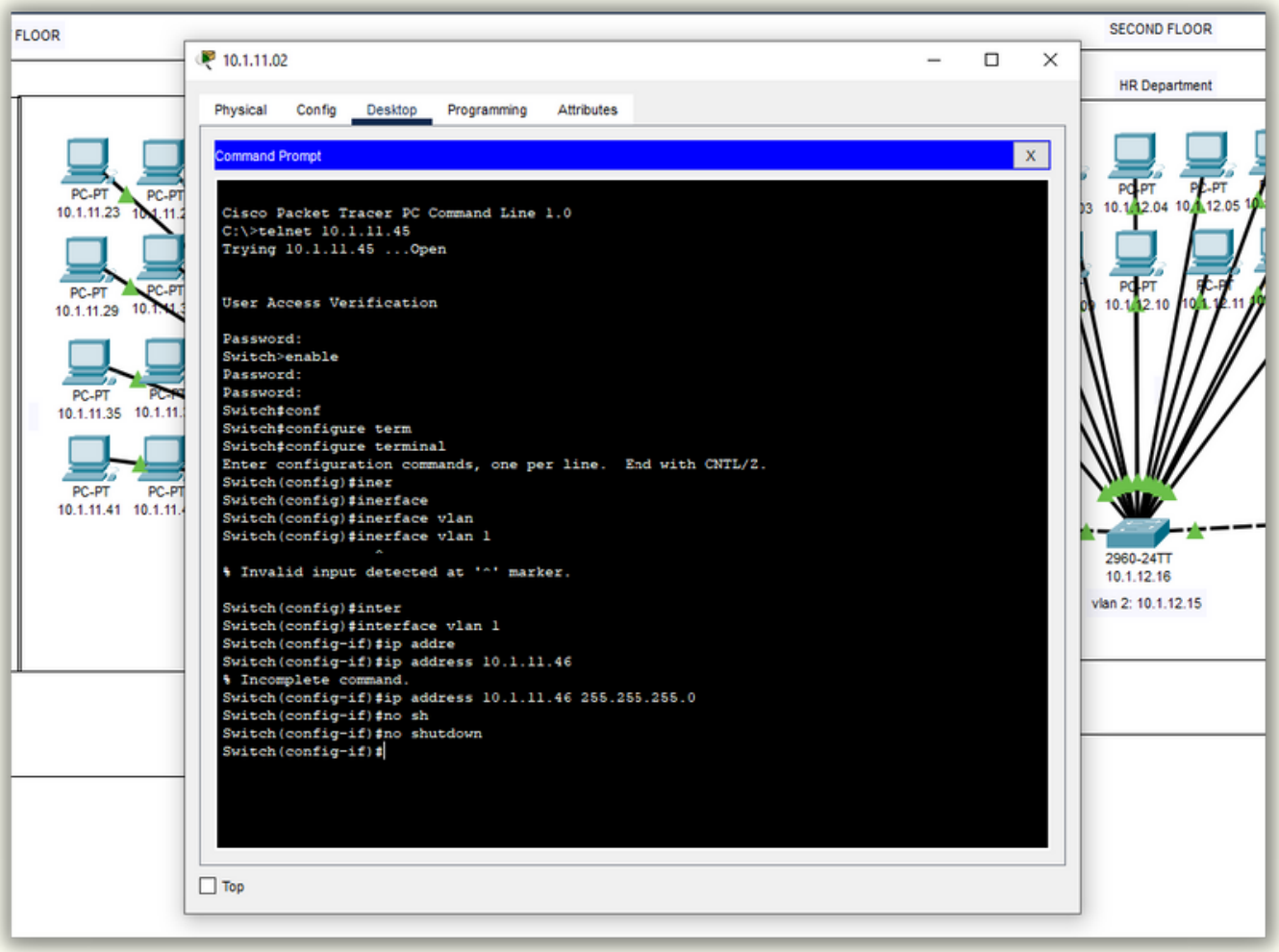


Assign Telnet password : (tabdullah)



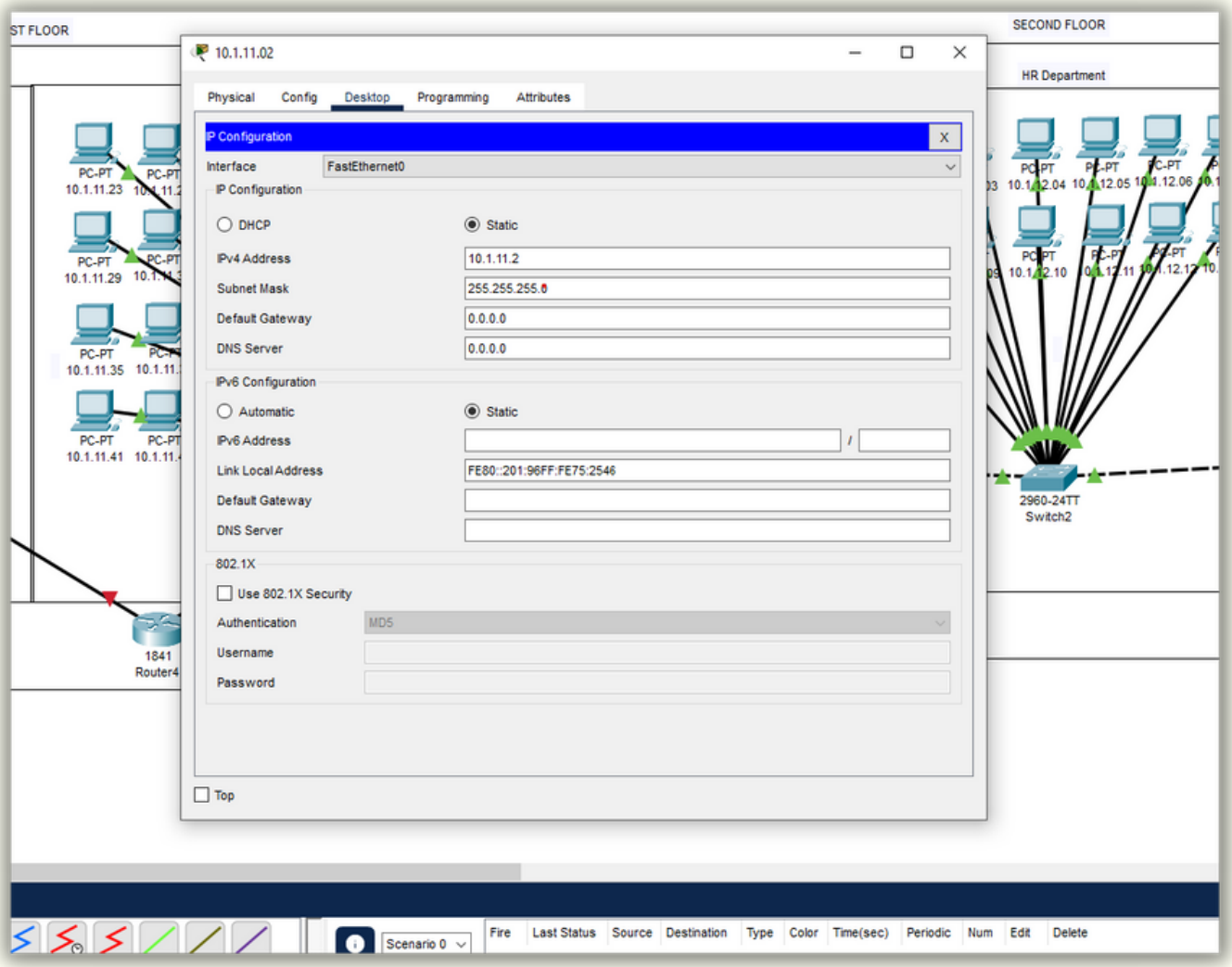
3- Create IP address for each switch. Provide a screenshot:

Switch one: IP: 10.1.11.46 note that I did same way with all switches to changes the IP

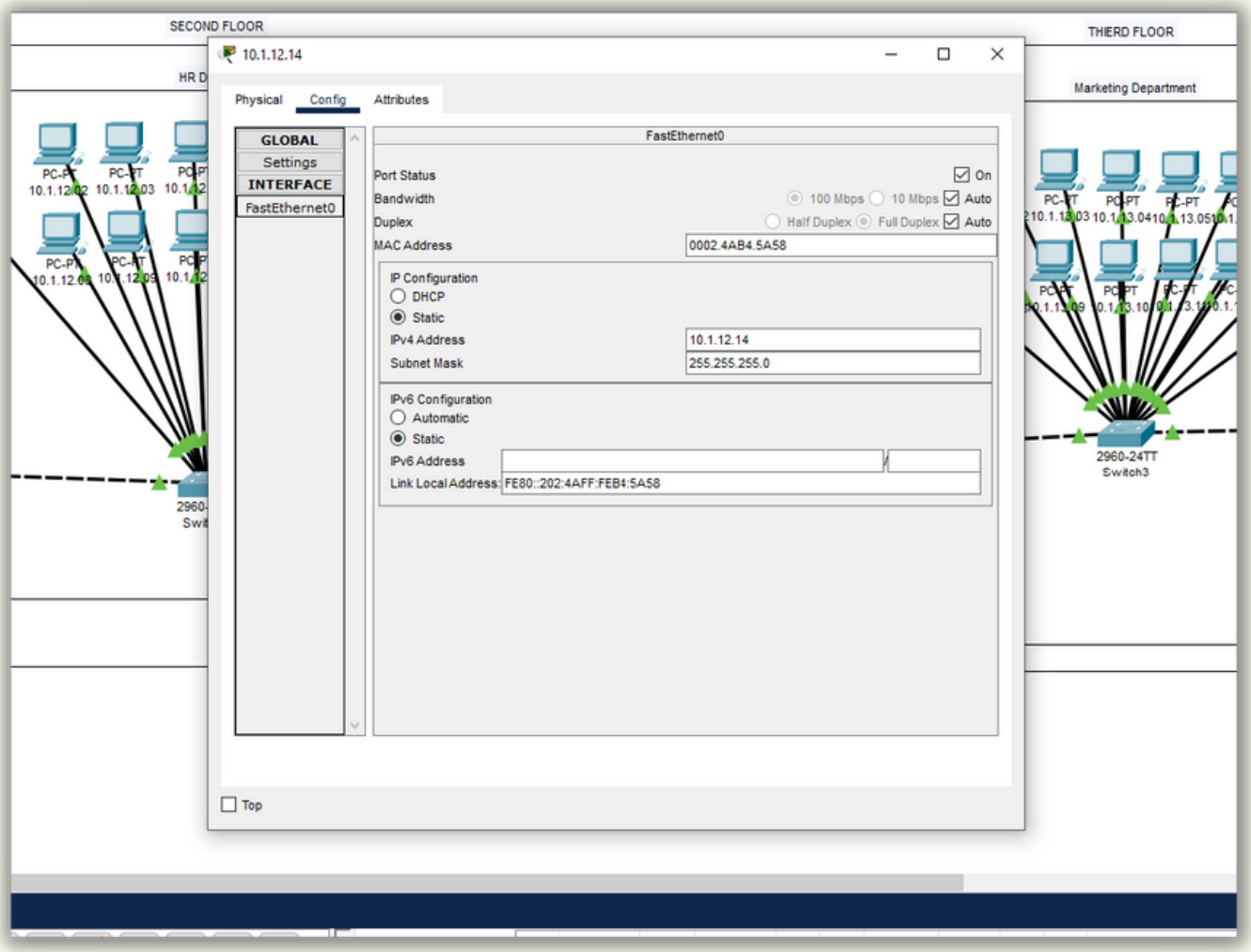


4- Assign a static IP address for each device (host). Provide a screenshot

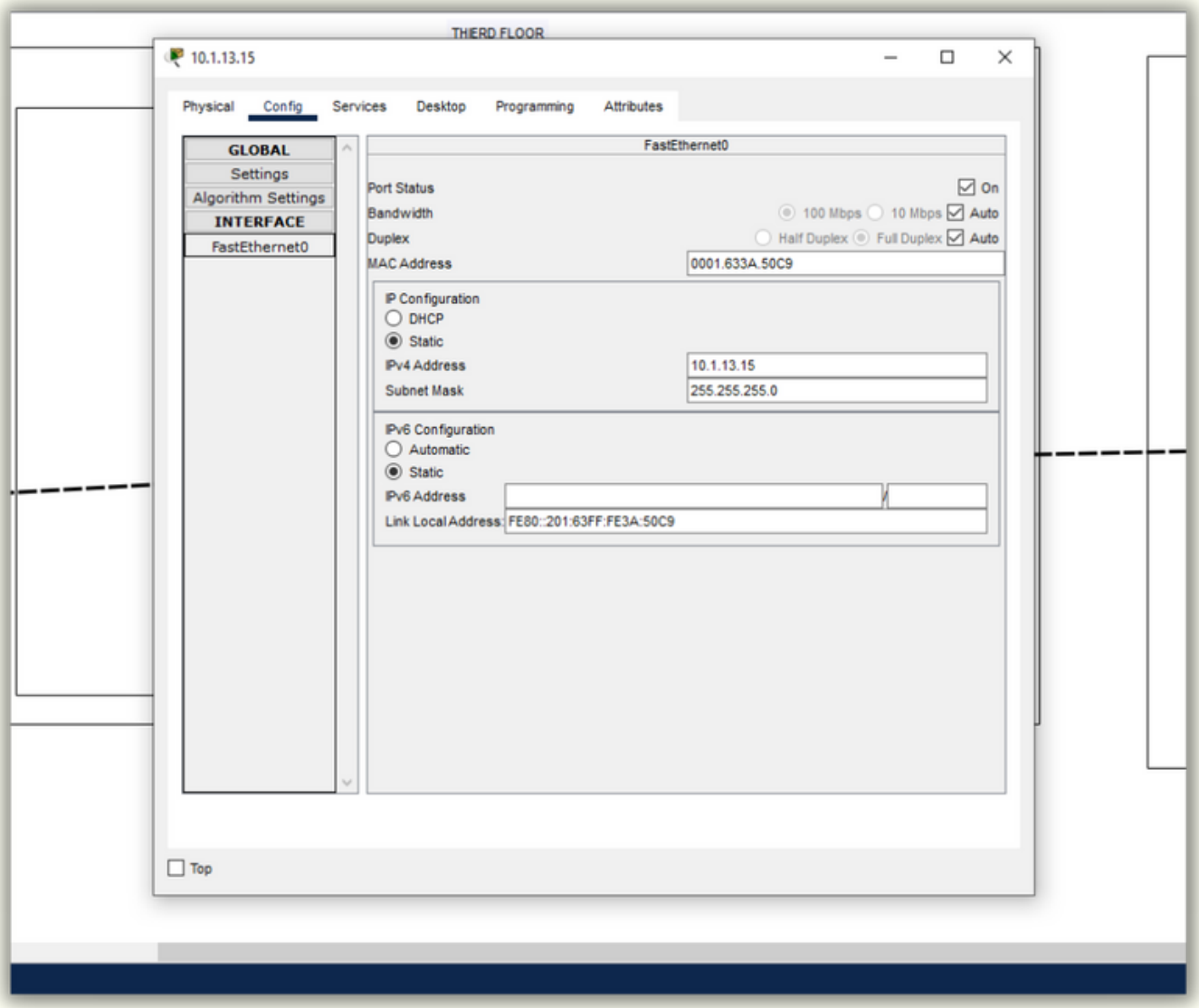
assign IP for Pc host: note that I did same way with all Pc hosts and give them IP



assign IP for server host :note that I did same way with the two servers hosts and give them IP

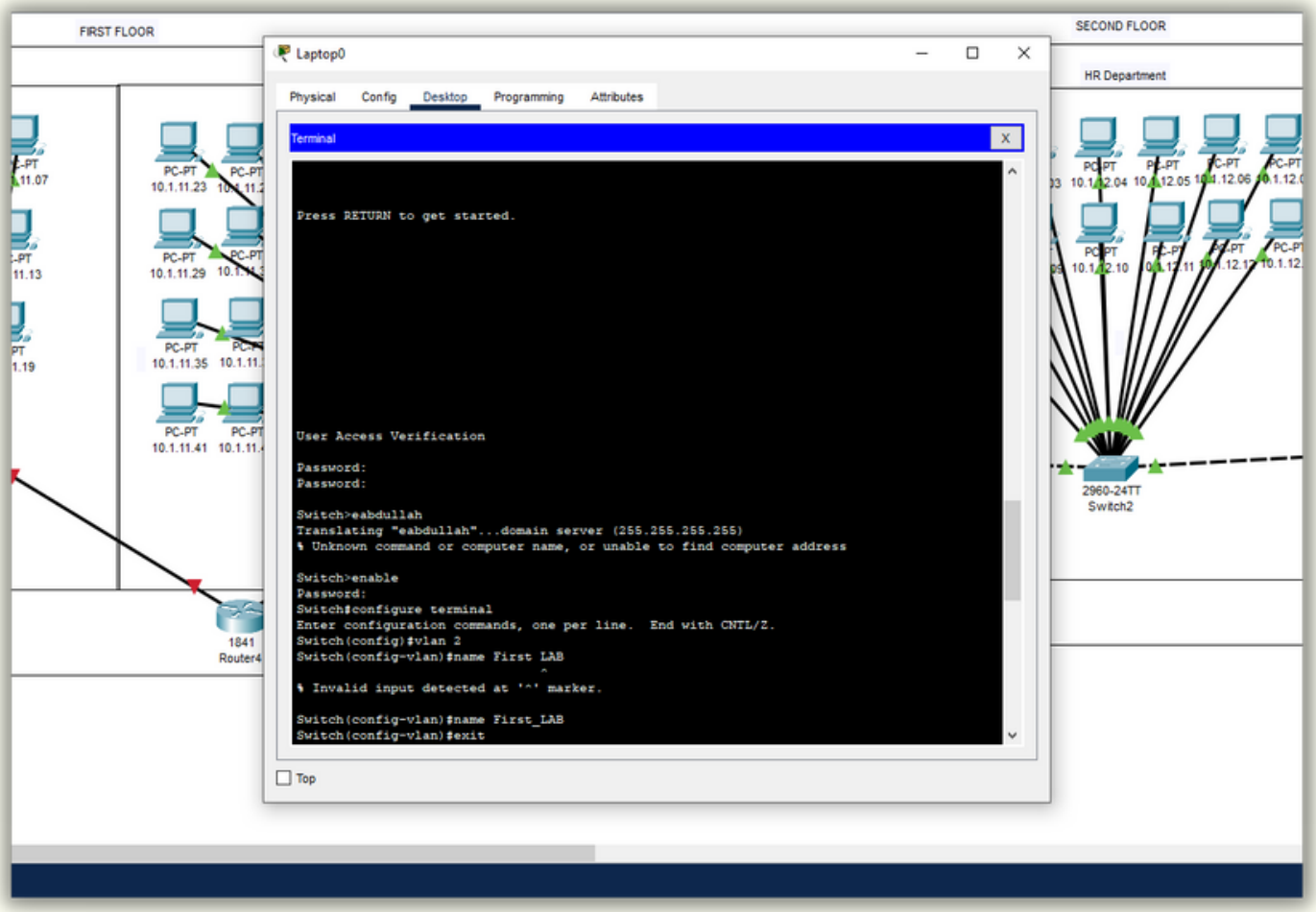


Assign IP for Printer host: note that I did same way with the two printer hosts and give them Ip

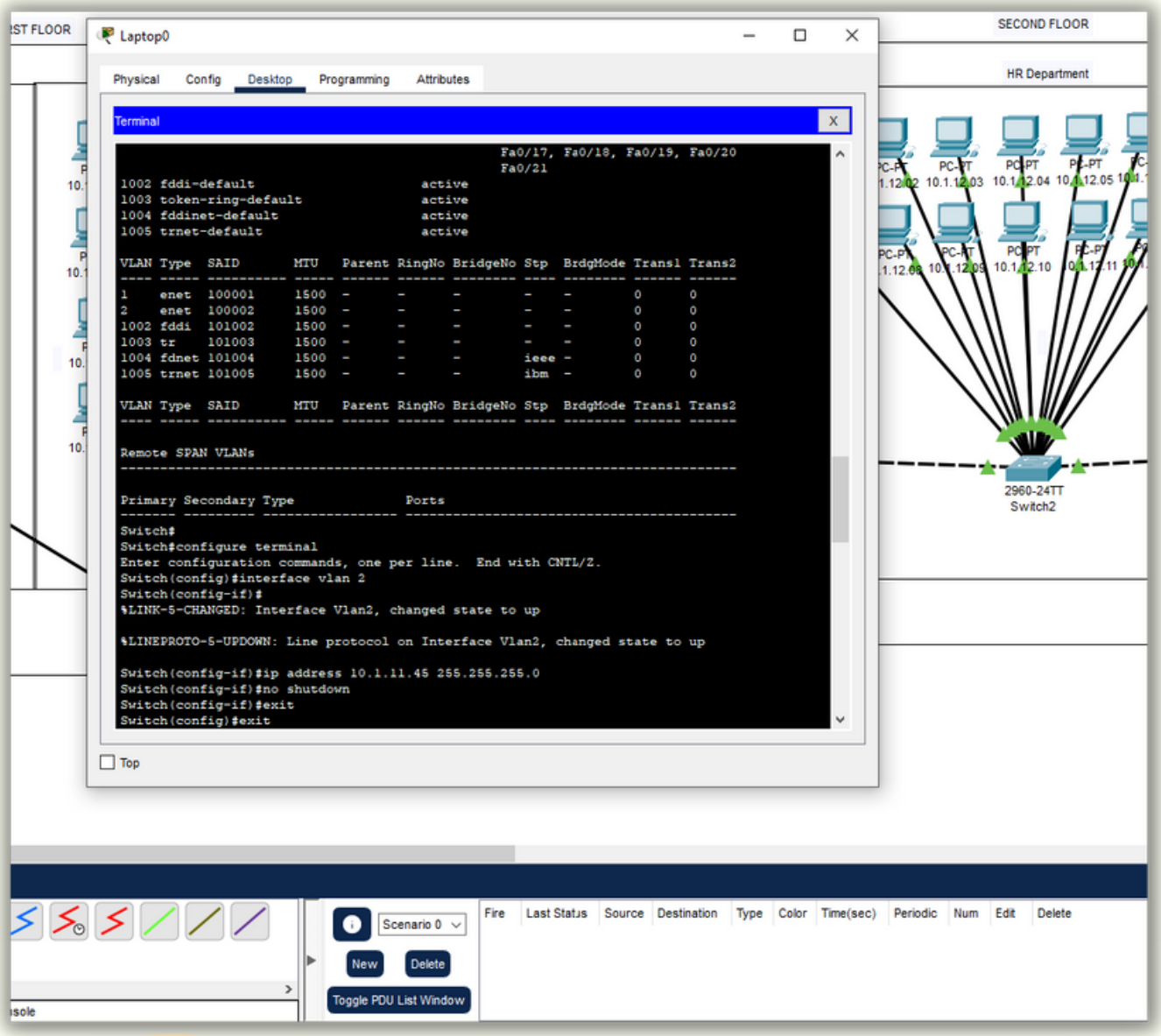


5- Create a VLANs. And assign IP address for each VlAN. Provide a screenshot.

Create Vlan 2 : I have create a vlen2 for the first lab and did the same way for other Vlans



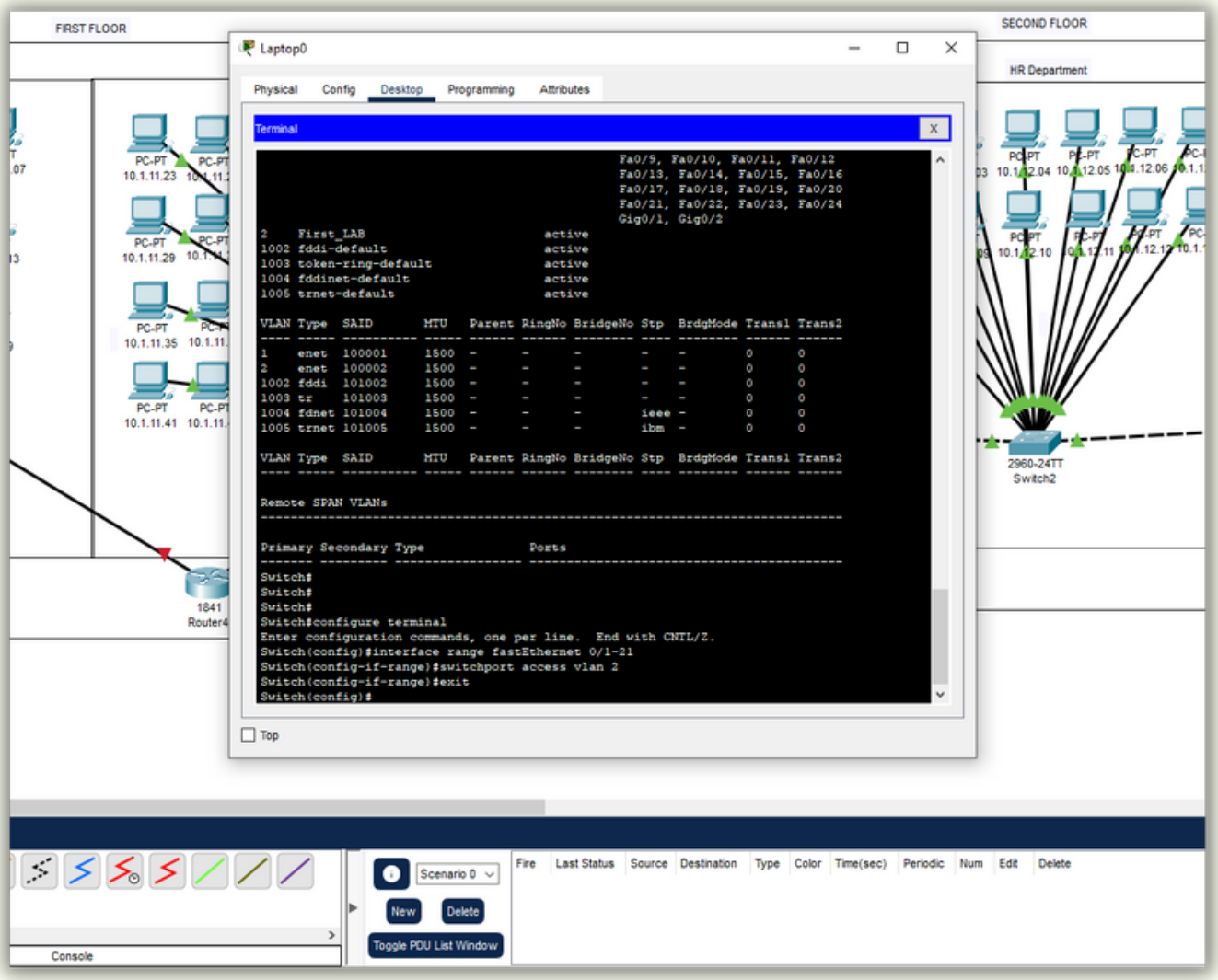
Assign Ip address for vlan2 that i have created : I have assigned Ip address for vlan 2 for the first lab and did the same way for other Vlans



6- Assign fast Ethernet to VLan. Provide a screenshot.

Fast ethernet: in this step I have assign fast ethernet from 0/1-21 for vlan 2 in the first lap

And I did the same way to assign multiple fast ethernet for vlan 2 in the other switches.



CONCLUSION:

In summary, the report has outlined a comprehensive roadmap for building a LAN in a new building. The steps include a strategic selection of the rack cabinet location, implementation of strong password protocols for all switches, IP address assignment for each switch and device, VLAN creation and configuration, and password protection for all switches. Additionally, a screenshot has been provided for clarity and ease of implementation. By following these steps, the LAN can be built and maintained with security and efficiency in mind.