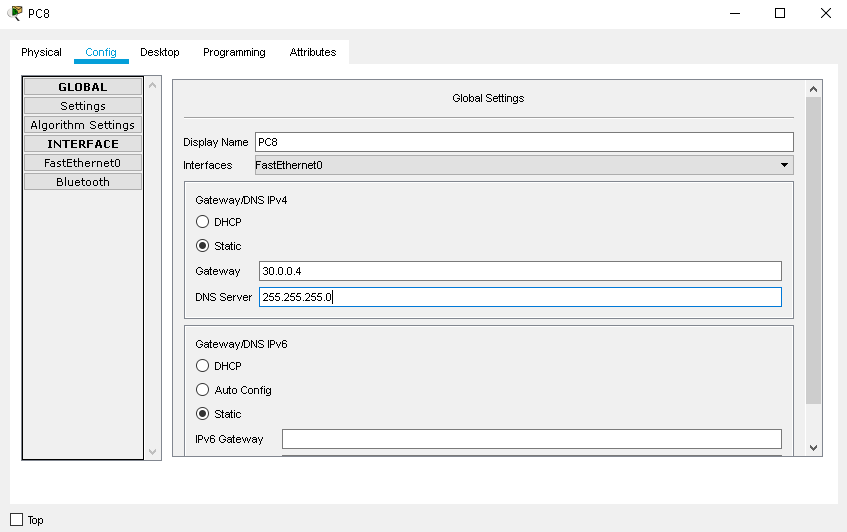
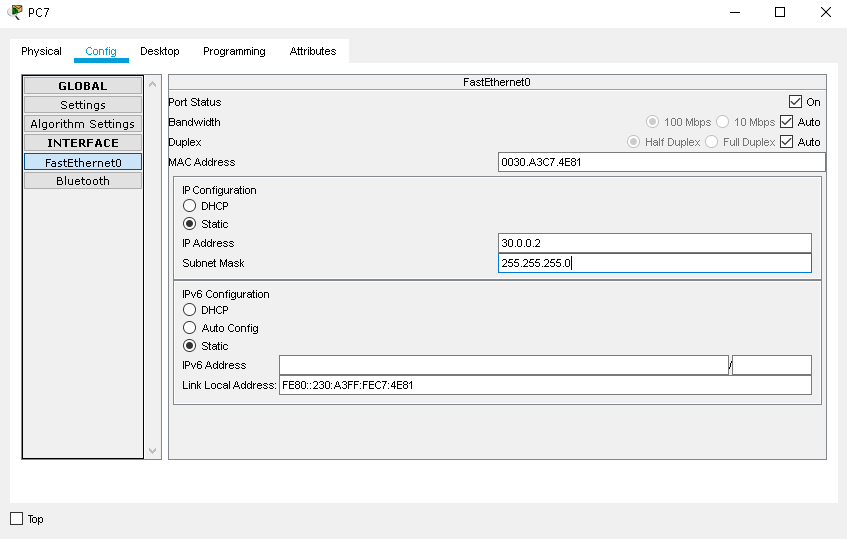
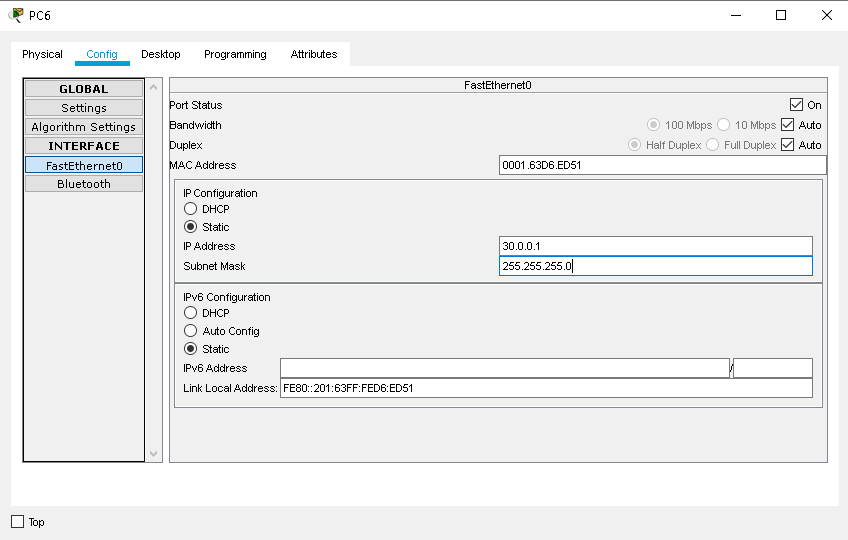
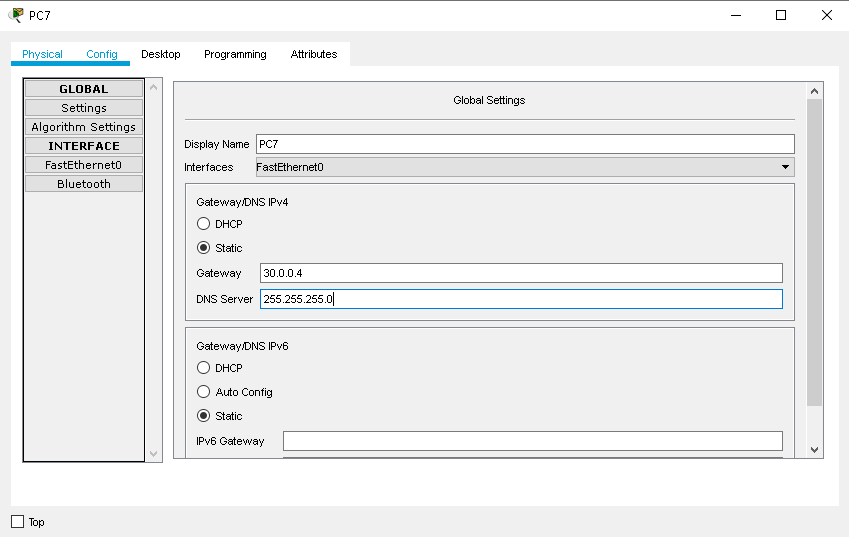
**PRACTICAL NO: 1**

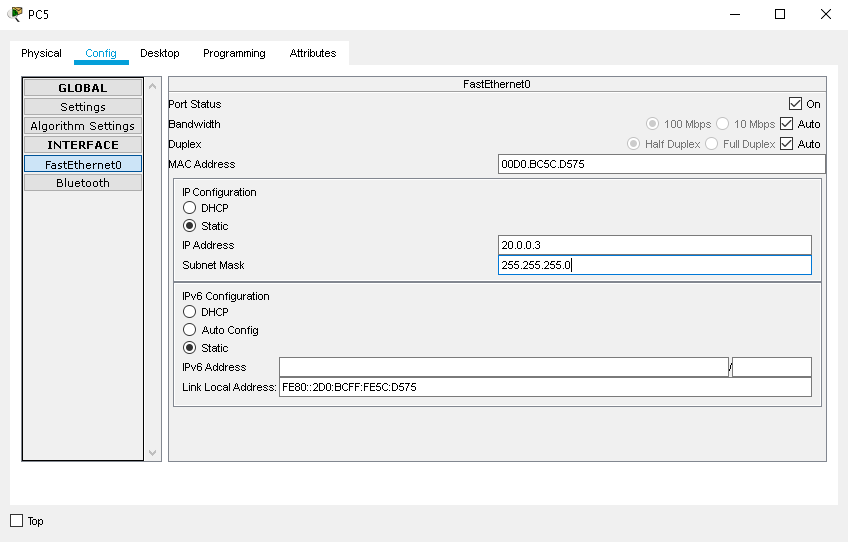
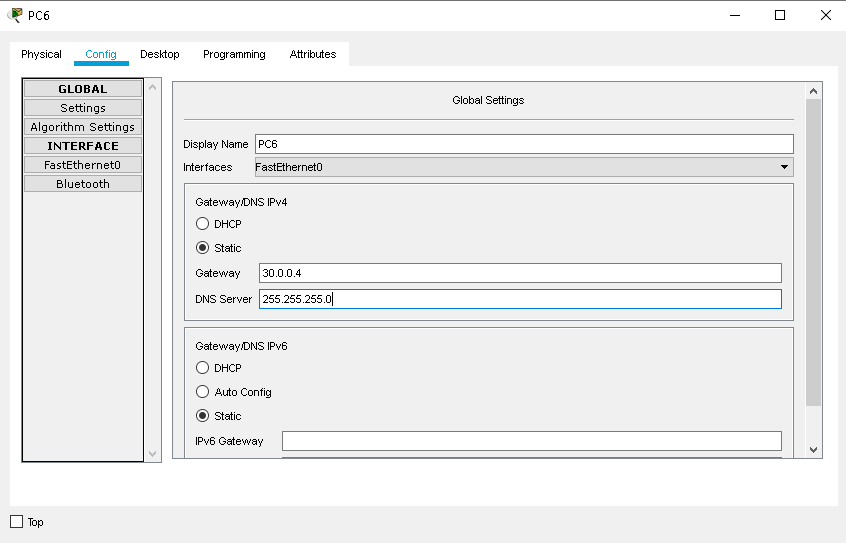
**Aim -** Create a network with three routers with RIPv2 and each router associated network will have minimum three PC. Show connectivity.

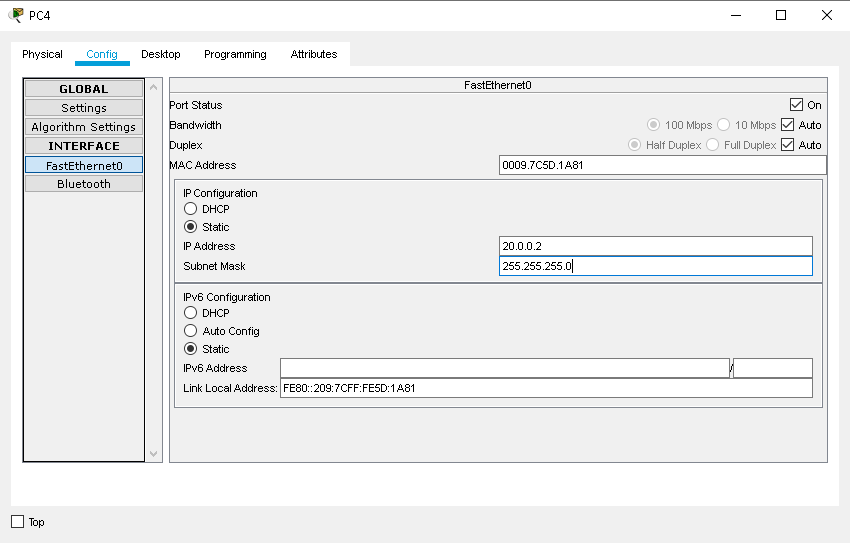
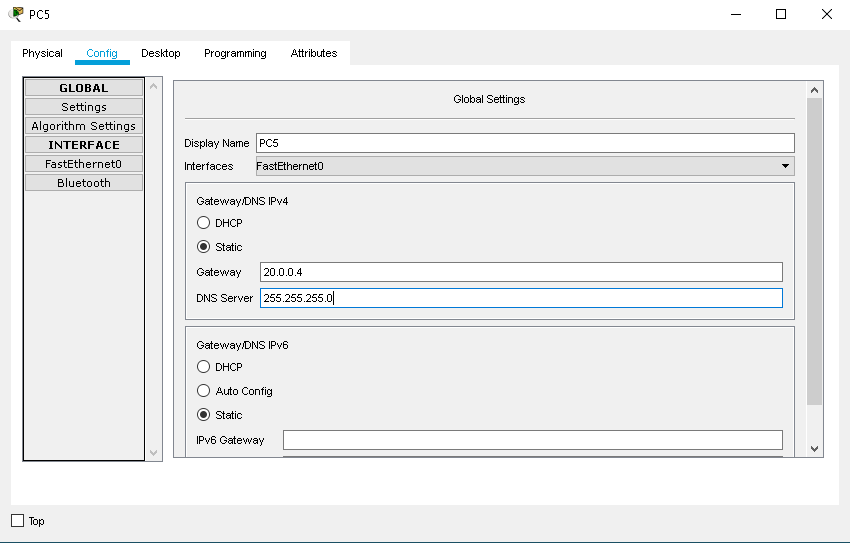
1. Align 9 end-devices as follows:

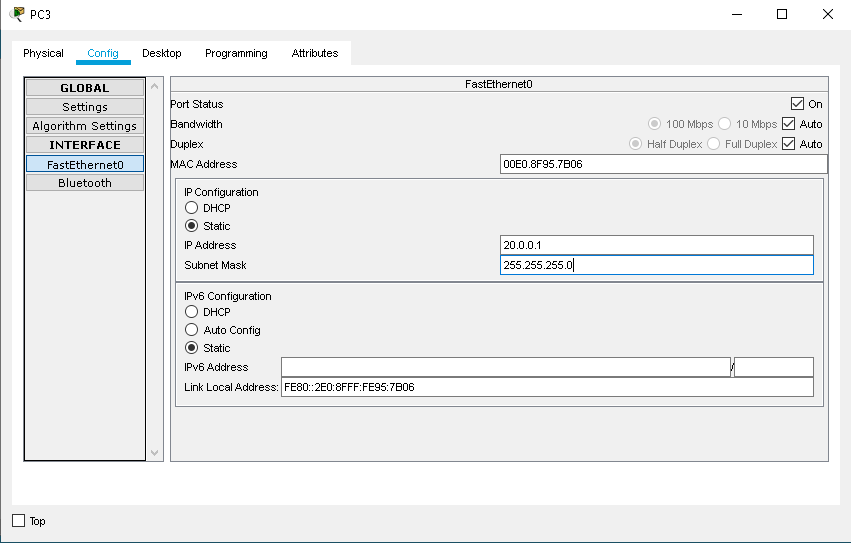
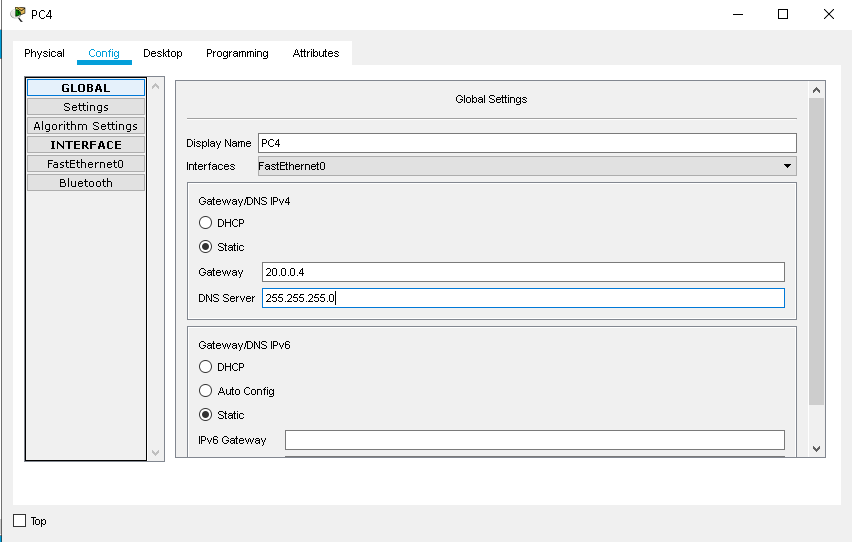


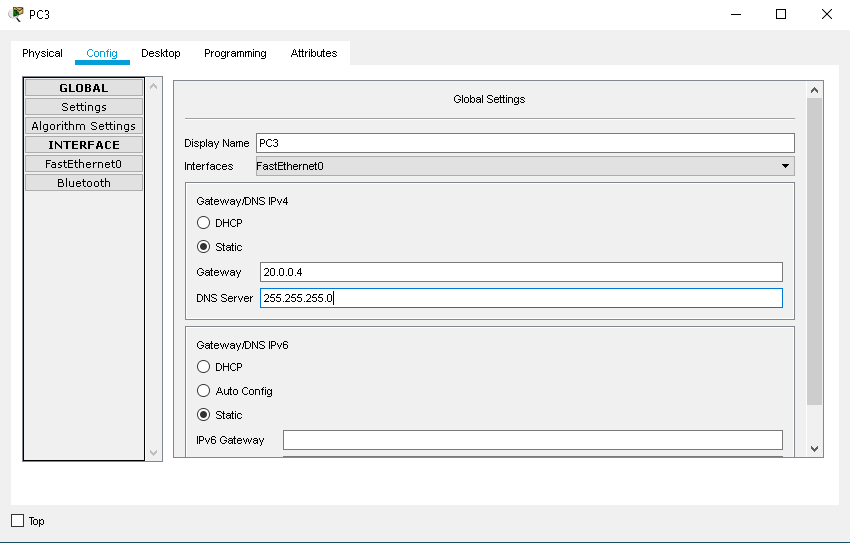
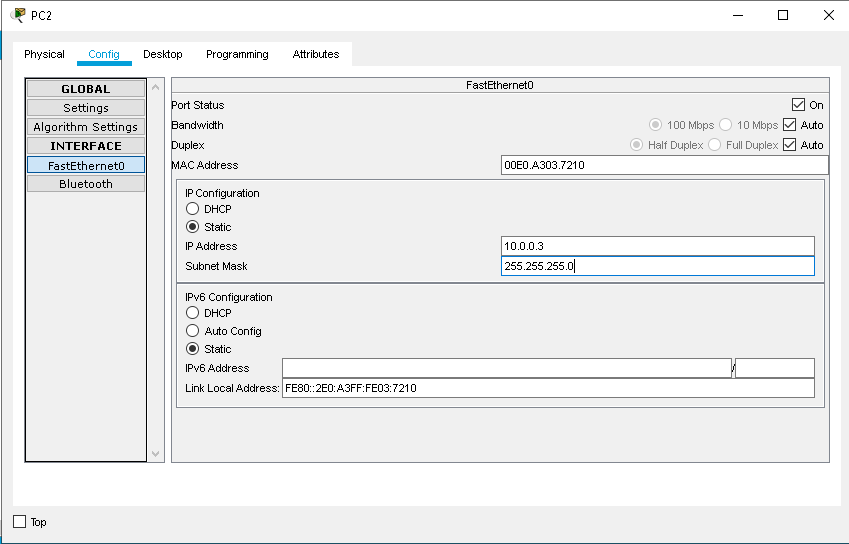
1. Set the DNS, Gateway and Fast Ethernet connections for all the PCs as follows 

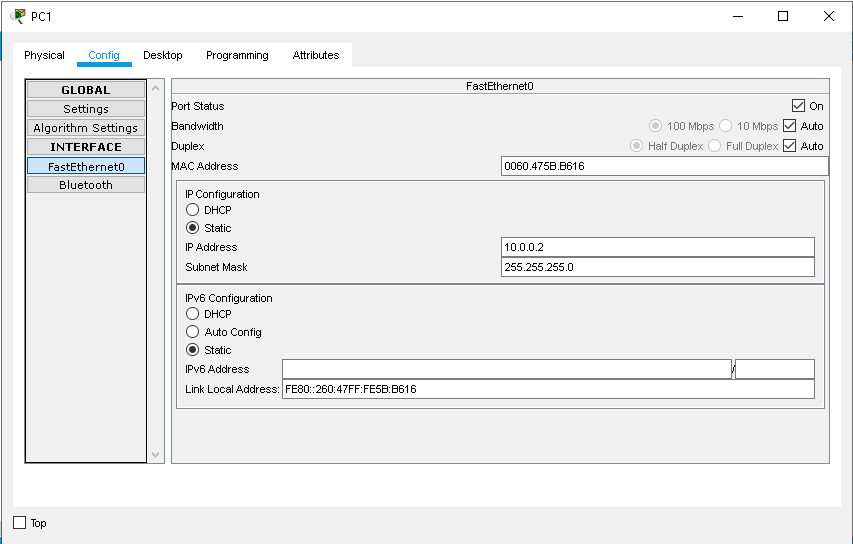
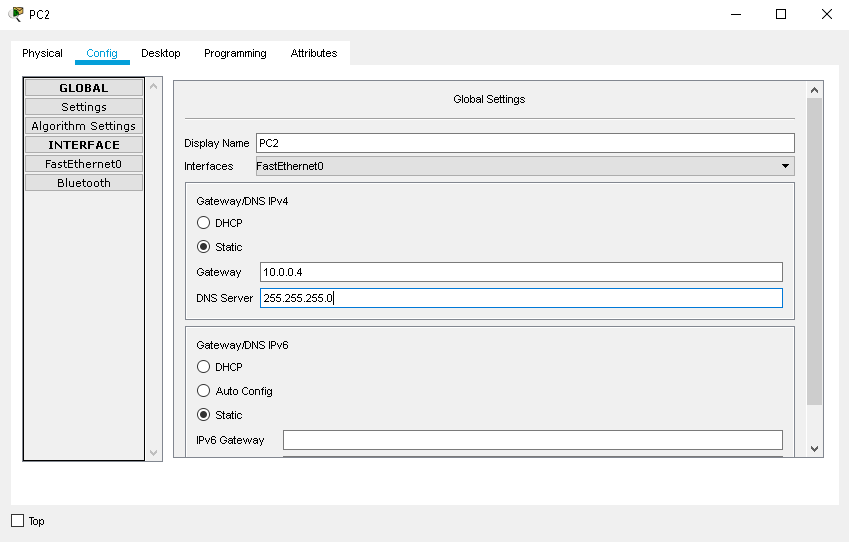


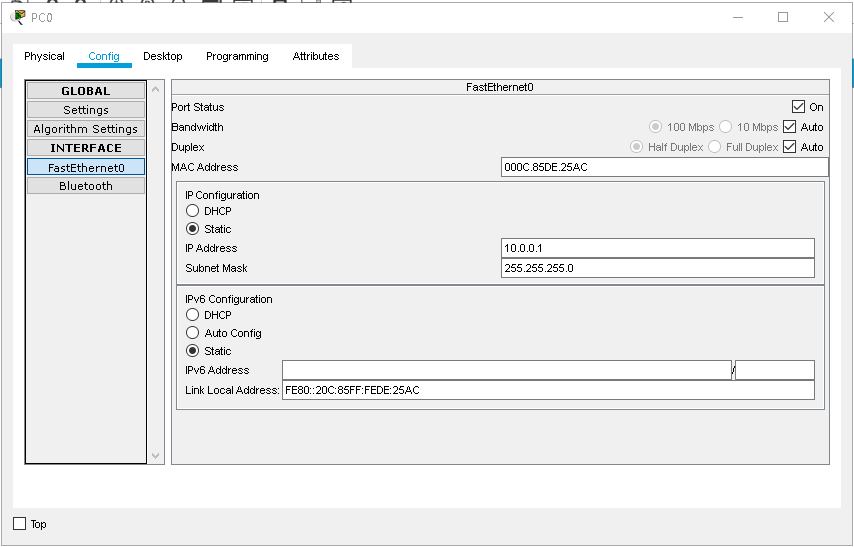
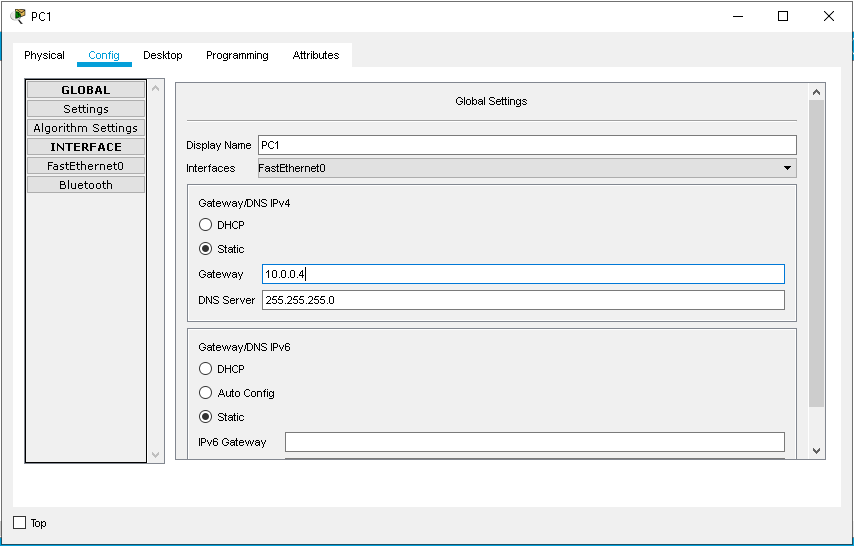


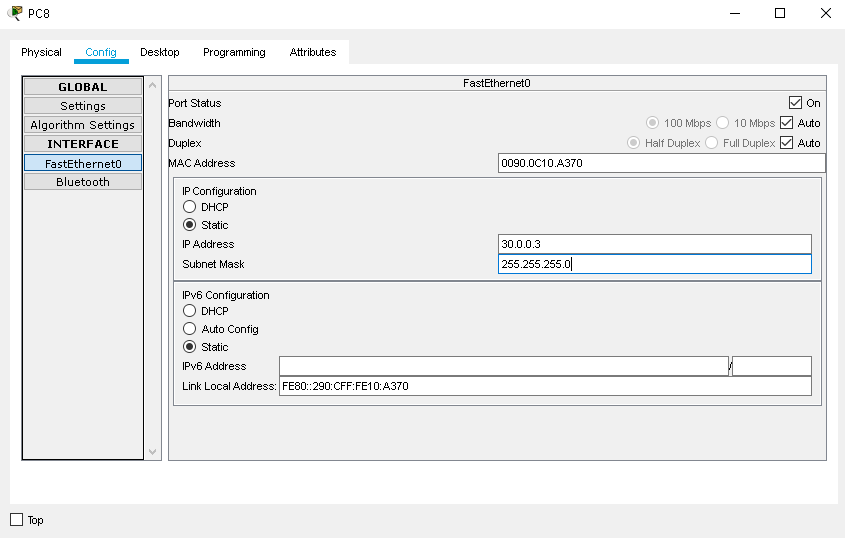
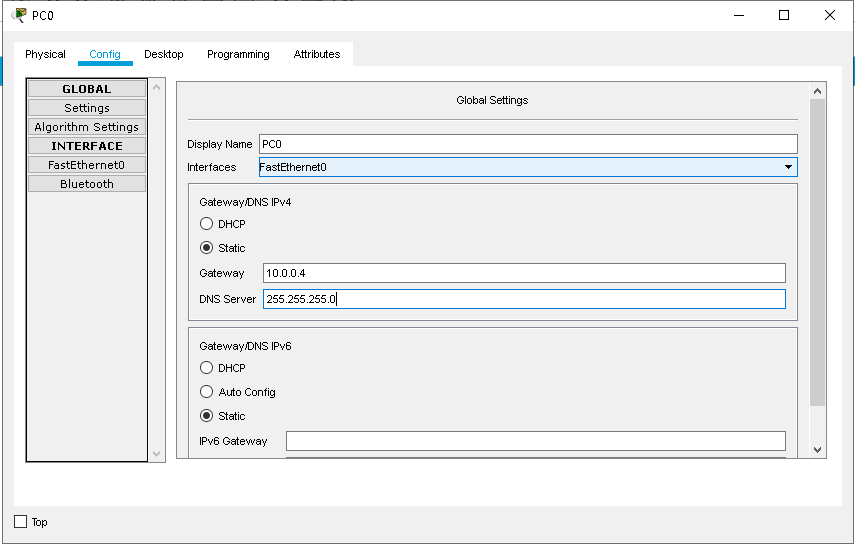


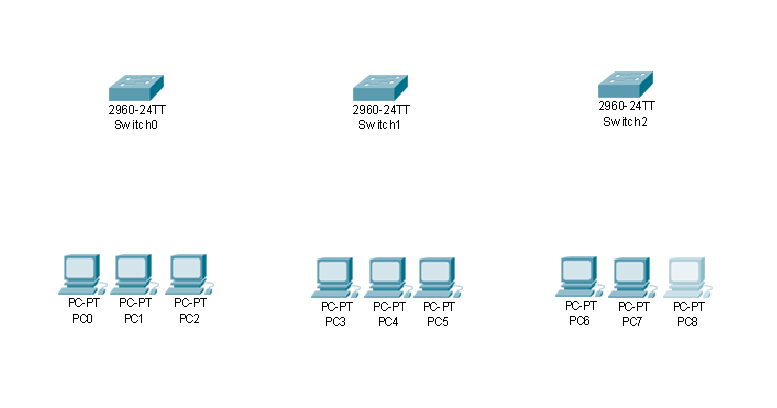


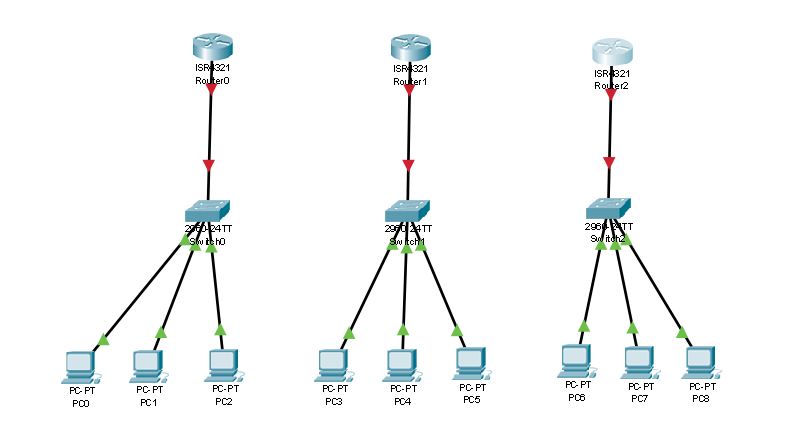




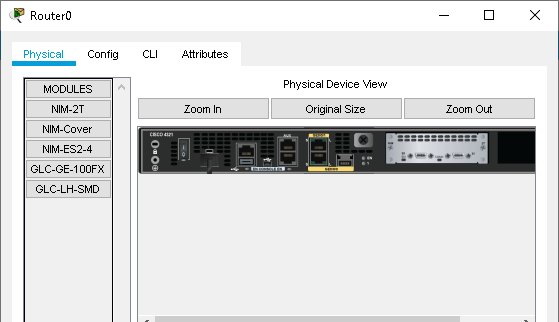




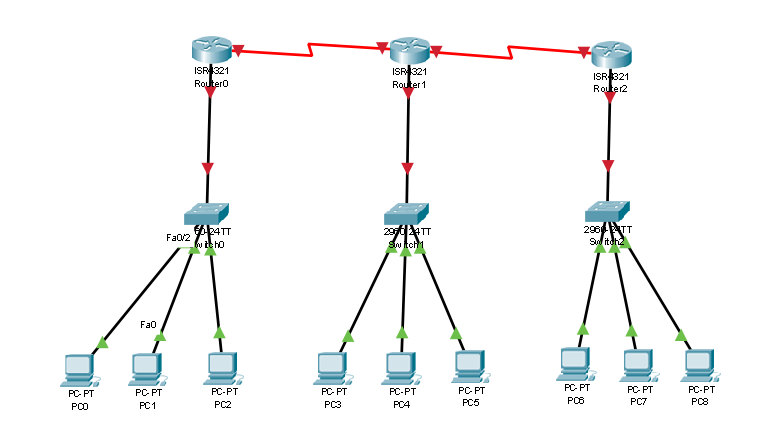
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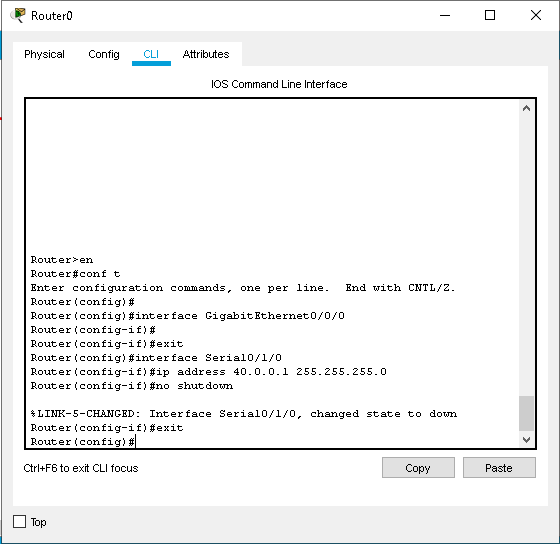
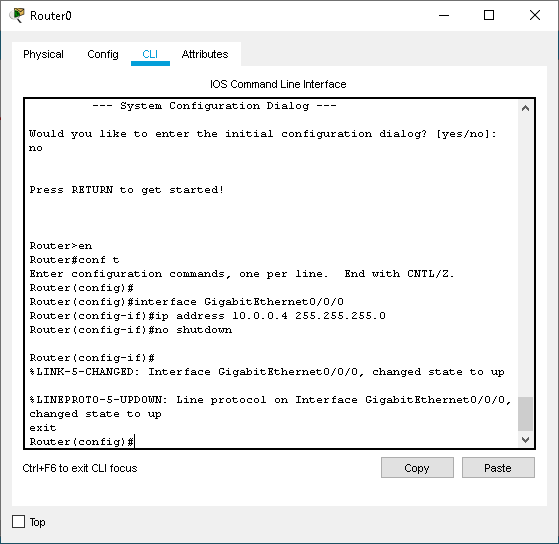
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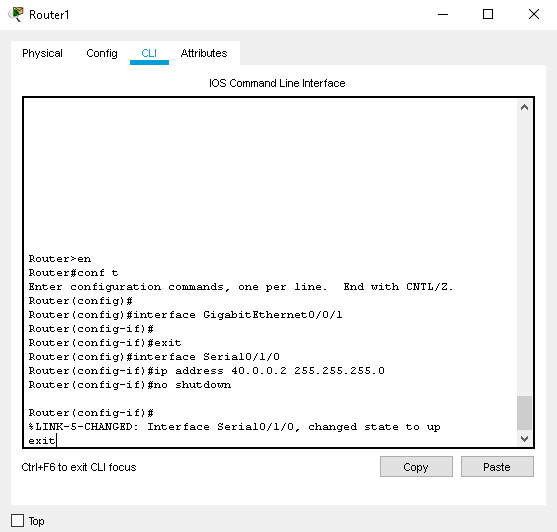
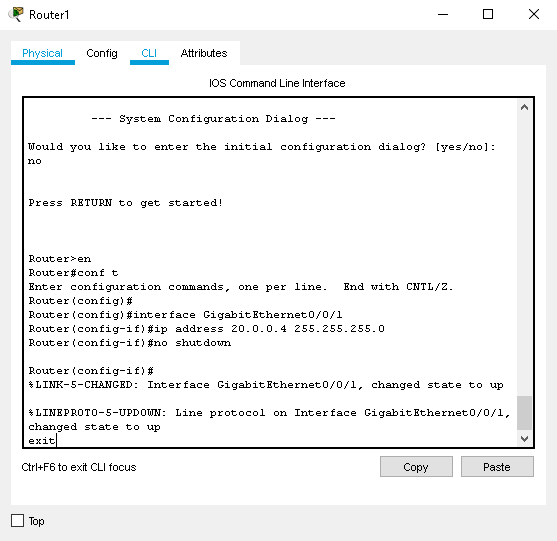
1. Connect the Routers using Serial DTE wires as shown:

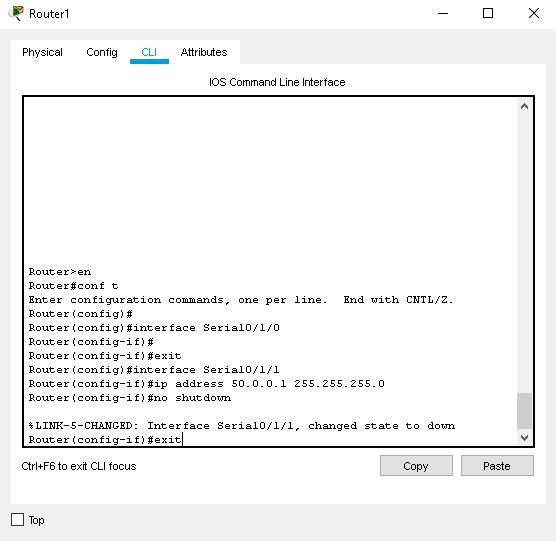


1. Configure Router 0 using the Command Line Interface as follows:

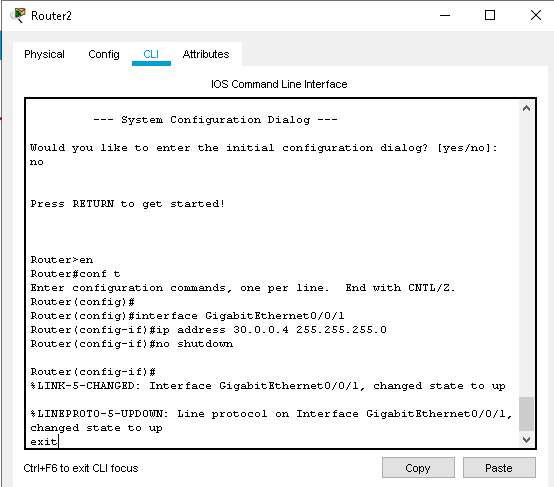
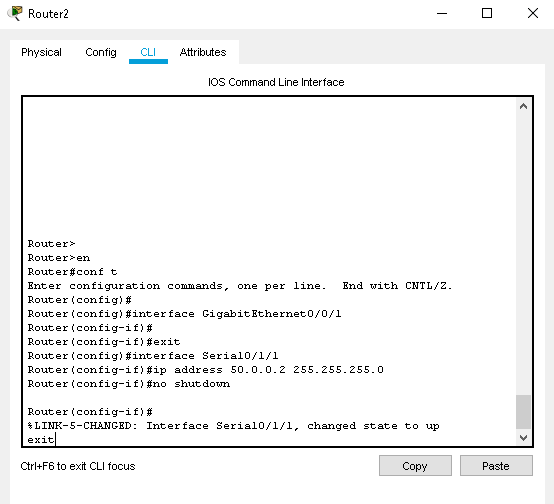


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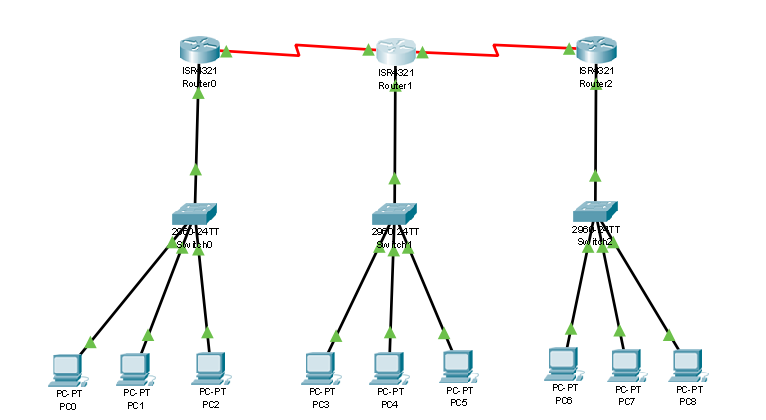




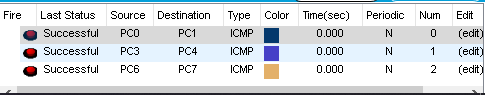
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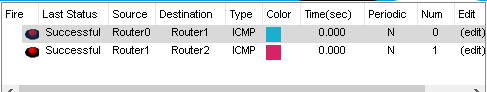


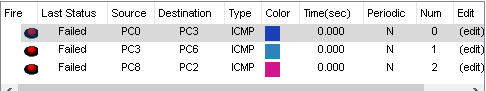
1. The Final connection will look as shown:

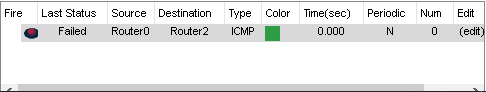


1. Note how intra-connection packet sending succeeds and inter-connection fails:

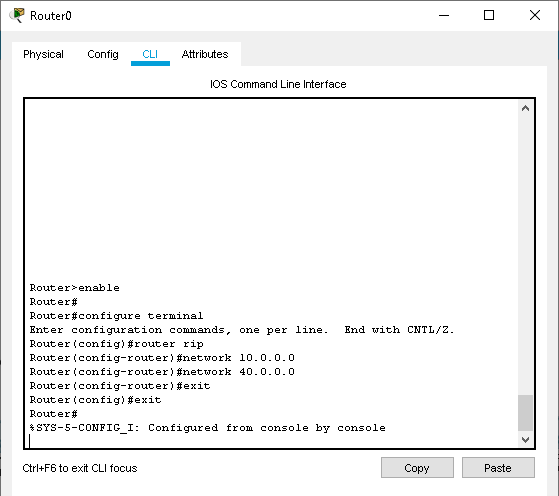




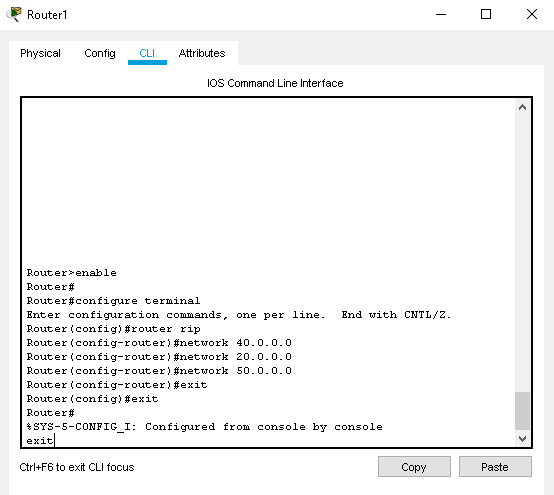




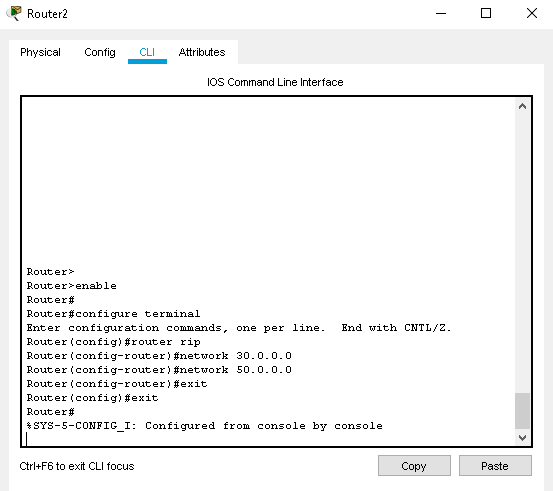
1. Configure RIP Routing in Router 0 as follows:



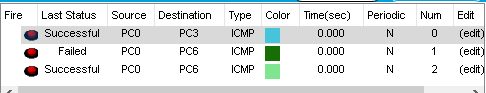
1. Configure RIP Routing in Router 1 as follows:

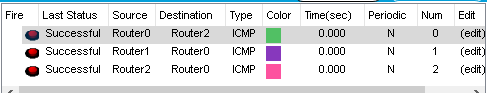


1. Configure RIP Routing in Router 2 as follows:



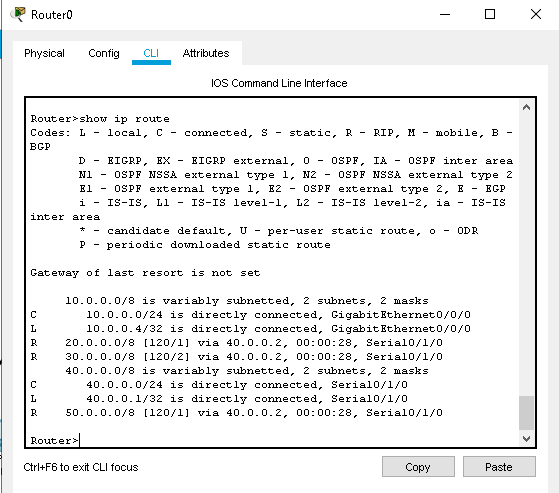
1. Sending packets after RIP routing gives the following result:



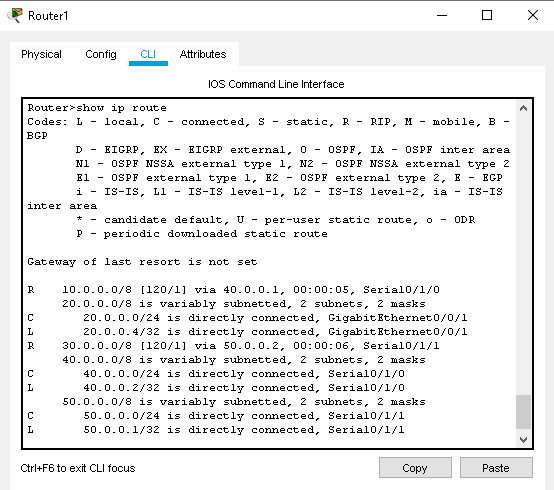


1. Finally, type ‘show ip route’ in the Router’s CLI to obtain the IP route results:

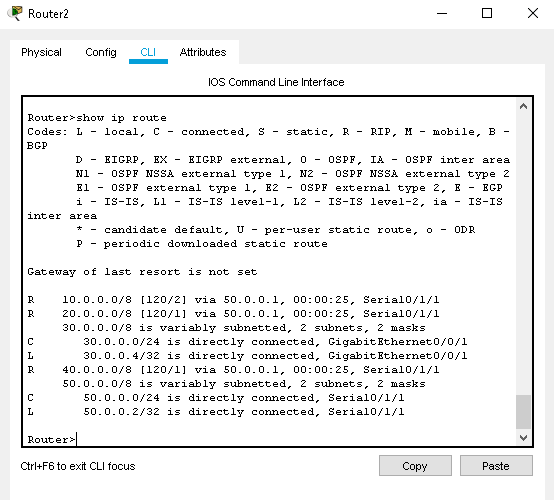
ROUTER 0



ROUTER 1



ROUTER 2



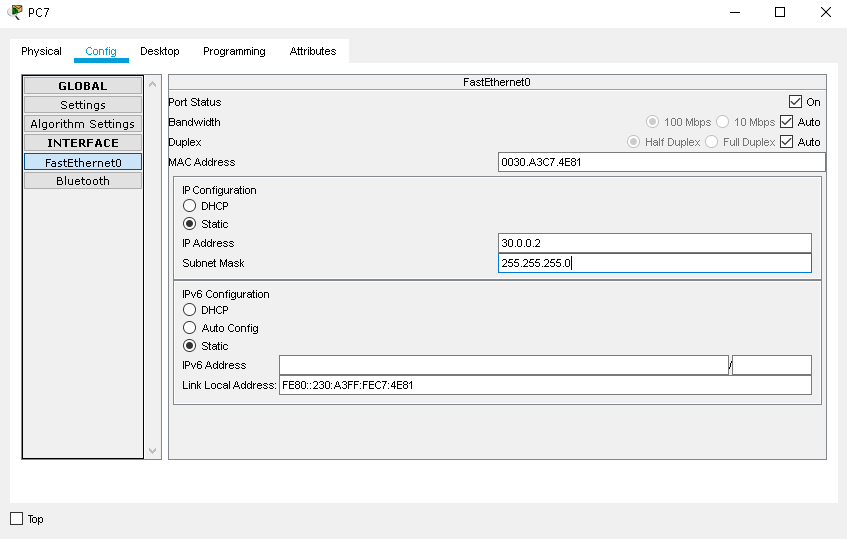
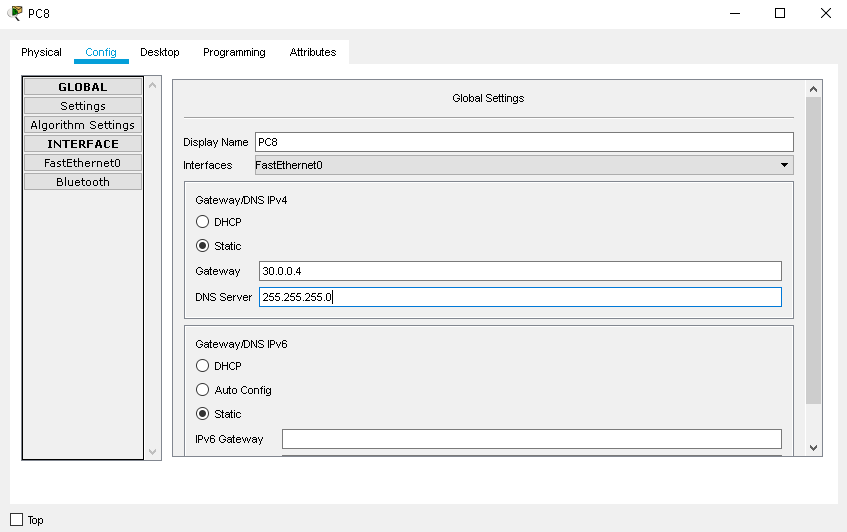
**CONCLUSION:** We have learnt to create a RIPv2 with three routers as shown above.

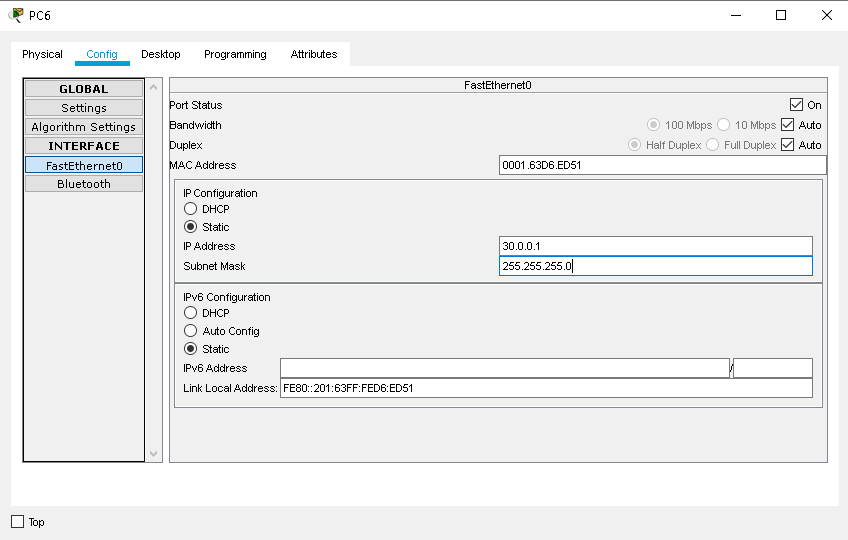
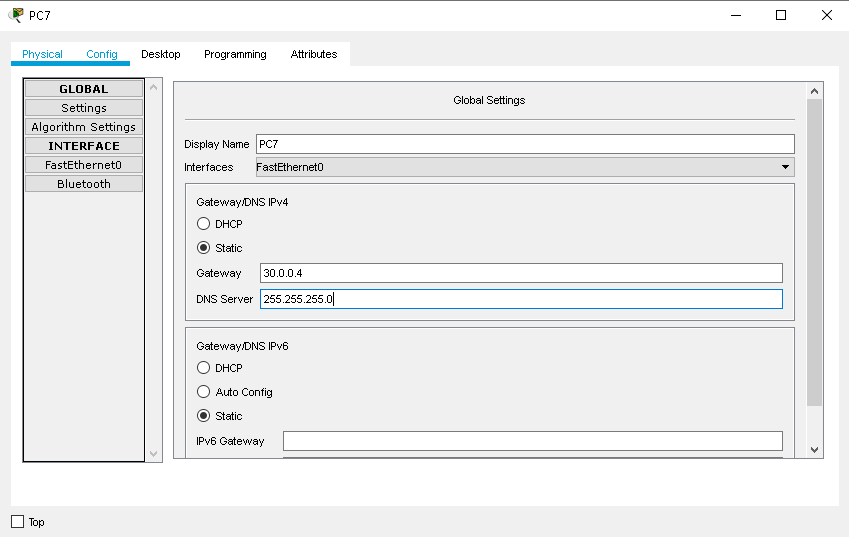
**PRACTICAL No: 2**

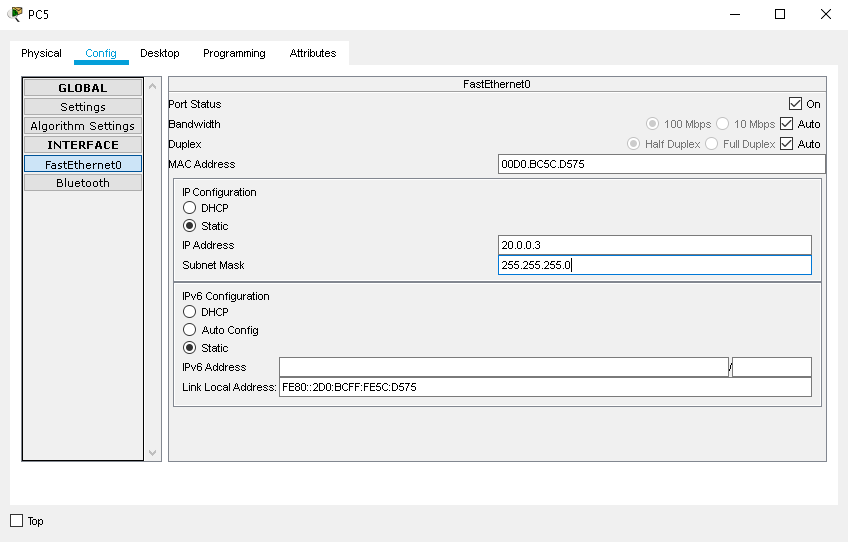
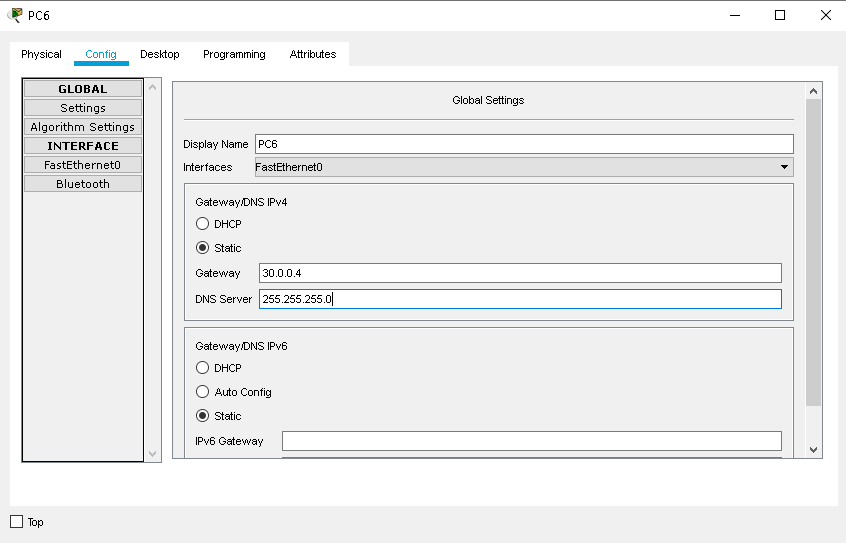
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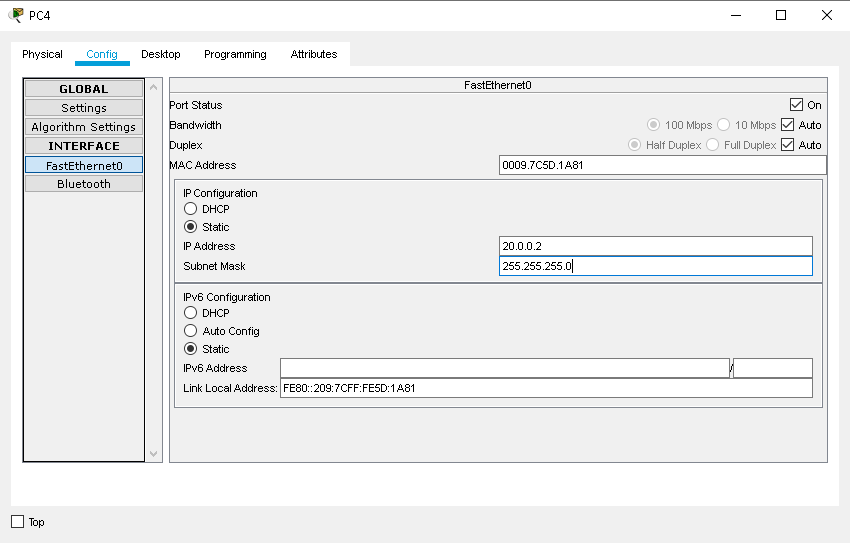
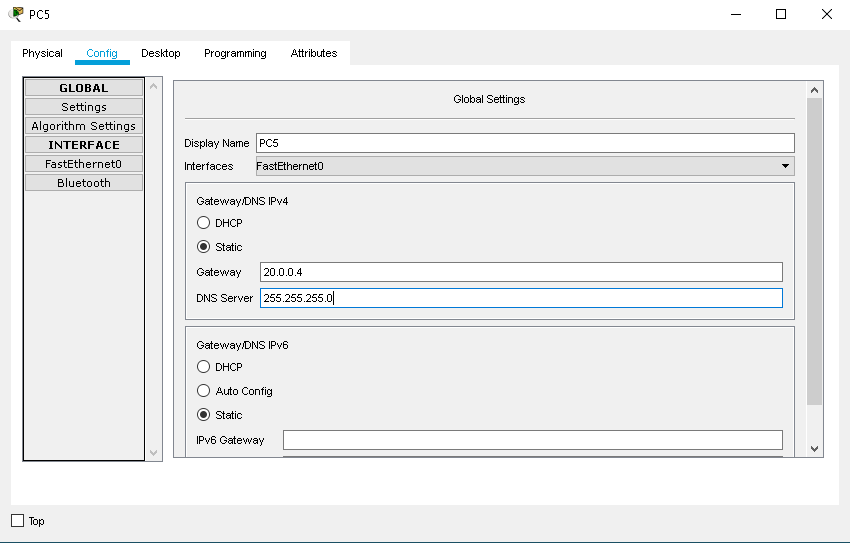
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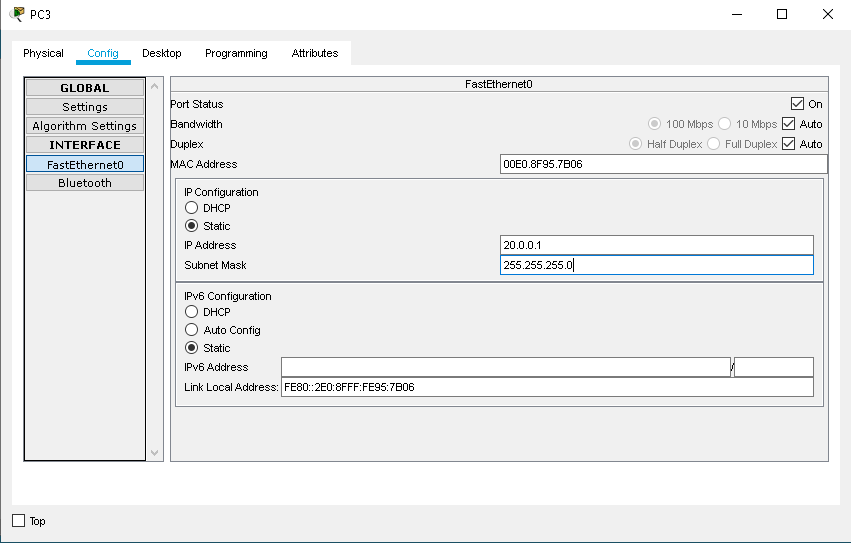
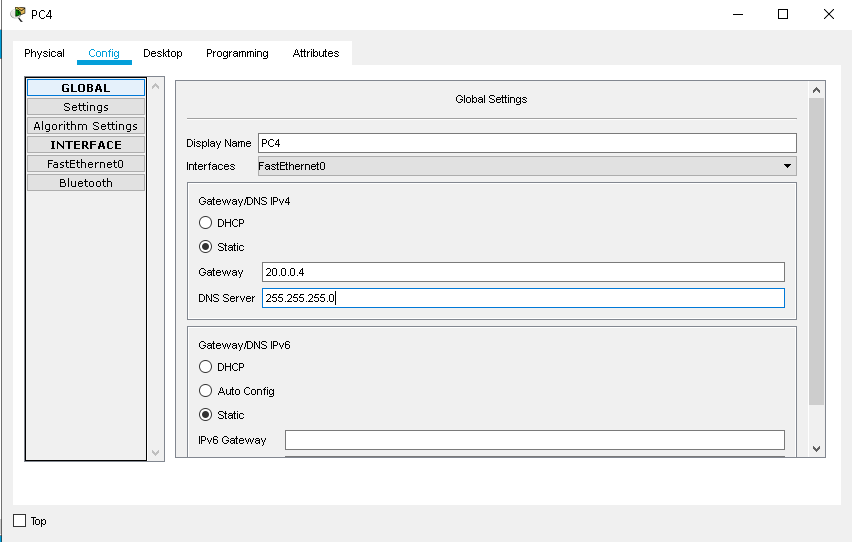


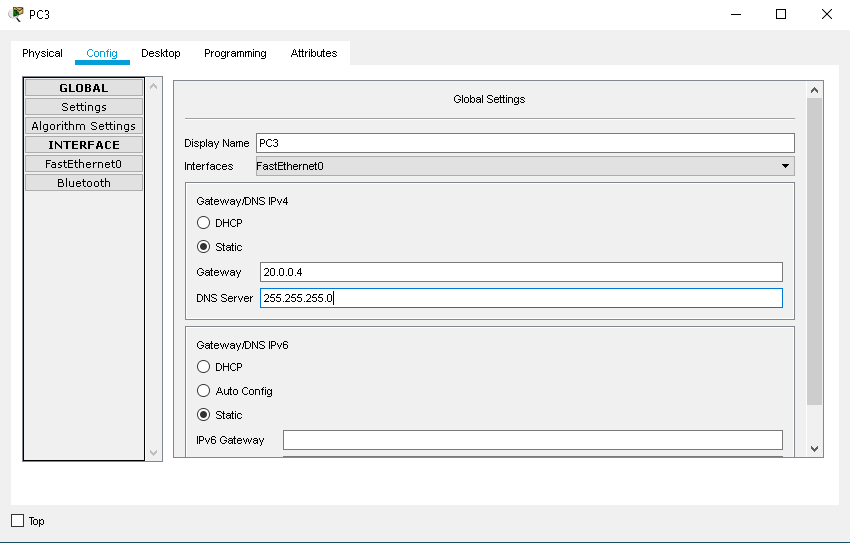
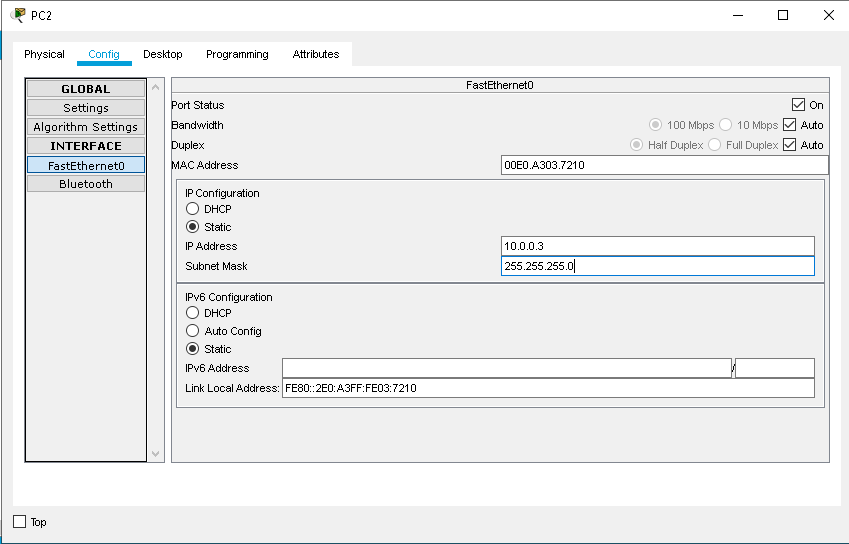
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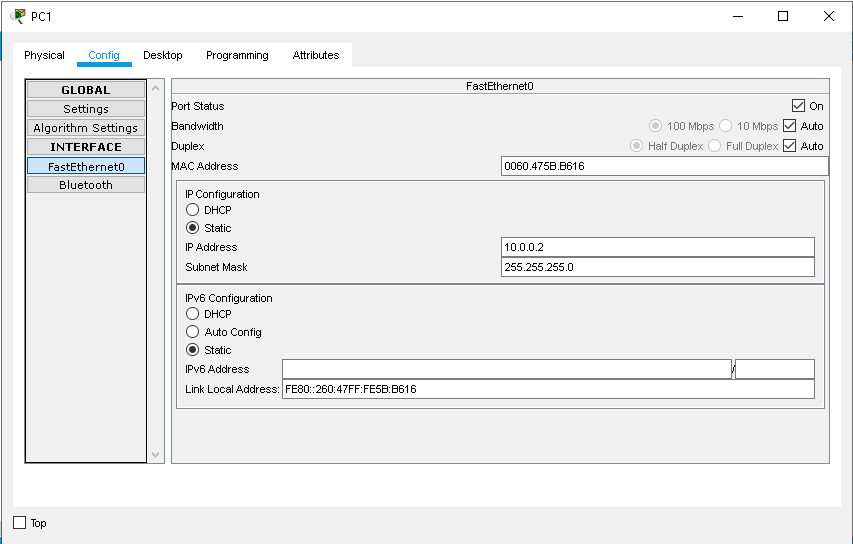
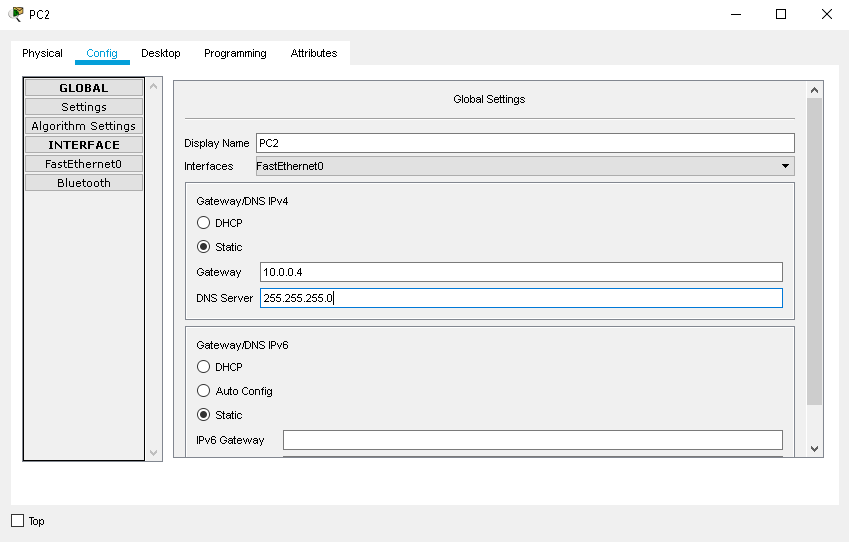


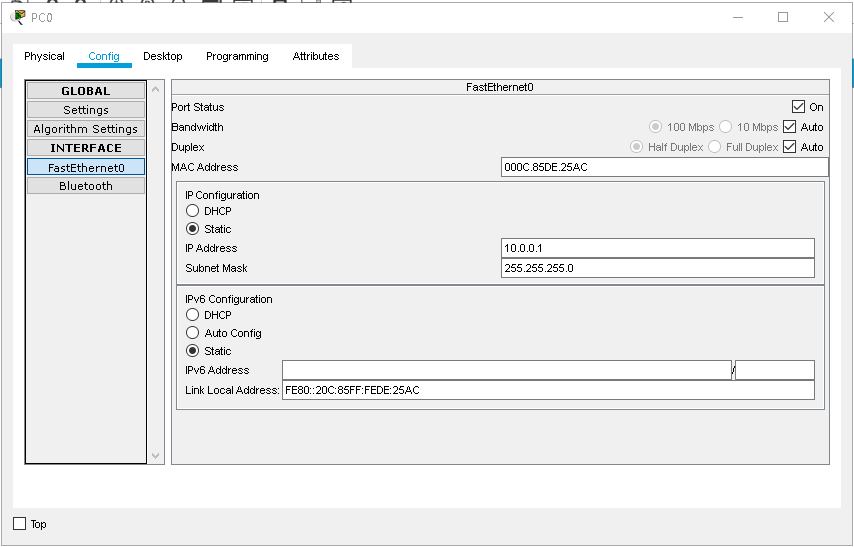
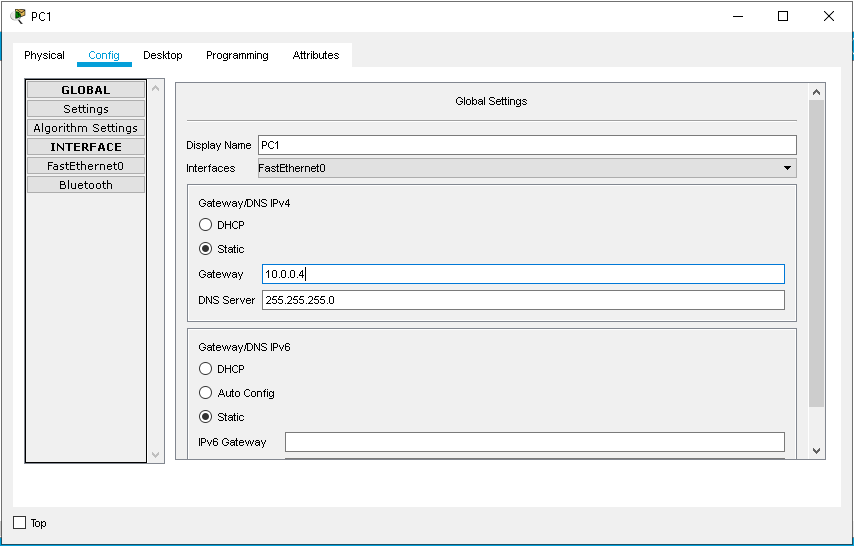


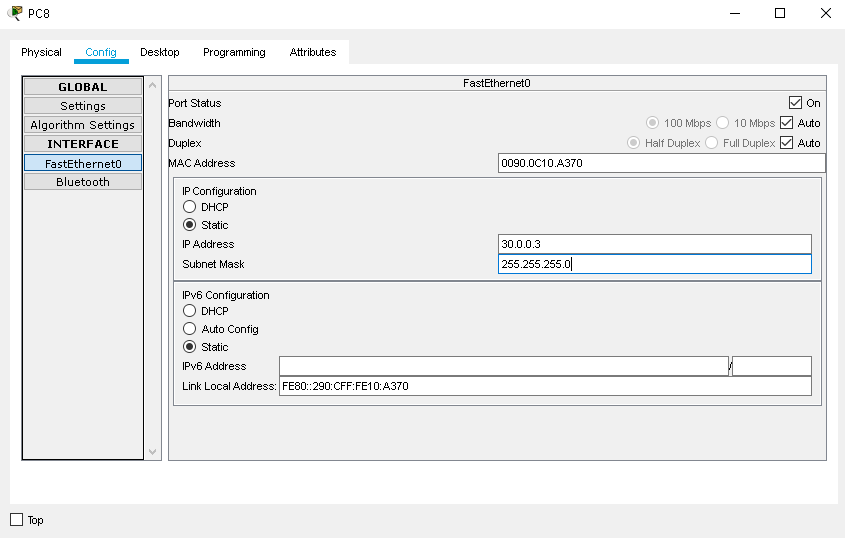
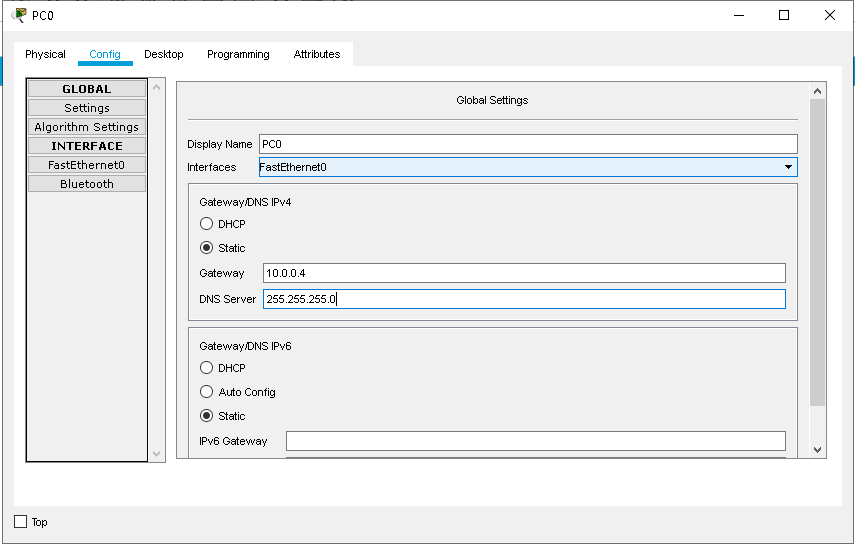


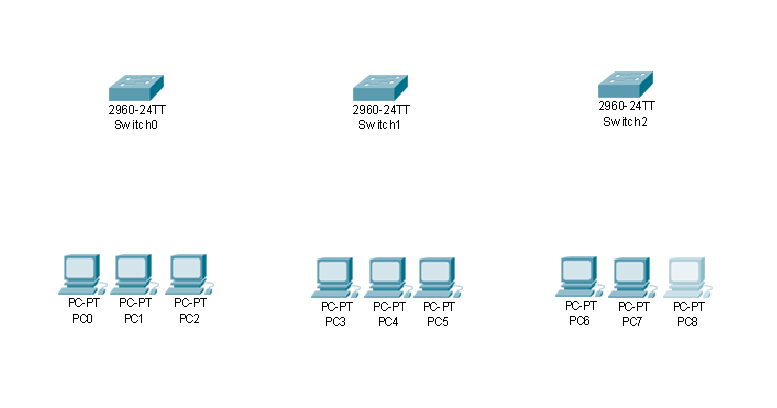


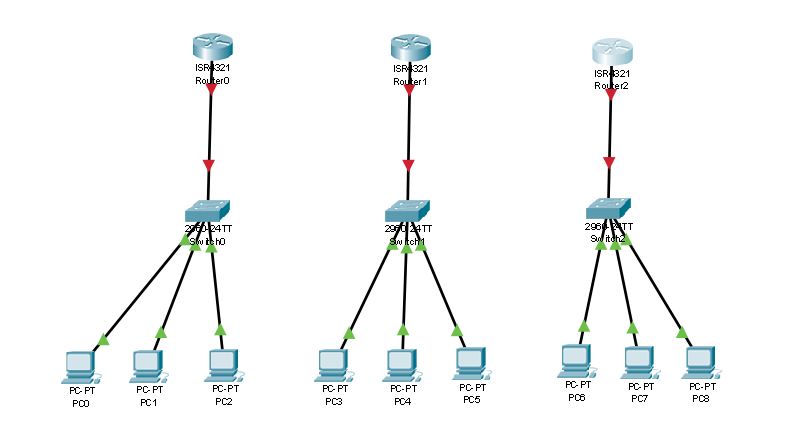




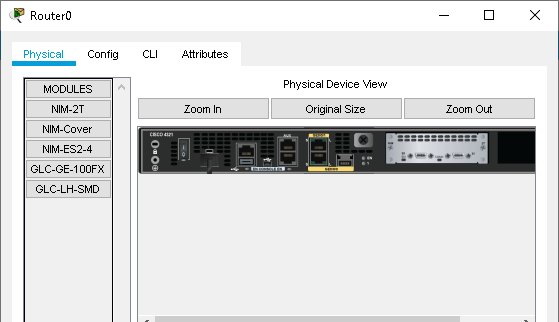




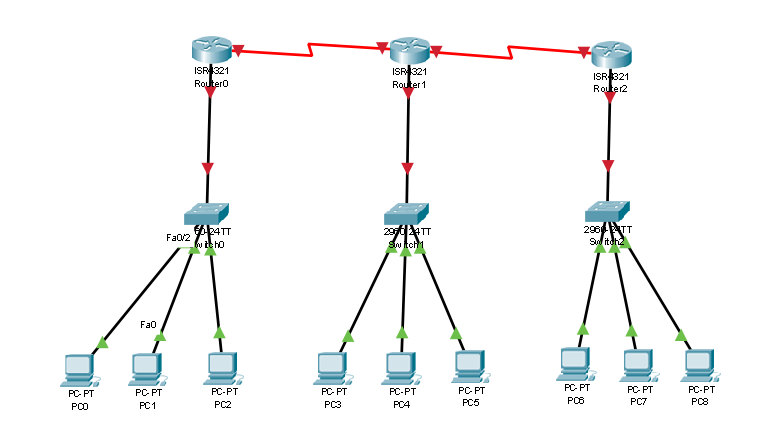
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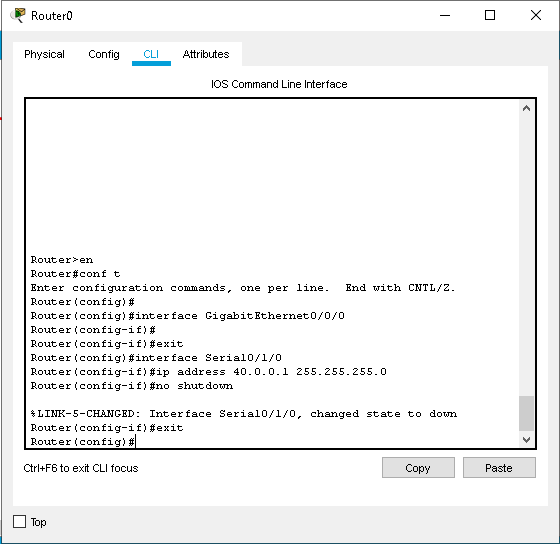
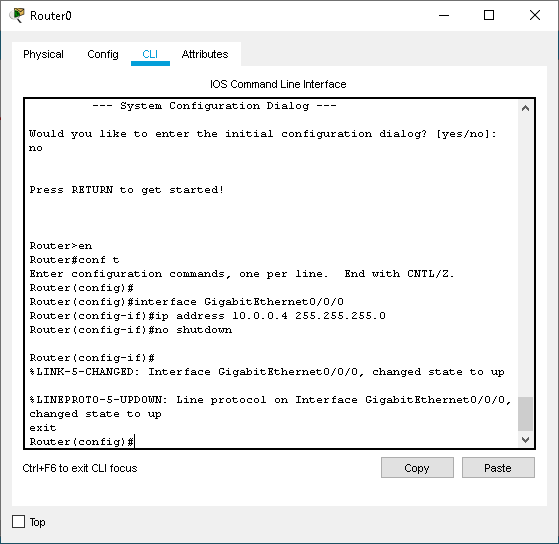
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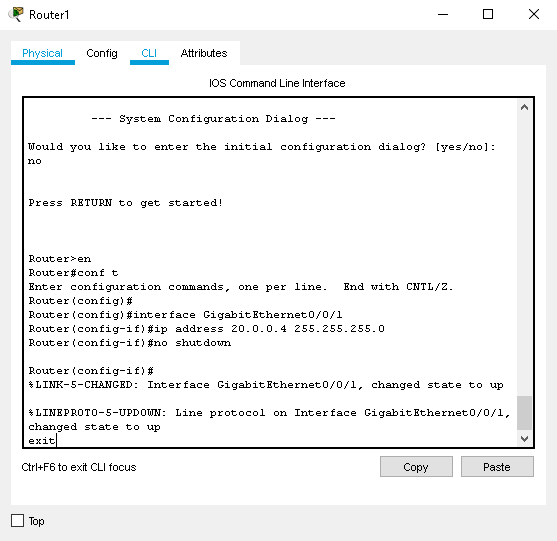
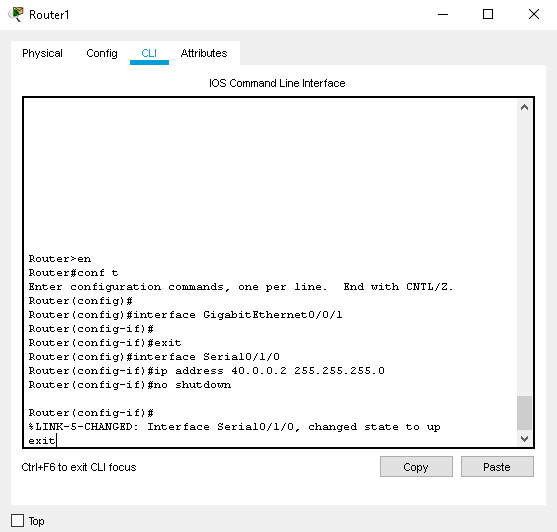
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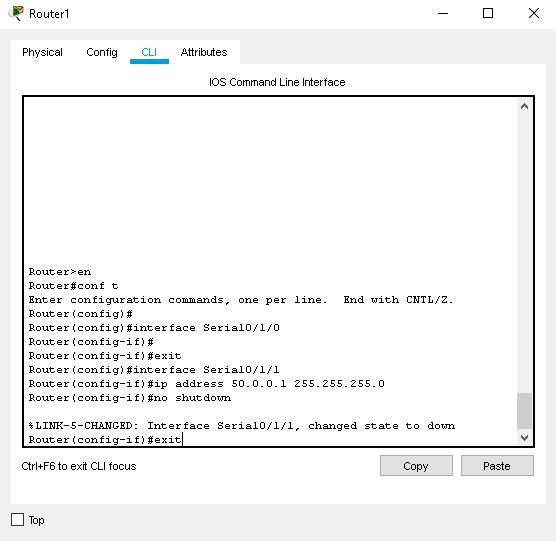


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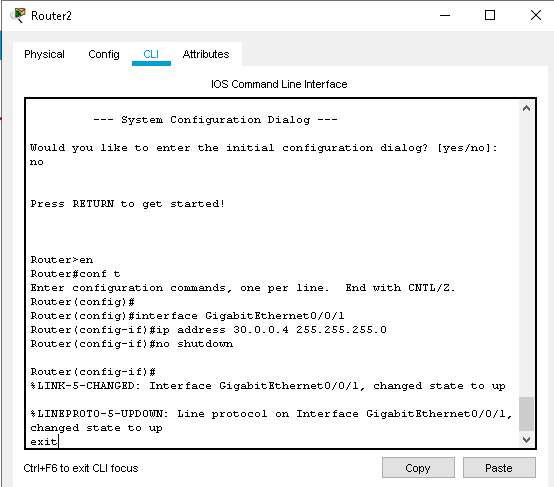
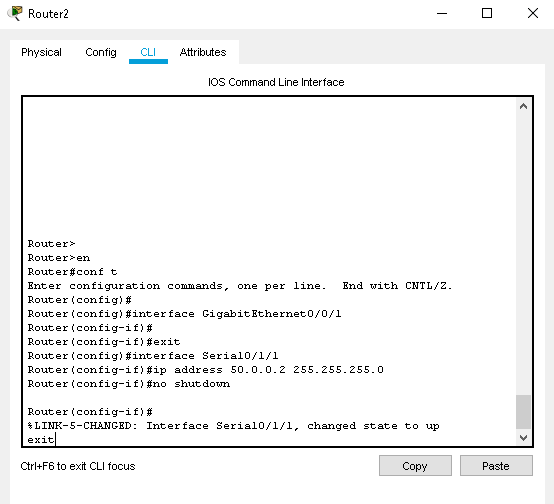


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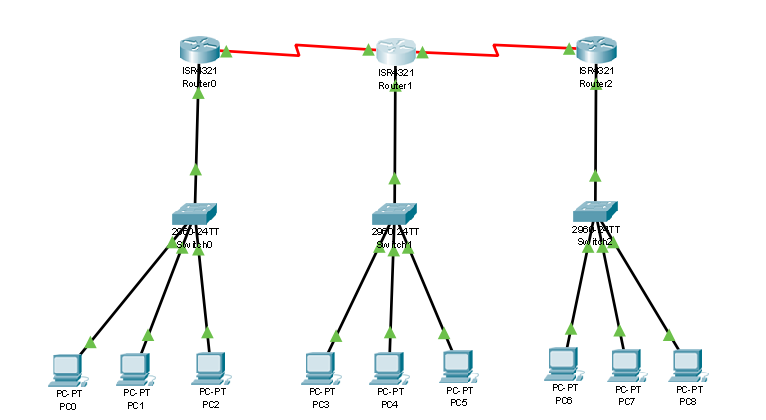
 



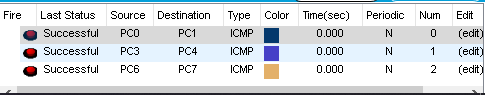
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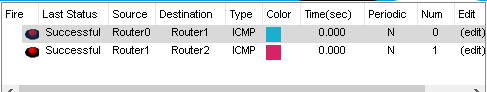


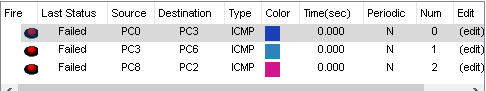
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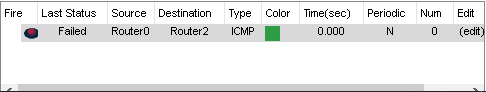


1. Note how intra-connection packet sending succeeds and inter-connection fails:

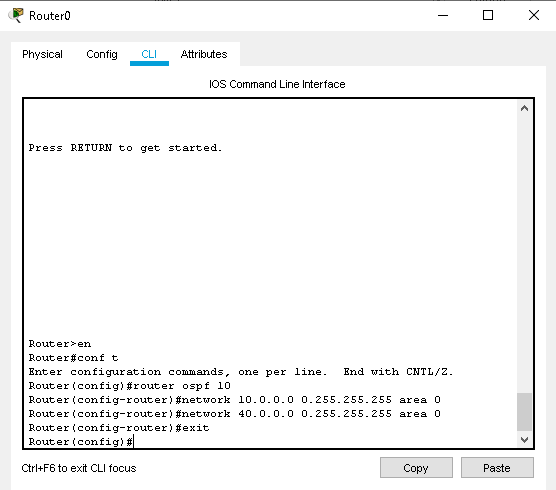




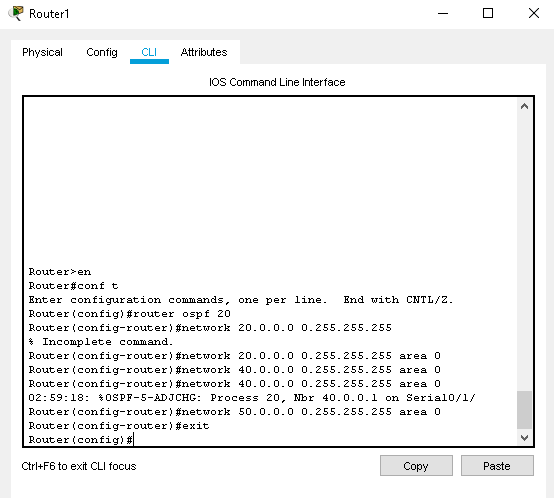




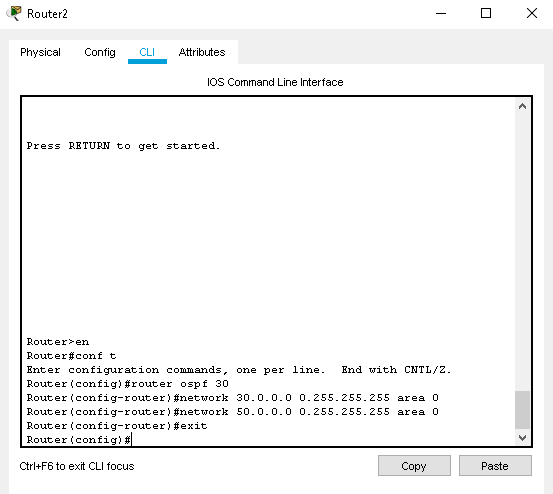
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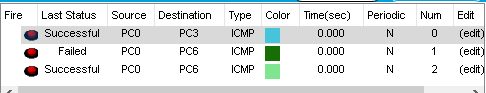
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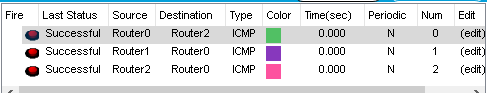


1. Configure OSPF Routing in Router 2 as follows;



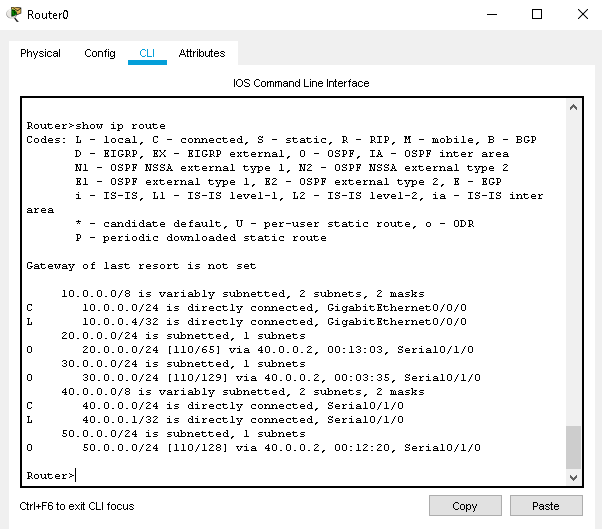
1. After successful OSPF configuration, send packets over the inter-connected network :

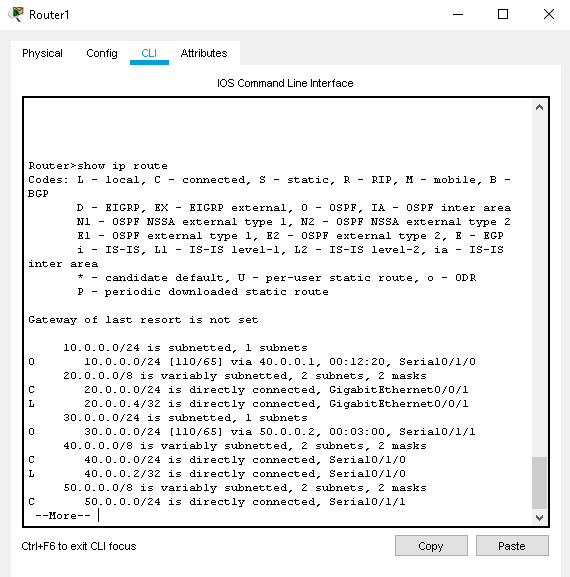




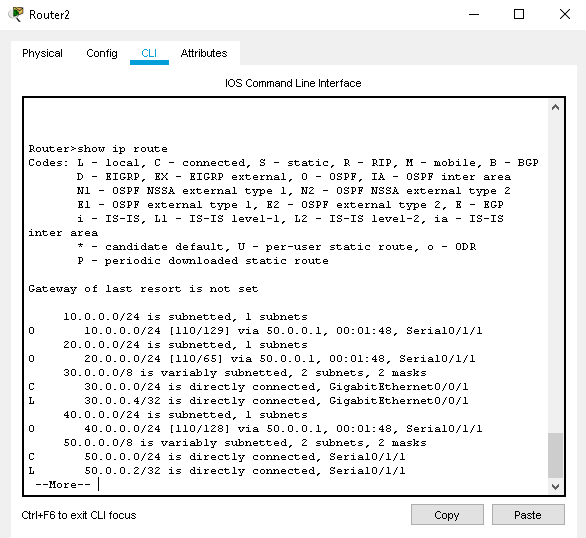
1. Finally, in every Router’s CLI, type ‘show ip route’ to get the connection details:

ROUTER 0



ROUTER 1 

ROUTER 2



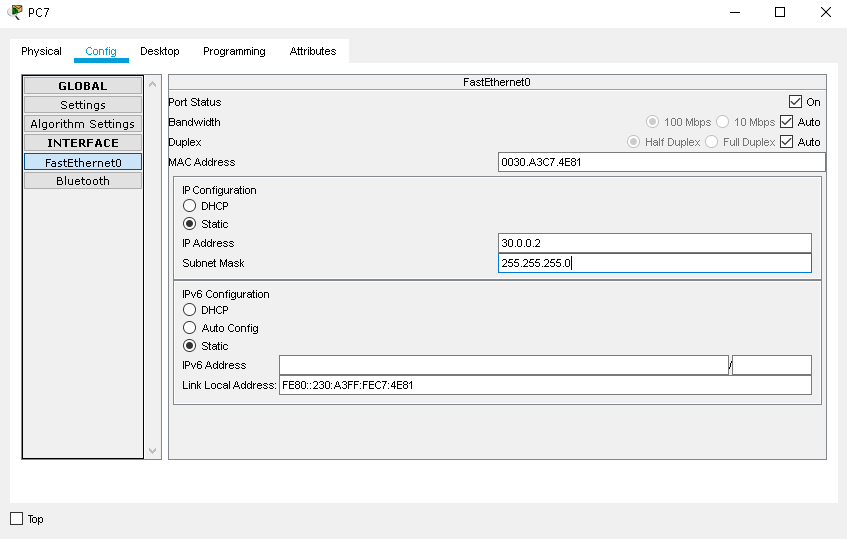
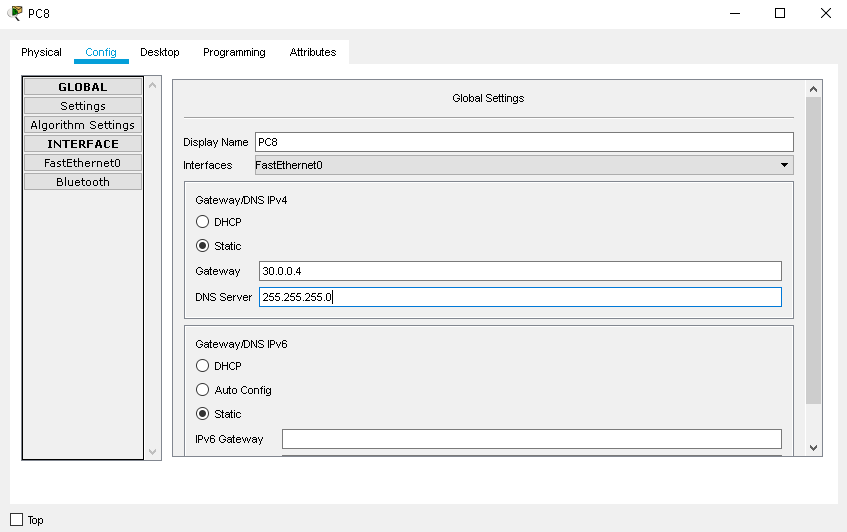
**CONCLUSION:** We have learnt to create a OSPF with three routers associated with three PC as shown above.

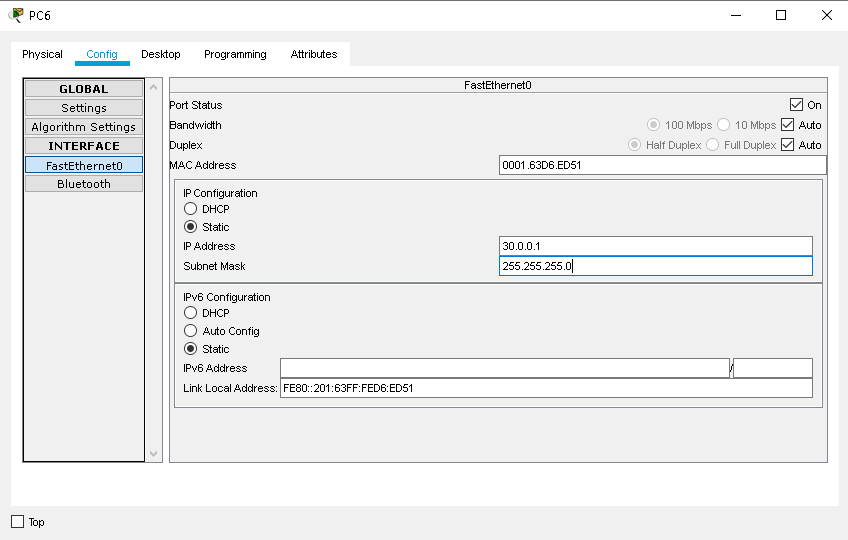
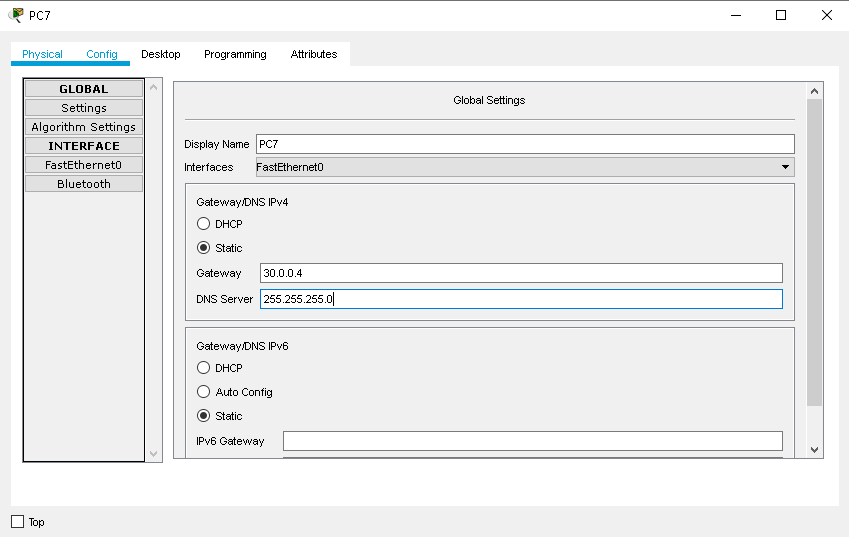
**PRACTICAL NO: 3**

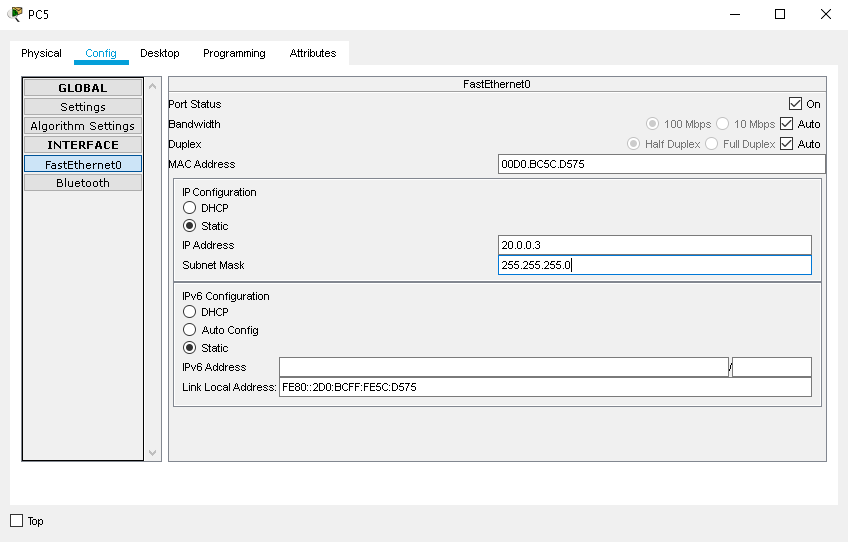
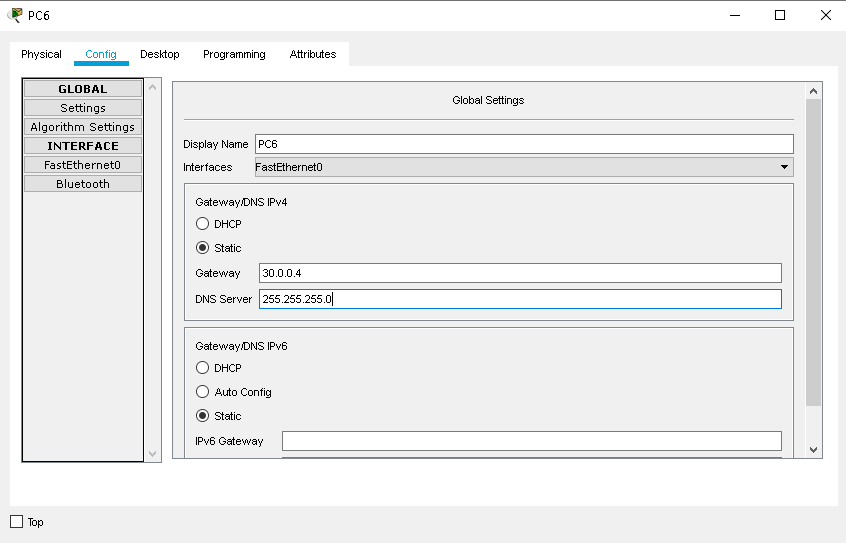
**Aim -** Create a network with three routers with BGP and each router associated network will have minimum three PC. Show connectivity.

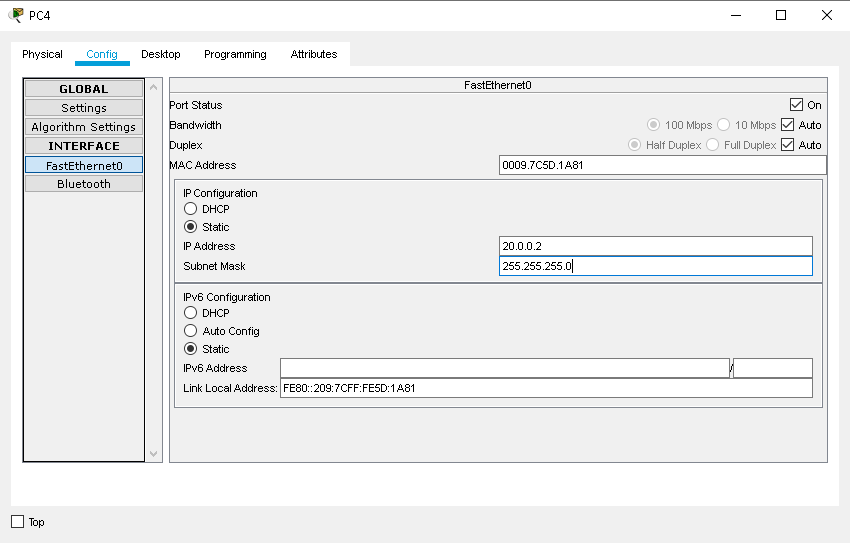
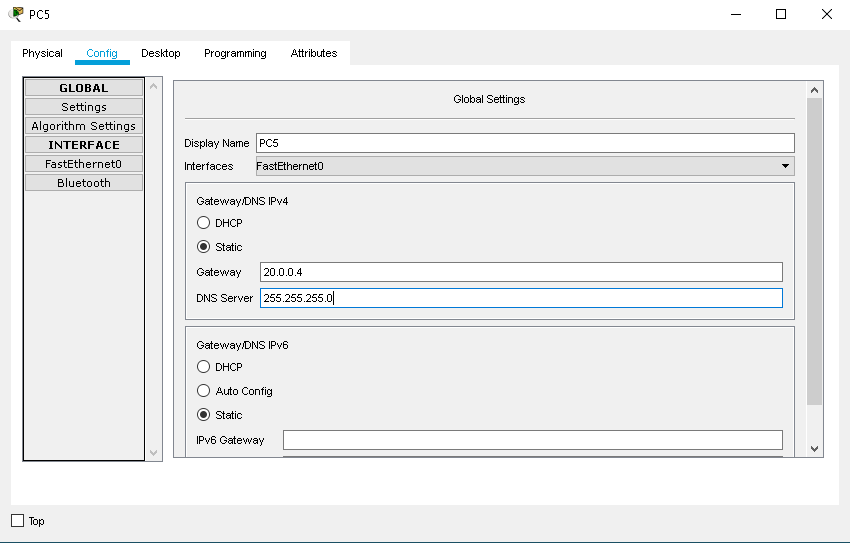
1. Align 9 end-devices as follows:

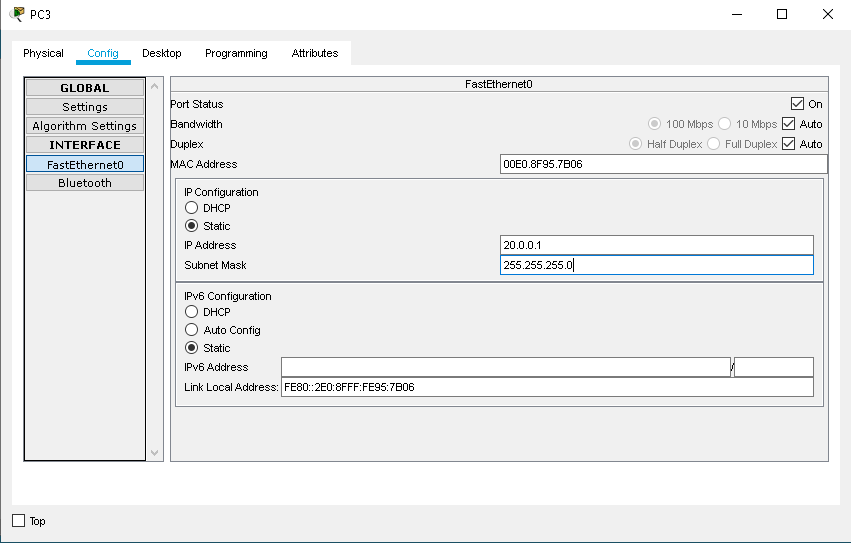
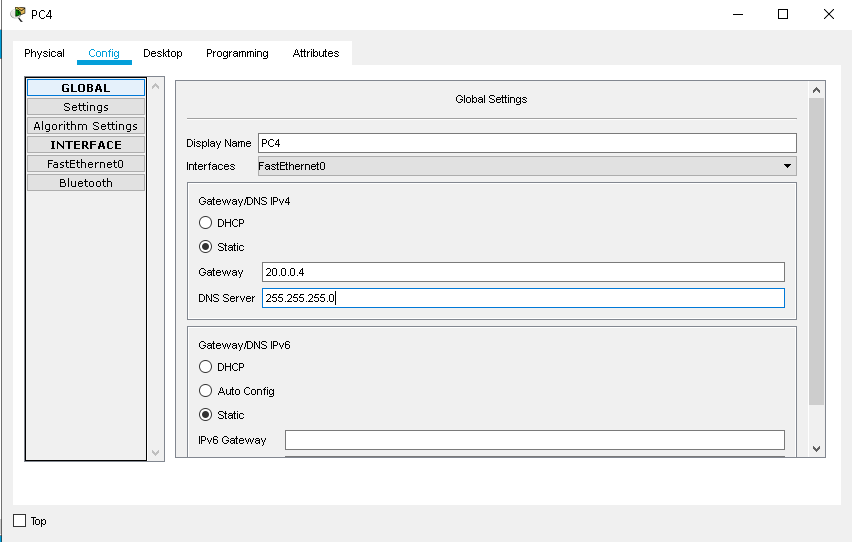


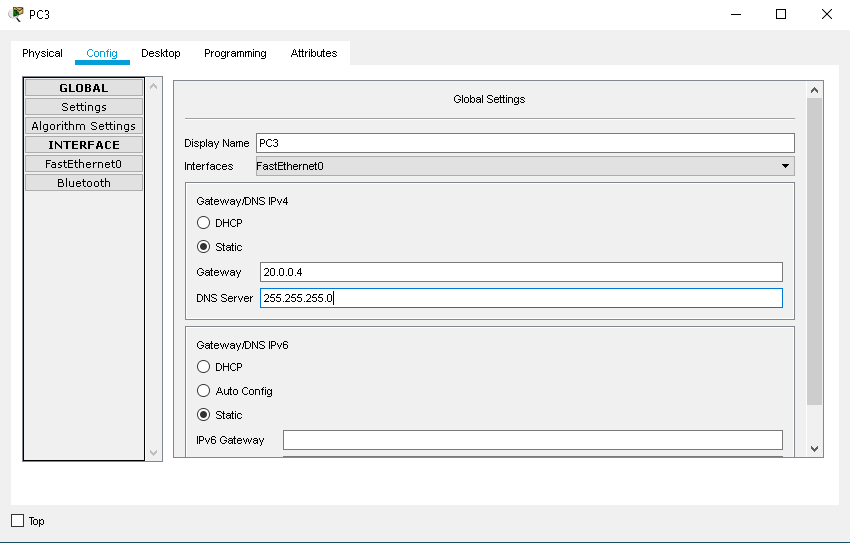
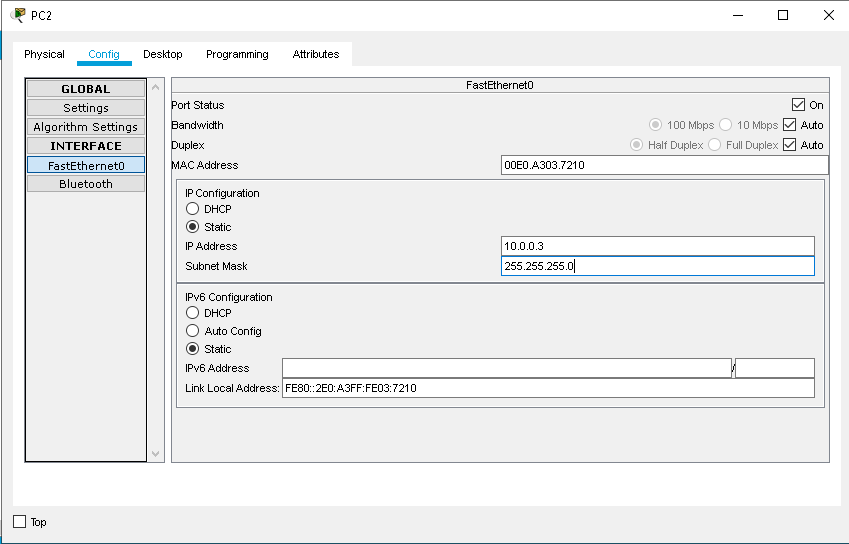
1. Set the DNS, Gateway and Fast Ethernet connections for all the PCs as follows: 

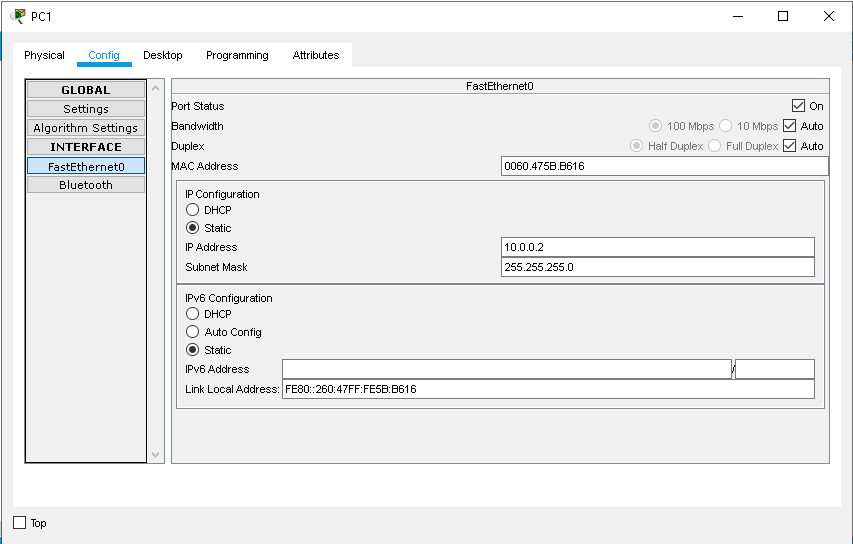
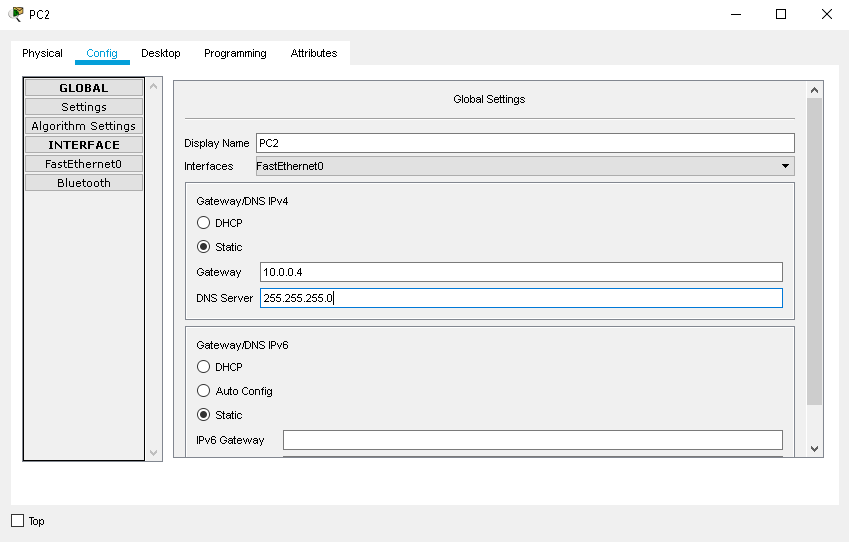


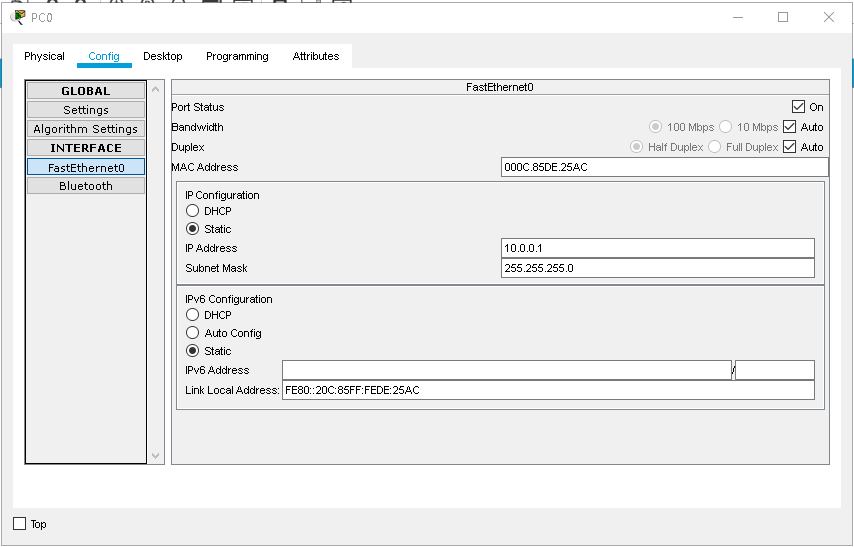
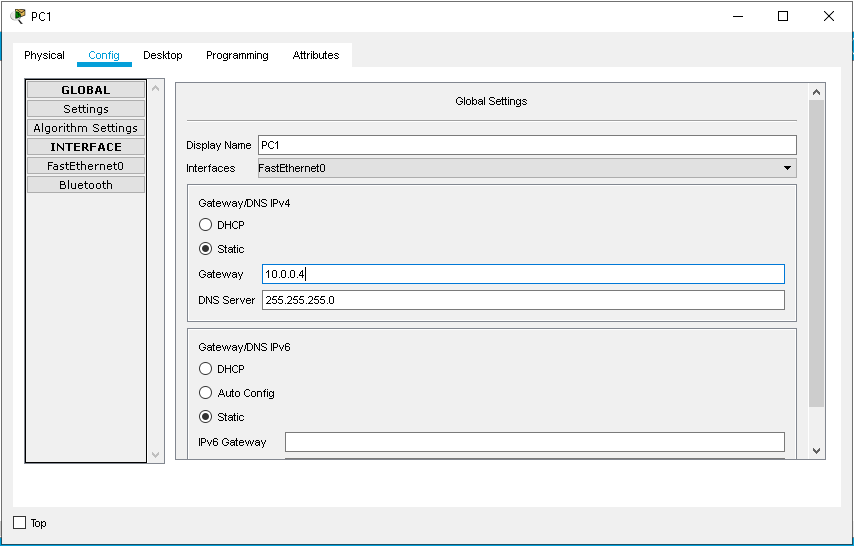


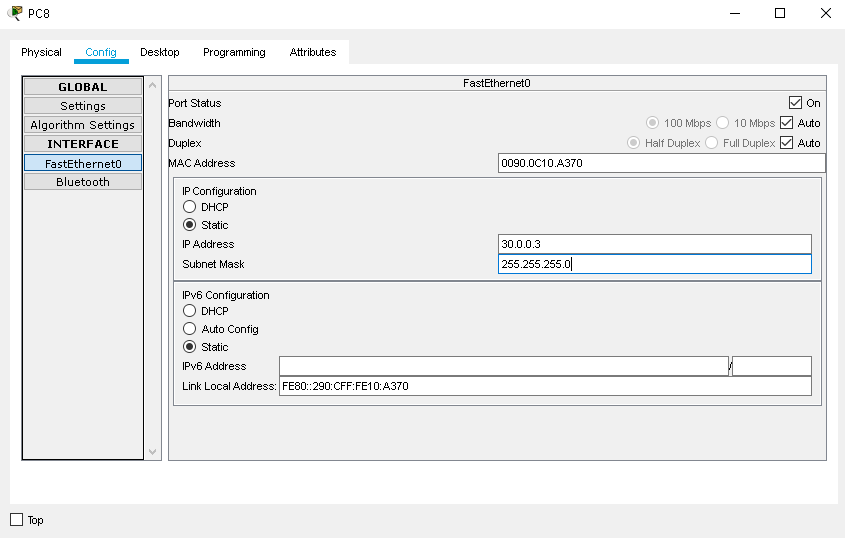
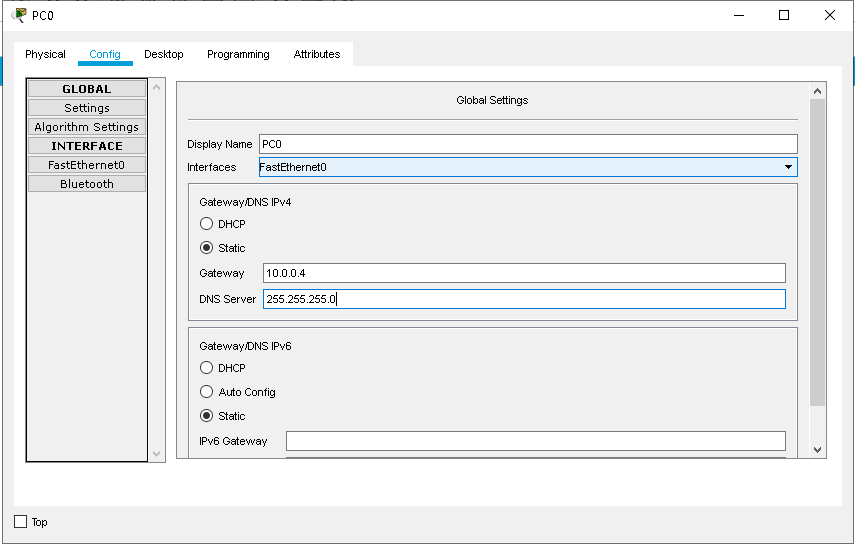


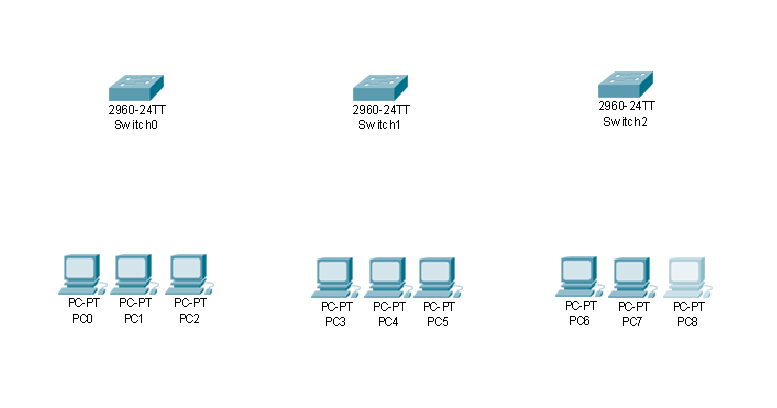


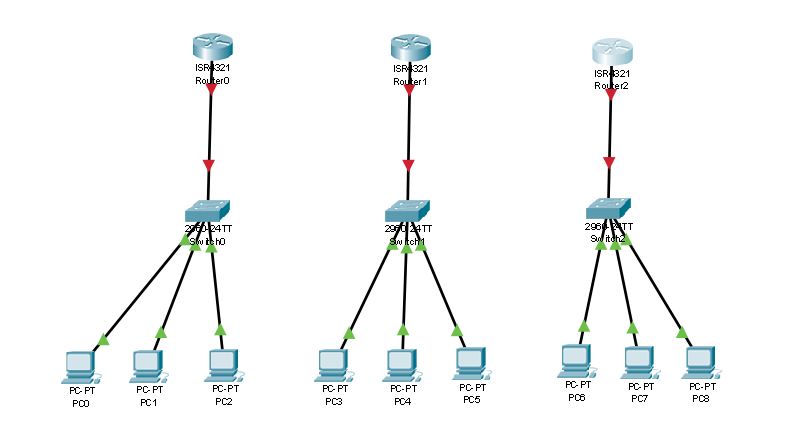




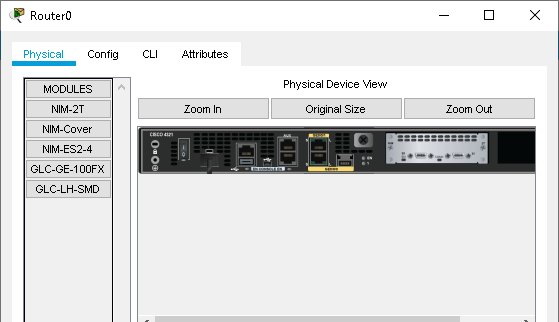




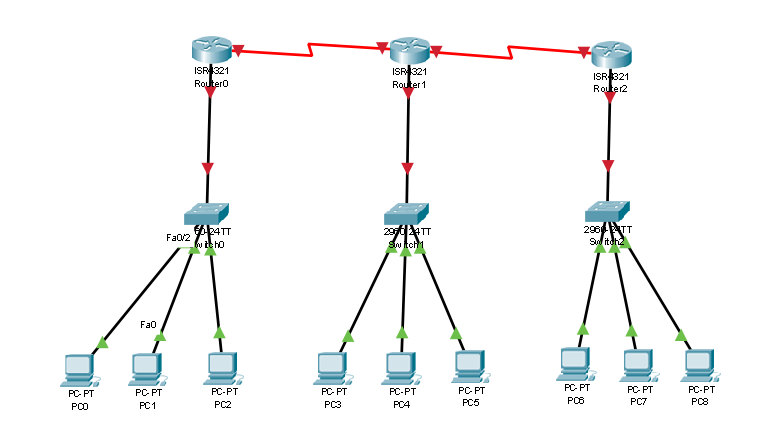
1. Add 3 Switches as follows:
2. Add 3 Routers and connect all the components using Fast Ethernet connection as follows:



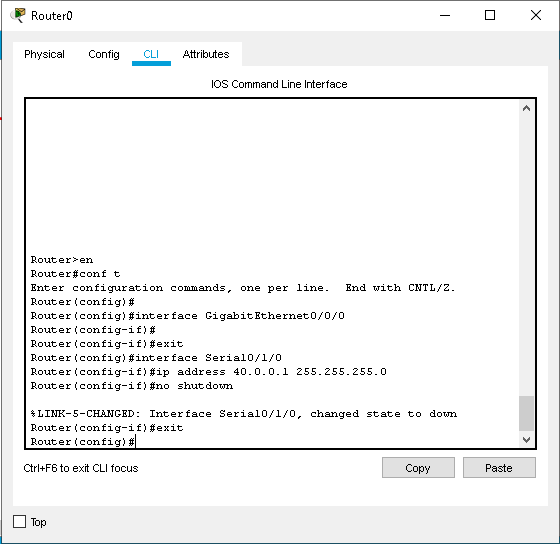
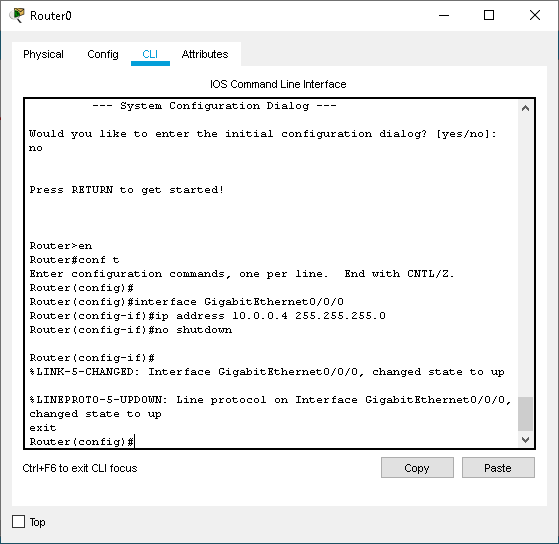
1. Power off each of the Routers and add the NIM-2T Module to all the Routers as follows:



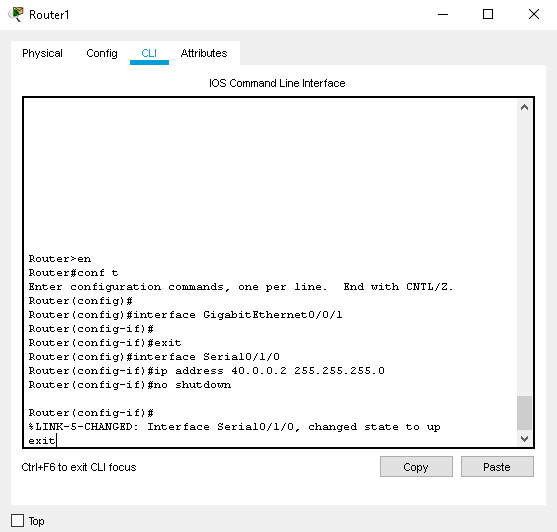
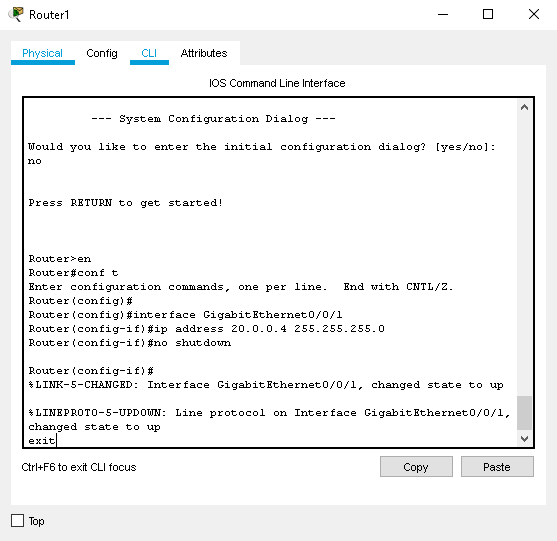
1. Connect the Routers using Serial DTE wires as shown:

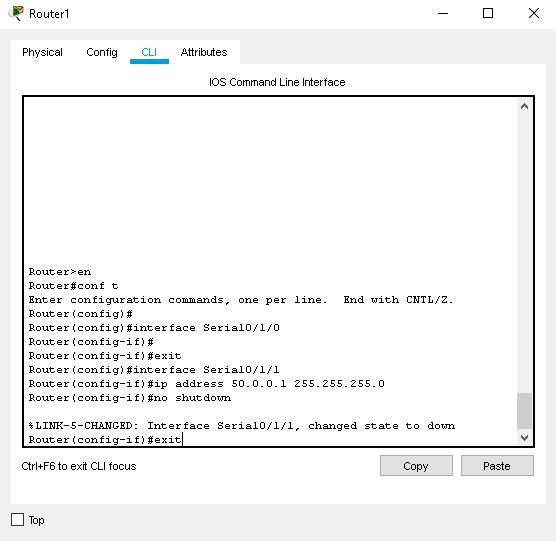


1. Configure Router 0 using the Command Line Interface as follows:

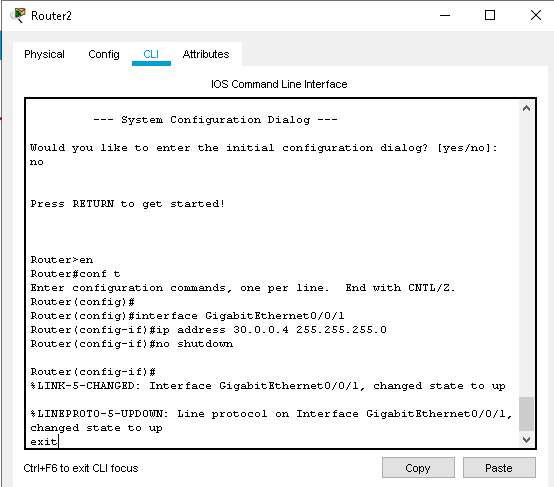
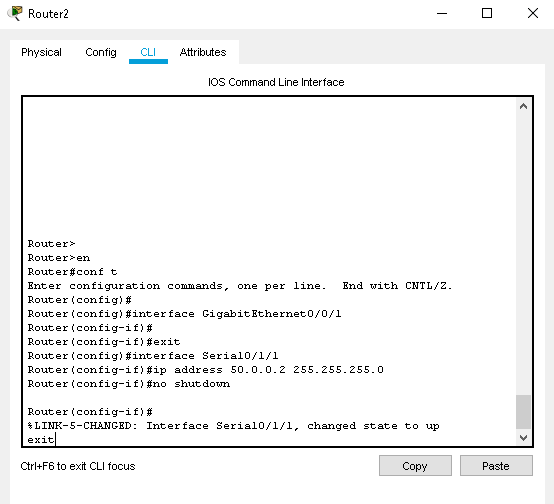


1. Configure Router 1 using the Command Line Interface as follows:

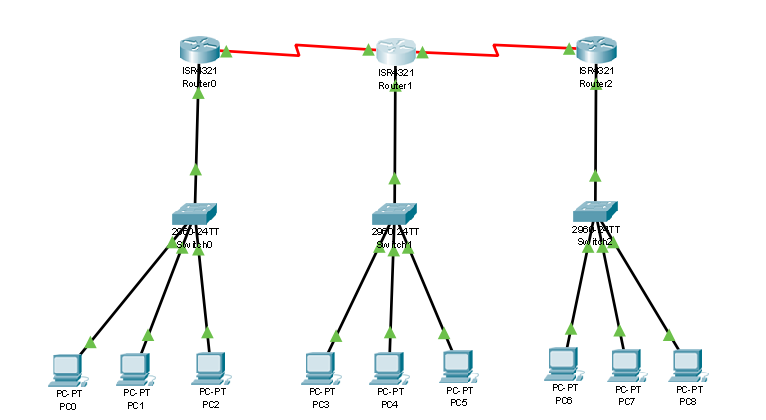




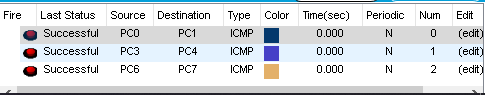
1. Configure Router 2 using the Command Line Interface as follows:

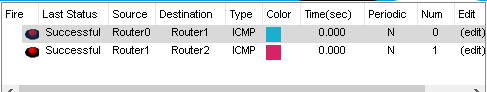


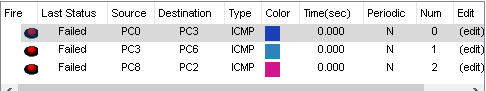
1. The Final connection will look as shown:

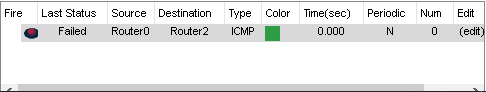


1. Note how intra-connection packet sending succeeds and inter-connection fails:

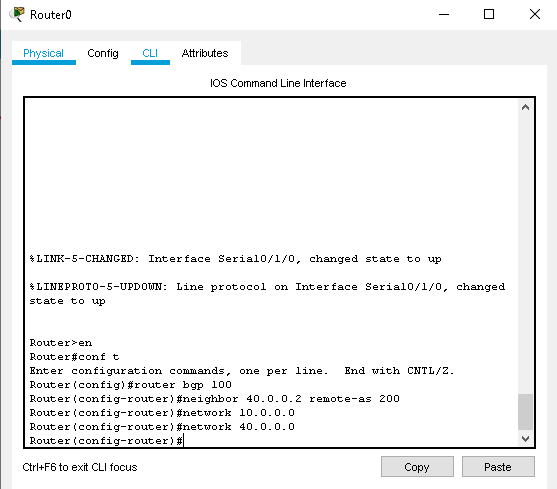




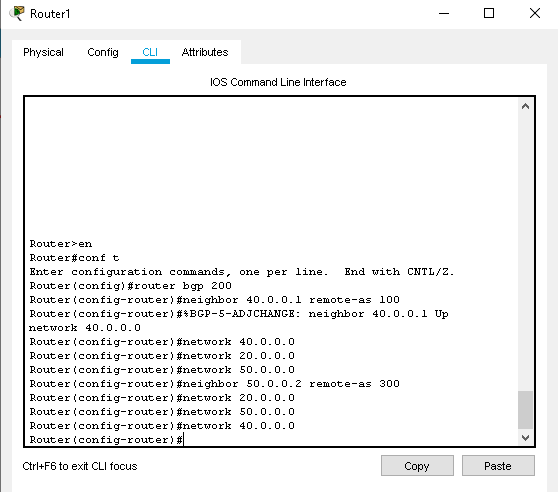




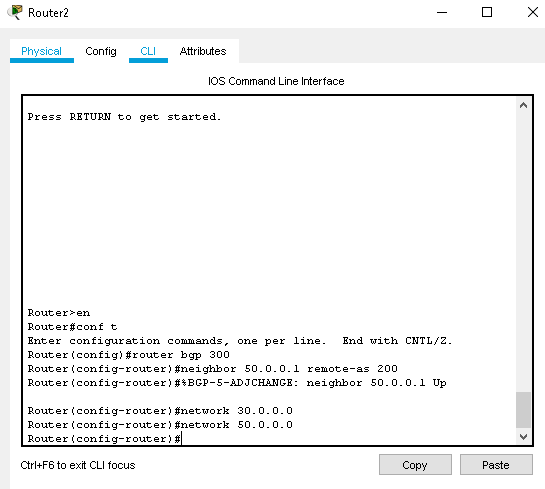
1. Configure BGP Routing in Router 0 as follows:



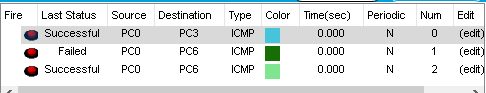
1. Configure BGP Routing in Router 1 as follows:

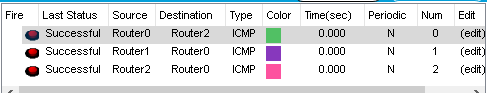


1. Configure BGP Routing in Router 2 as follows;



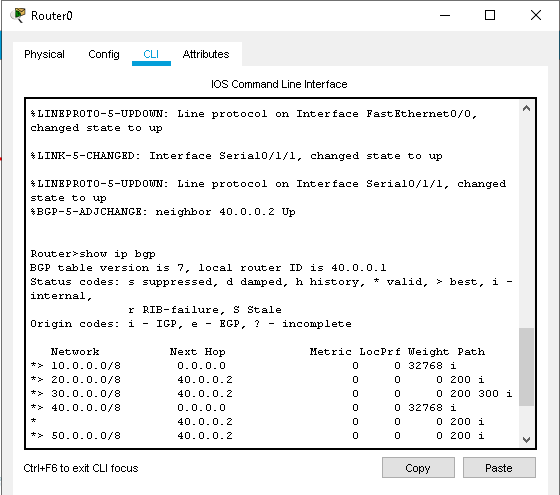
1. After successful BGP configuration, send packets over the inter-connected network :



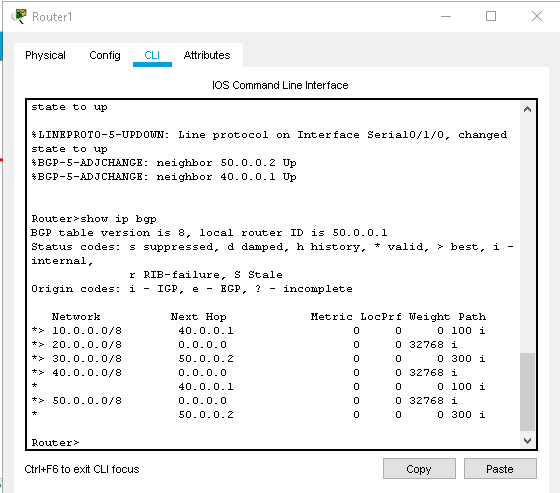


1. Finally, in every Router’s CLI, type ‘show ip route’ to get the connection details:

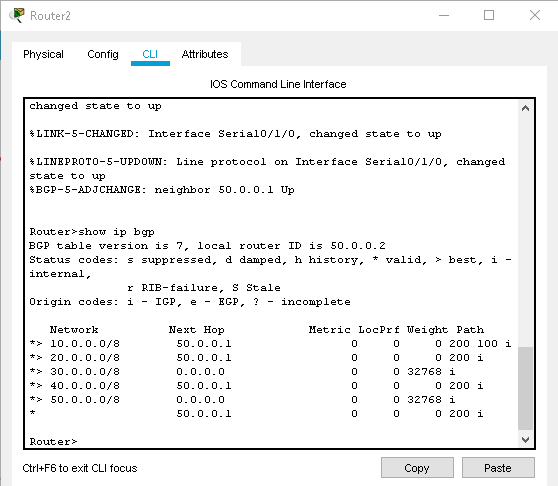
ROUTER 0



ROUTER 1



ROUTER 2



**CONCLUSION:** We have learnt to create a network with BGP with three routers as shown above.