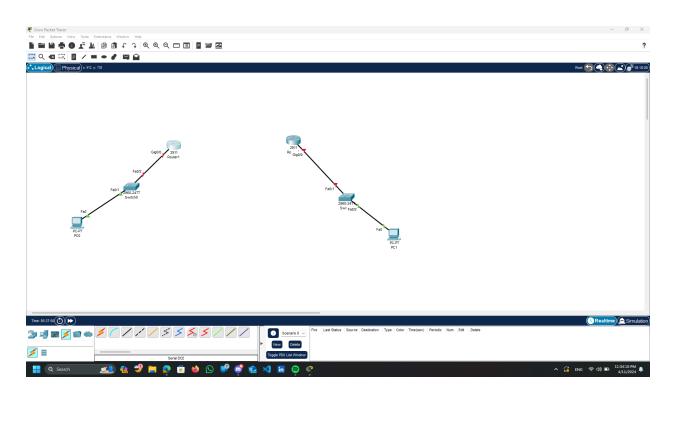
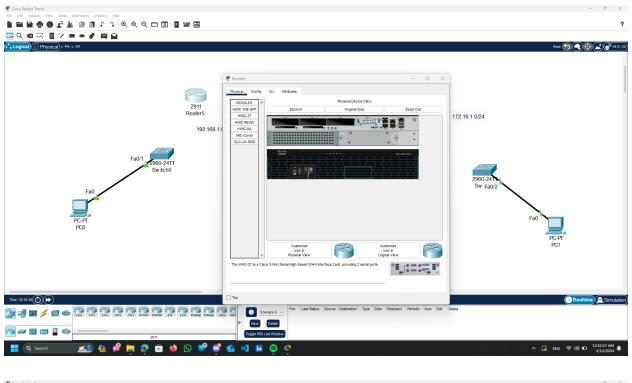
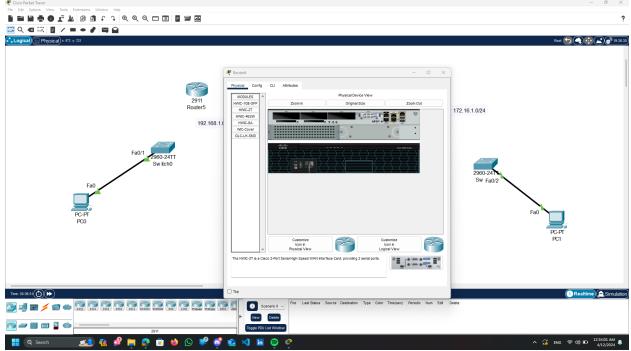


now i built all the topology except the serial DCE connection i need first to add the HWIC-2T in both routers

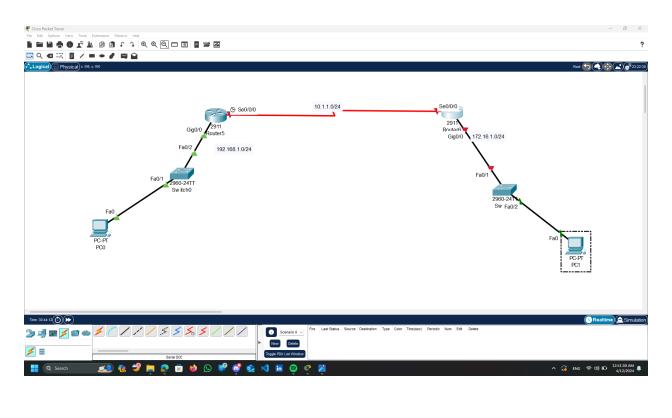


to add the HWIC-2Tyou need to turn of the power add it then turn power back on

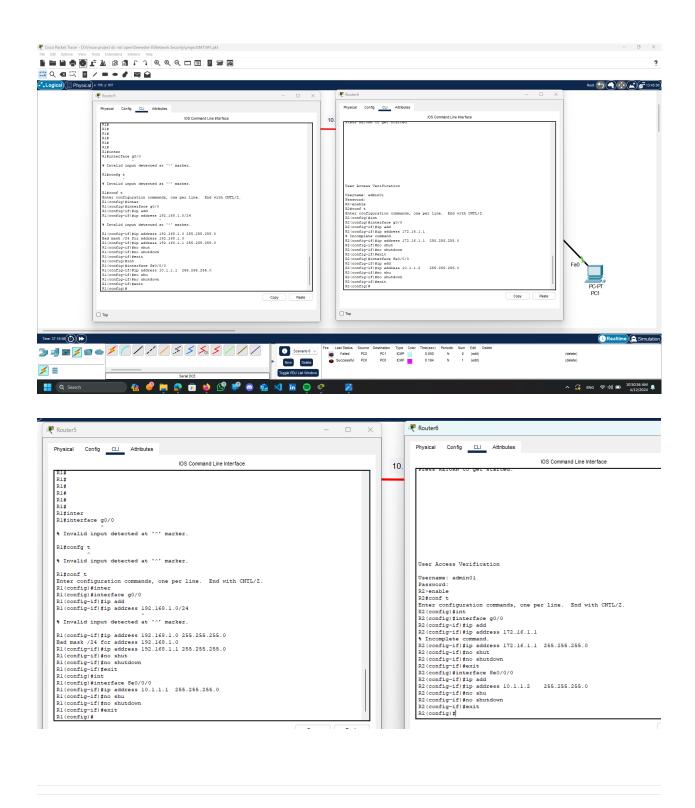




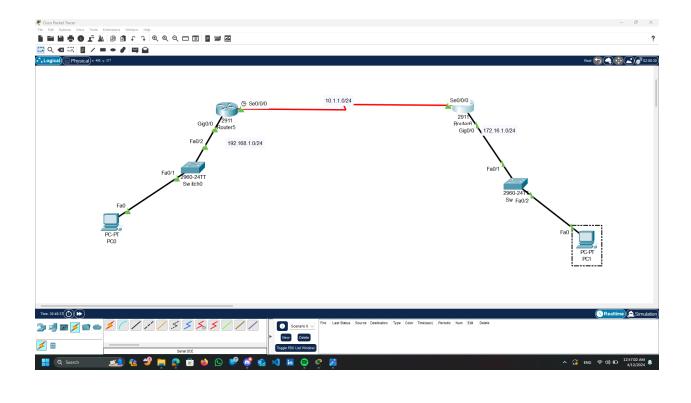
now they are connected then we need to configure the router ports



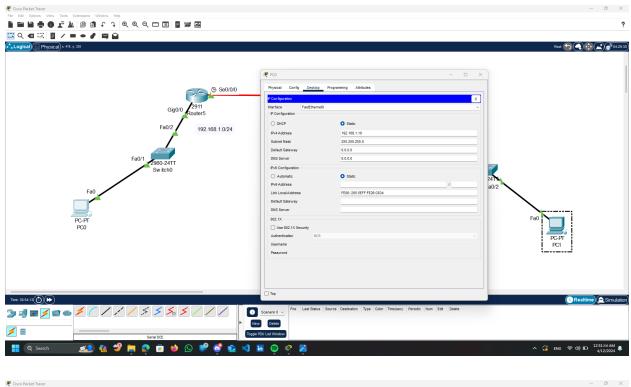
you can see the configuration in the below two pictures enabling IP addresses .

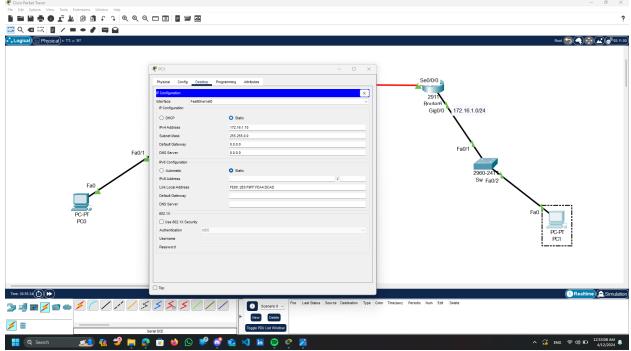


## you can see the network is active now

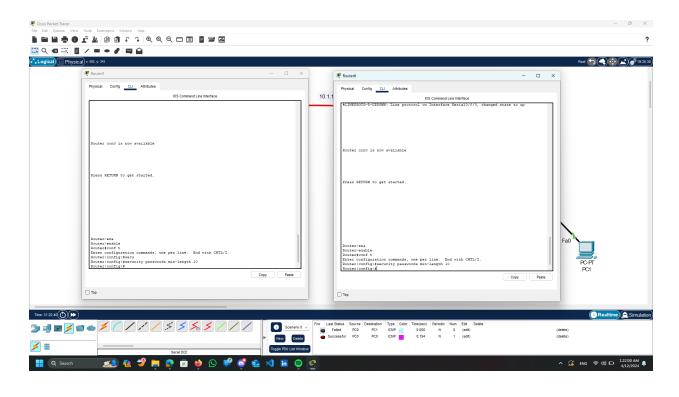


then i set the ip address, subnet mask and default gateway of the computer

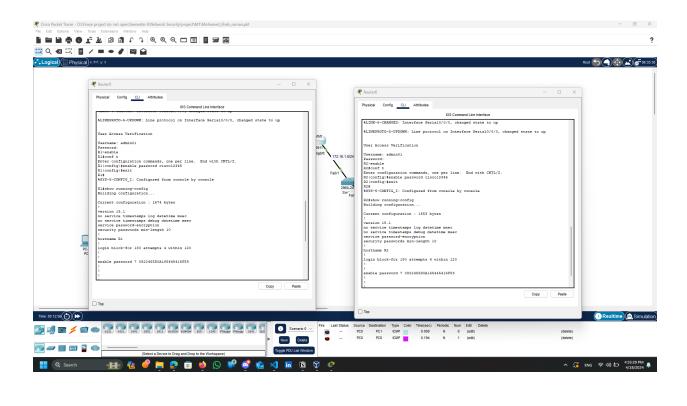




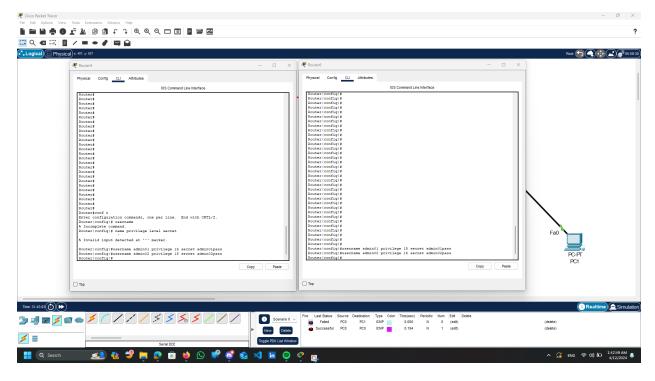
## then i set the minimum password policy to 10 chars on R1 and R2

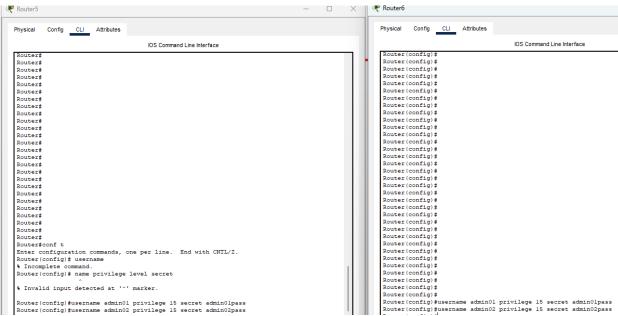


then I Set the privileged EXEC password to "cisco12345" and encrypt it to ensure secure access to privileged mode as you see in the below but the encryption step i have done it in forward photo but you can see it the password is encrypted in the below picture



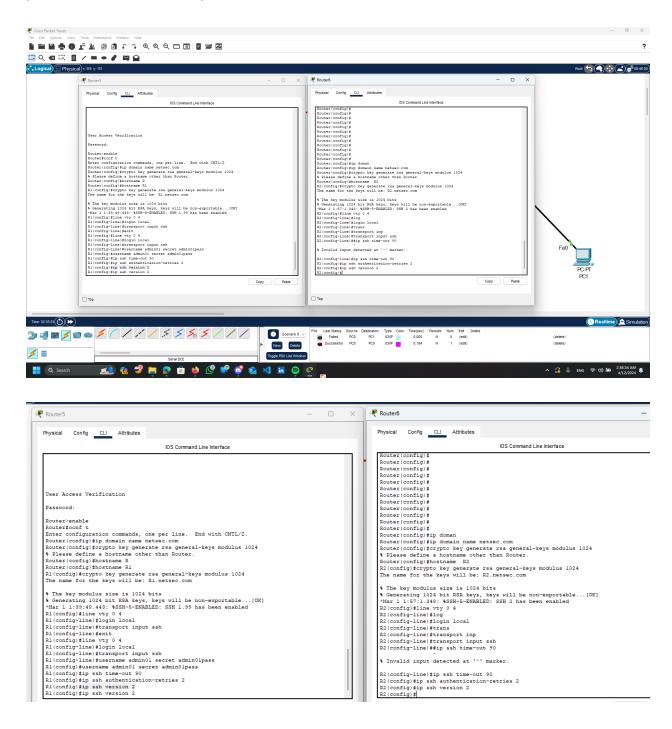
then I added the 2 Users in Local Database on R1 and R2 for Administrator Access





then I Configured SSH by Setting the domain name to "netsec.com" and generate RSA keys with a

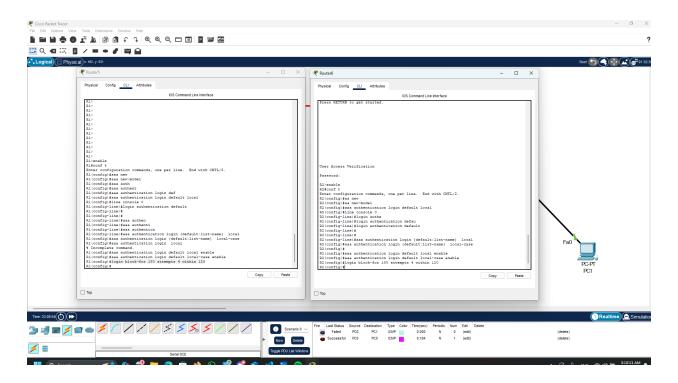
size of 1024 bits on R1 and R2.and Configured SSH timeout to 90 seconds and authentication retries to 2 and set the ssh version to version 2 on R1 and R2 as you see in the below 2 pictures.

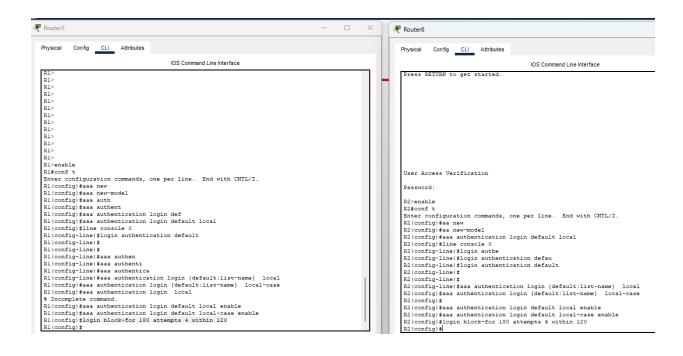


Configure AAA Authentication Settings on R1 and R2 by enabling AAA authentication.

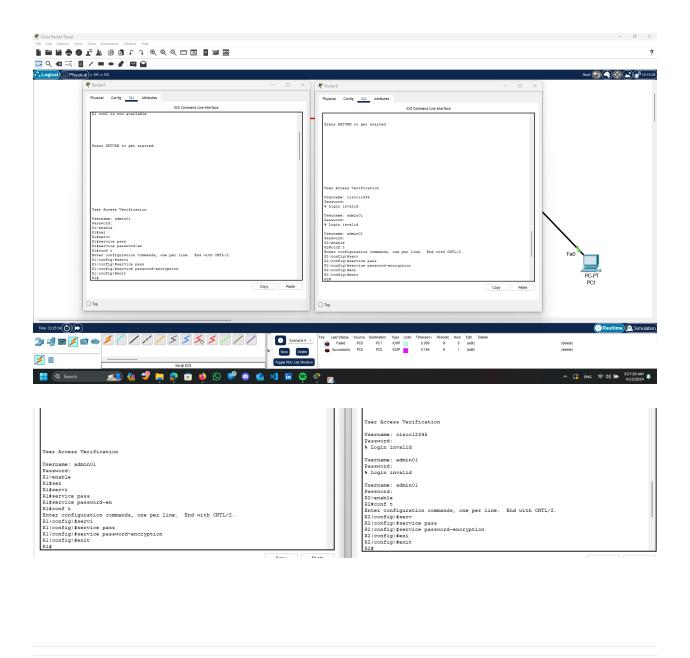
- 1 Use the local database as the default authentication method.
- 2 Enable case-sensitive local username authentication for added security.
- 3 Implement enhanced login settings to block access for three minutes after four failed attempts within a two-minute period.

as you see in the below 2 pictures

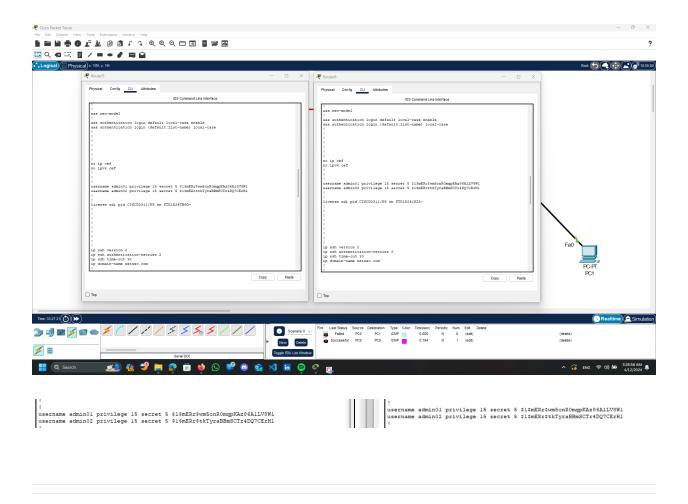




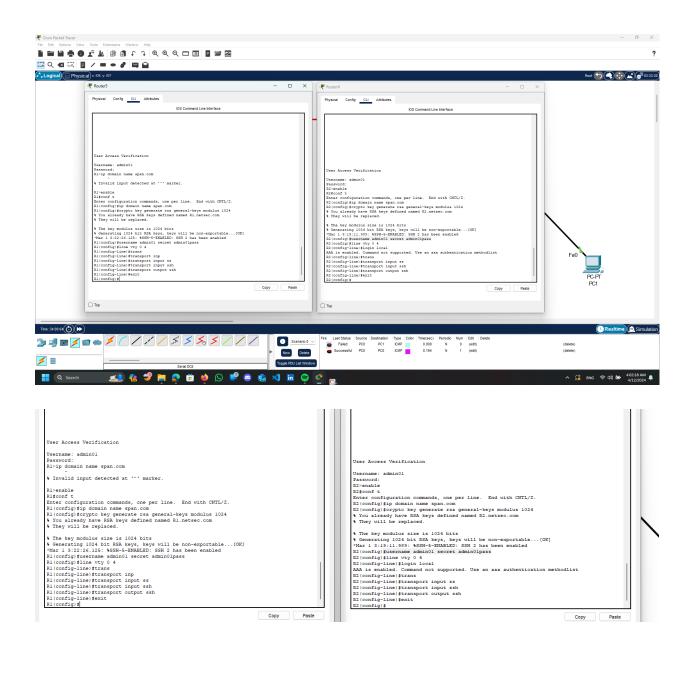
then I encrypted All Passwords on R1 and R2. as you see in the below 2 pictuers



as you see in below 2 pictures passwords are encrypted



then i configured access to routers' VTY lines to allow SSH access only.



the I tested the ssh configuration as you see it finally worked

