Experiment No. 9
Perform to simulate NAT on the router using Cisco packet tracer/GNS3
Date of Performance:
Date of Submission:
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Roll No. 01

Experiment 9

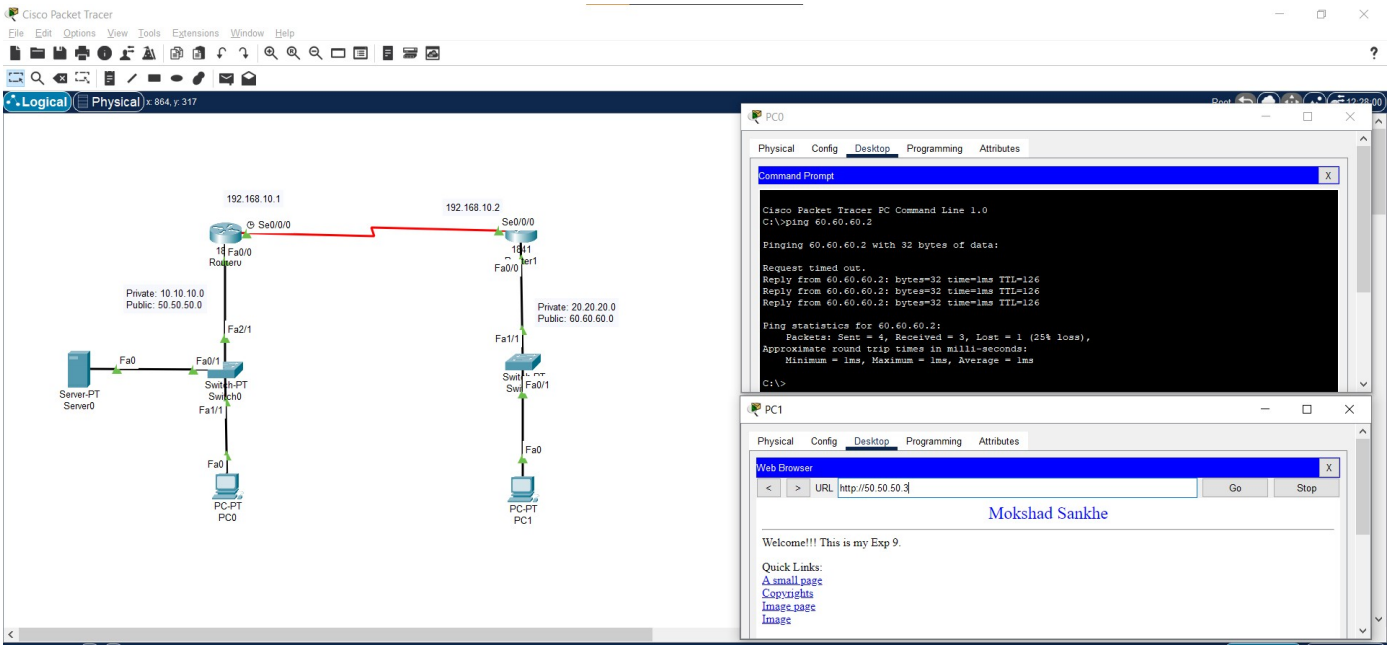
Aim: To configure and verify Static NAT translation

Theory:

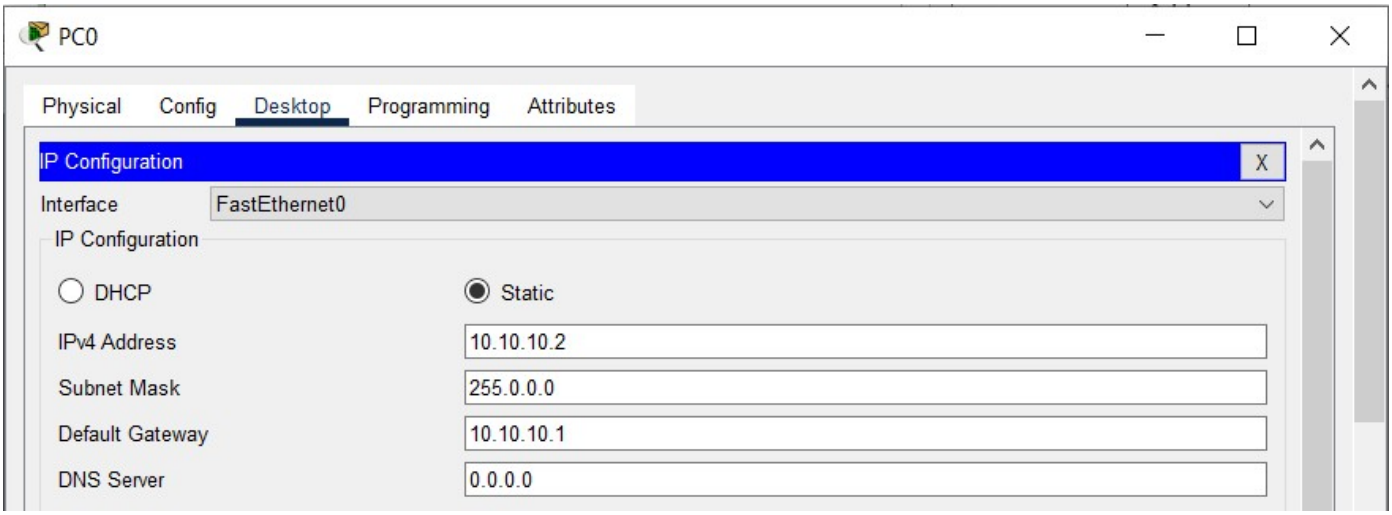
Network address translation (NAT) is a method of mapping an IP address space into another by modifying network address information in the IP header of packets while they are in transit across a traffic routing device. The technique was originally used to bypass the need to assign a new address to every host when a network was moved, or when the upstream Internet service provider was replaced, but could not route the networks address space. Create a network topology as shown below in Cisco packet tracer.

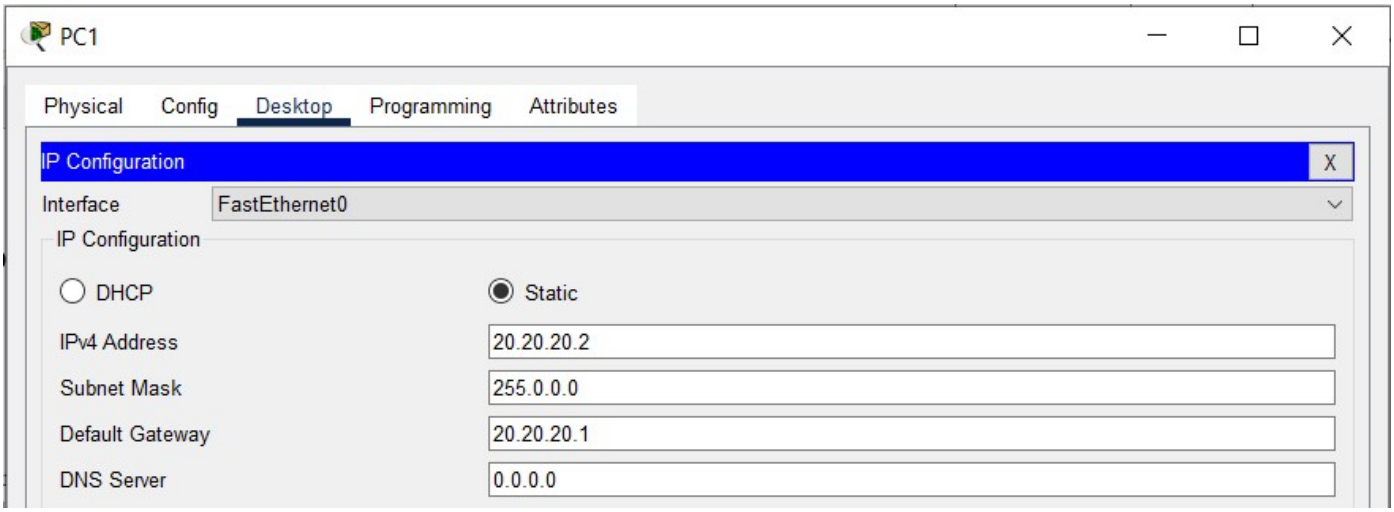
Output:

Main:

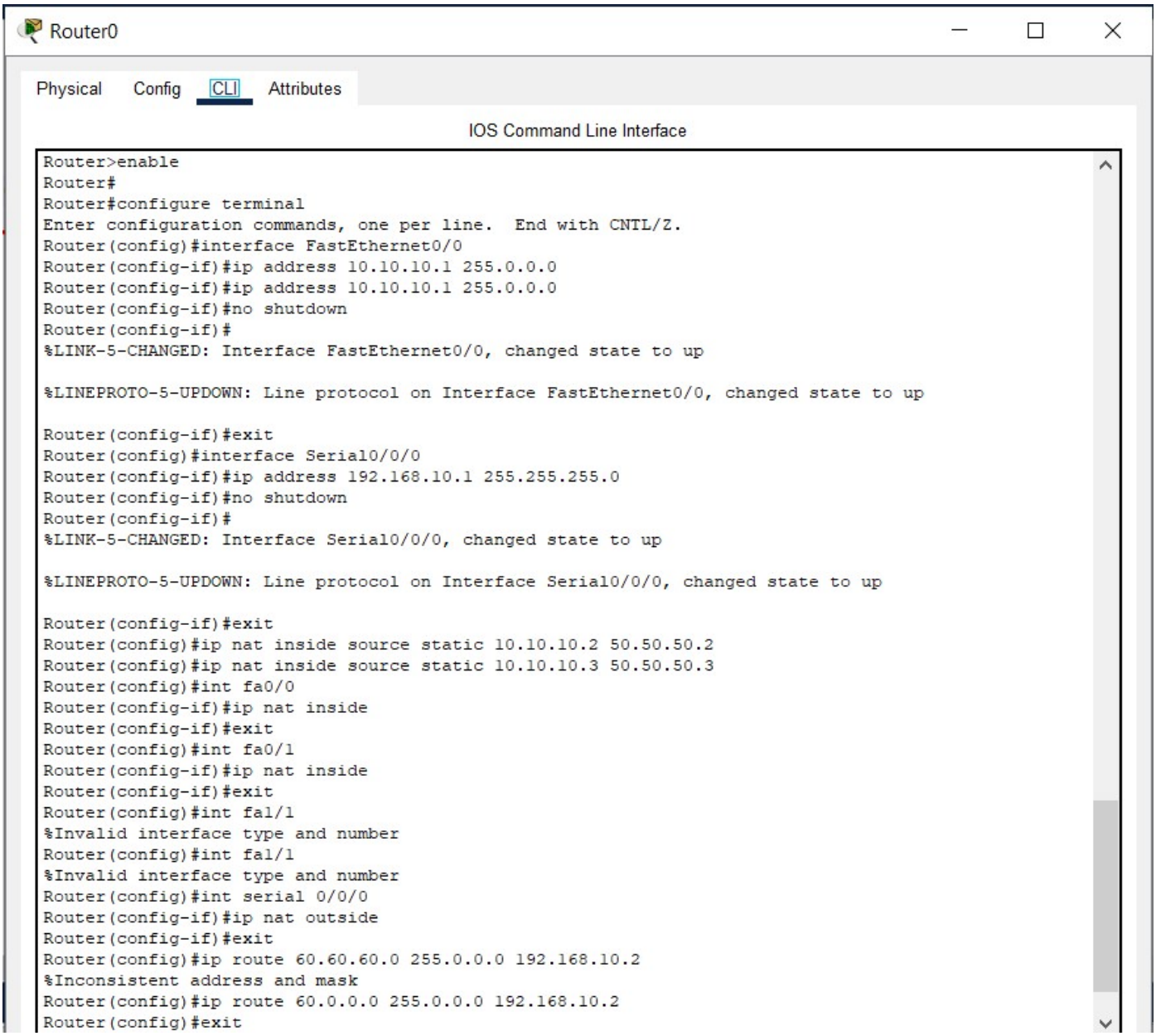


PC IPv4 Configuration:

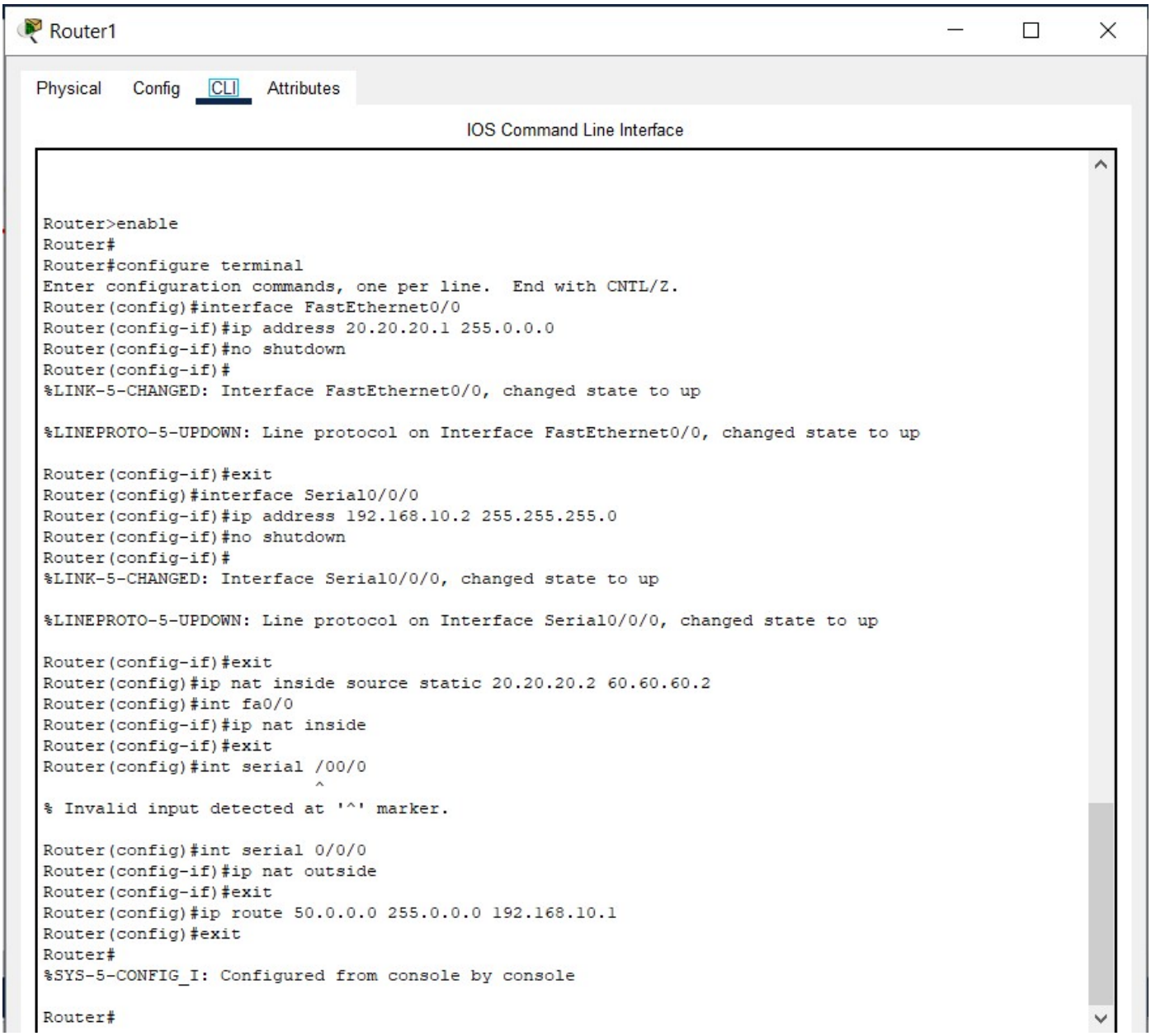




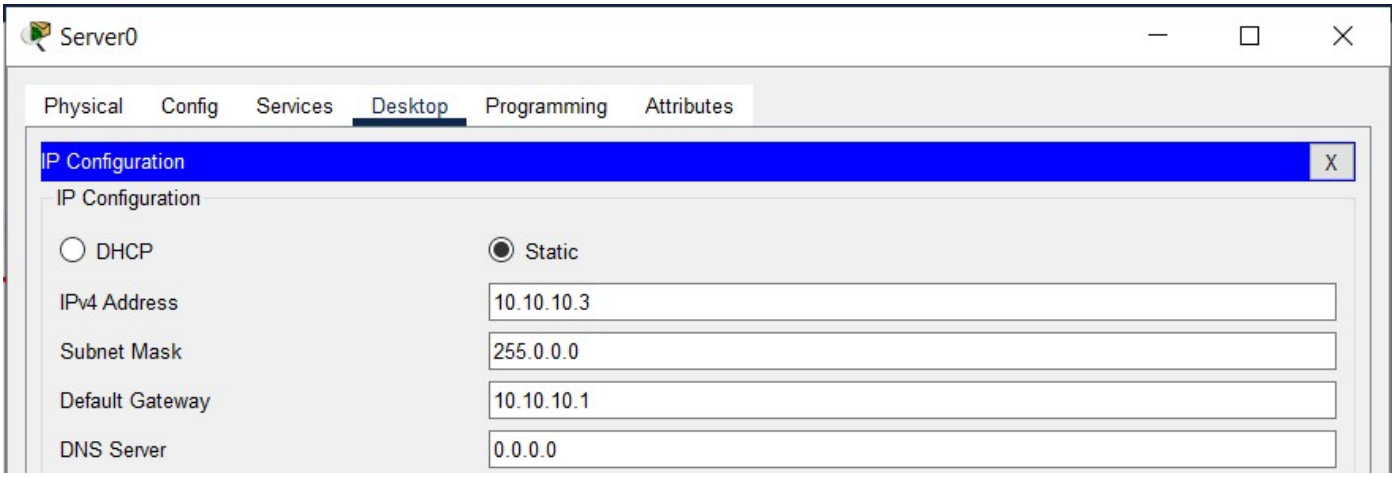
PC1 IPv4 Configuration:Router0 CLI Configuration:



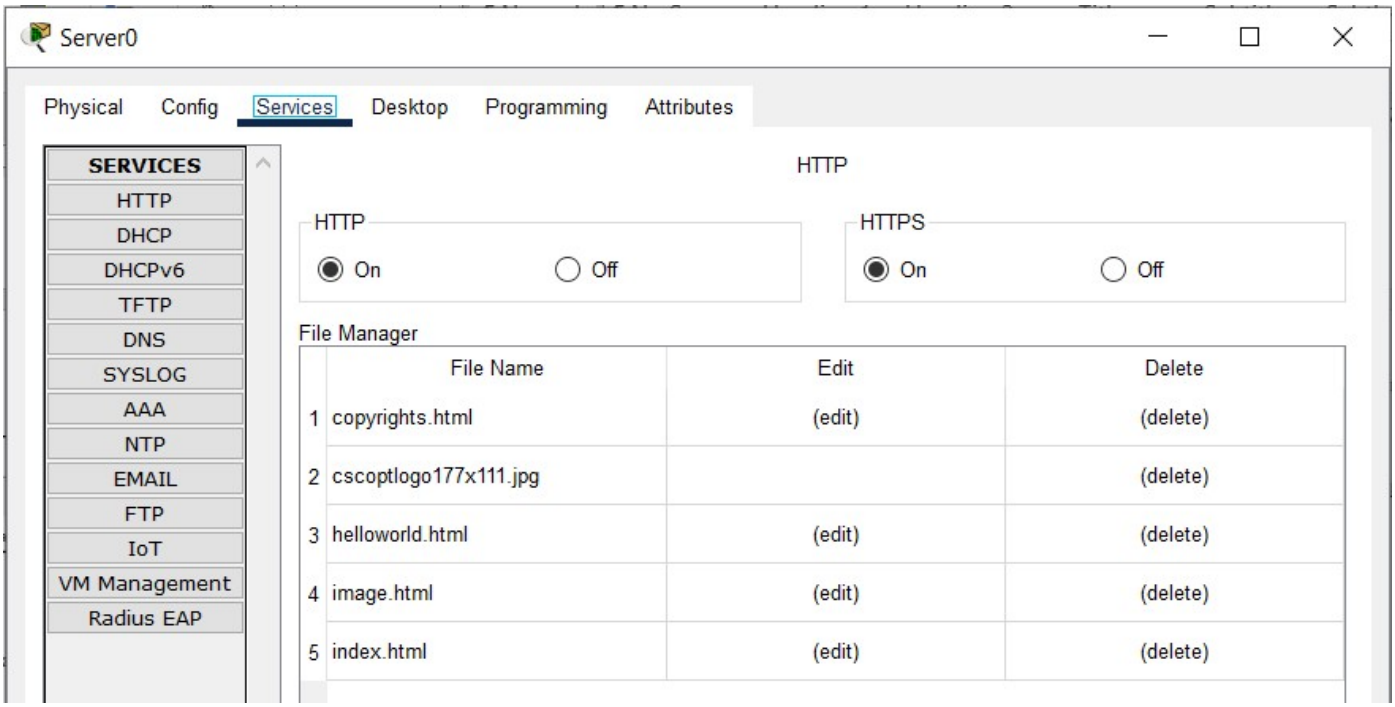
Router1 CLI Configuration:

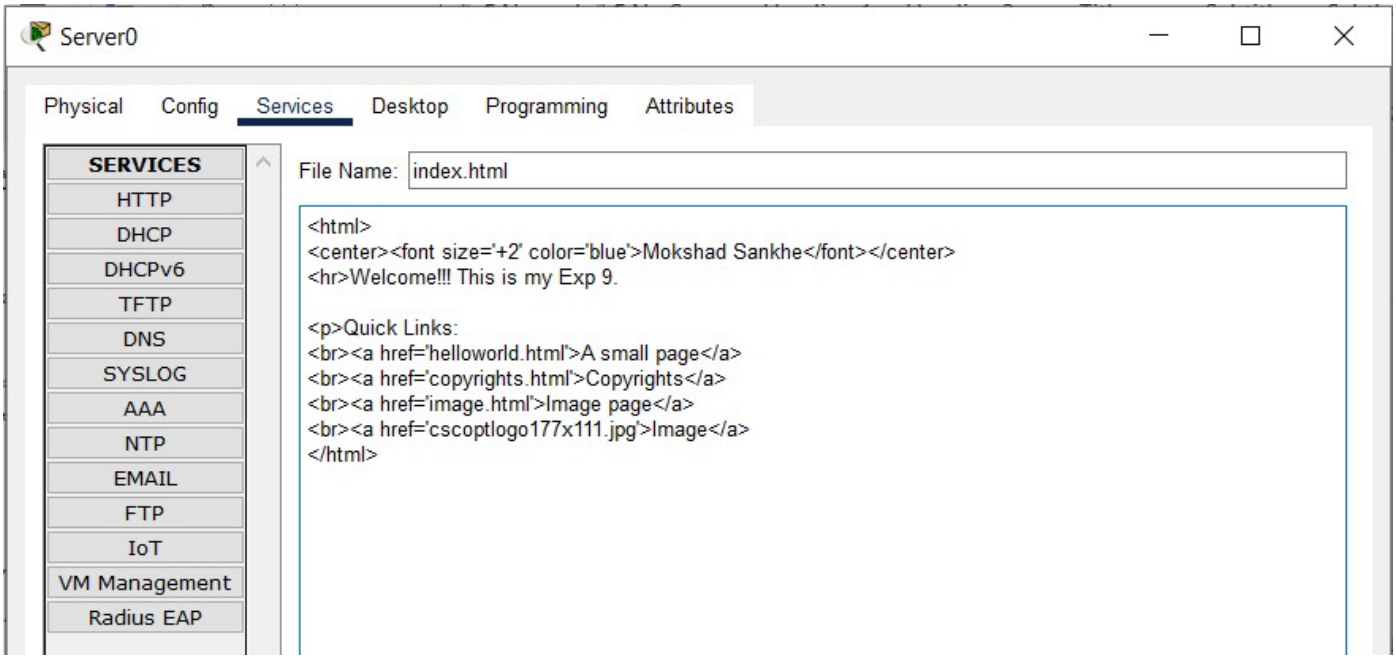


Server Configuration:



Server HTTP Service:





Conclusion:

Simulating NAT using Cisco Packet Tracer and GNS3 provides invaluable practical experience for network engineers and students. These tools offer a realistic environment to study and apply NAT configurations, ensuring that users can design, configure, and troubleshoot NAT implementations effectively. Mastering NAT in these simulated environments enhances one's ability to manage and secure real-world networks, providing a strong foundation for efficient and scalable network design.