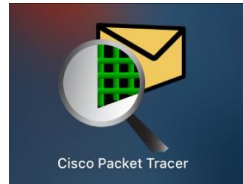


WIPRO ASSIGNMENT - 1

Q. HOW TO CONNECT THE PC'S WHOSE NETWORK ID'S ARE (172.16.0.0),(172.17.0.0),(172.18.0.0),(172.19.0.0),(172.20.0.0) BY USING STATIC ROUTING IN CISCO PACKET TRACER ?

ANSWER :

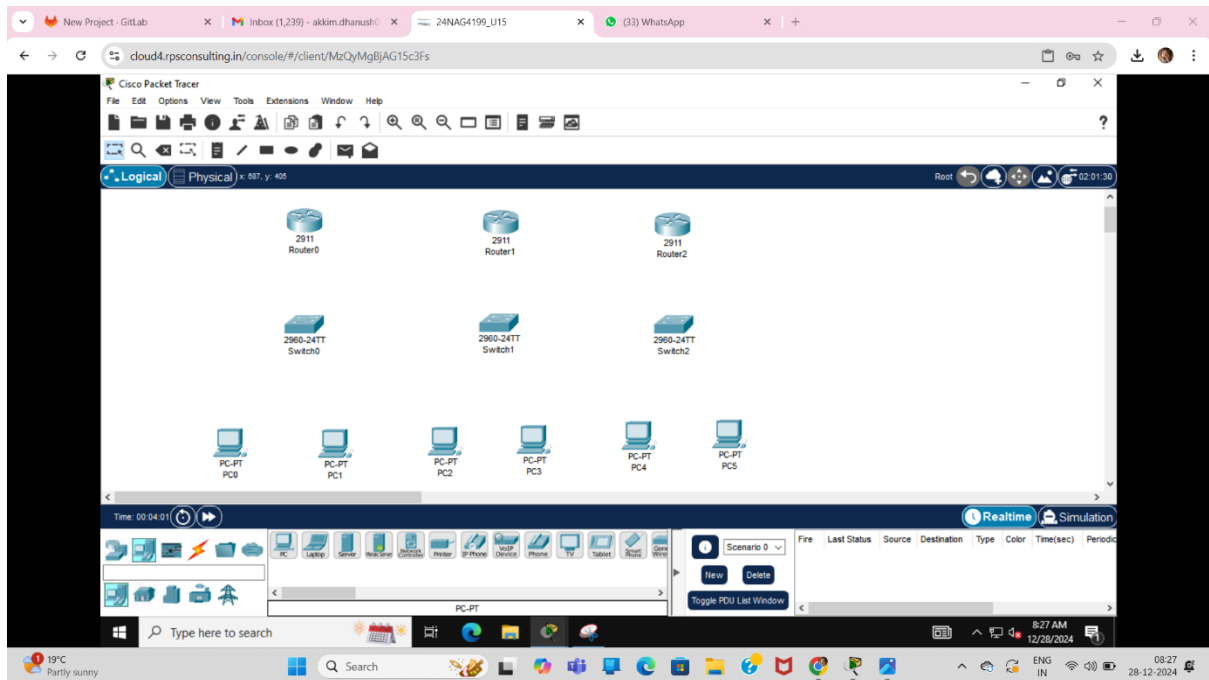
STEP - 1: OPEN THE CISCO PACKET TRACER BY DOUBLE CLICKING THE APP.



STEP -2: SELECT THE PC SYMBOL AND PASTE THE PC'S AS WE REQUIRED, WE TAKE THEM AS PC0,PC1,PC2,PC3,PC4,PC5.

NOW TO CONNECT THE PC'S WE USE THE 2960 SWITCHES OF 3 AS SWITCH 0, SWITCH 1, SWITCH 2.

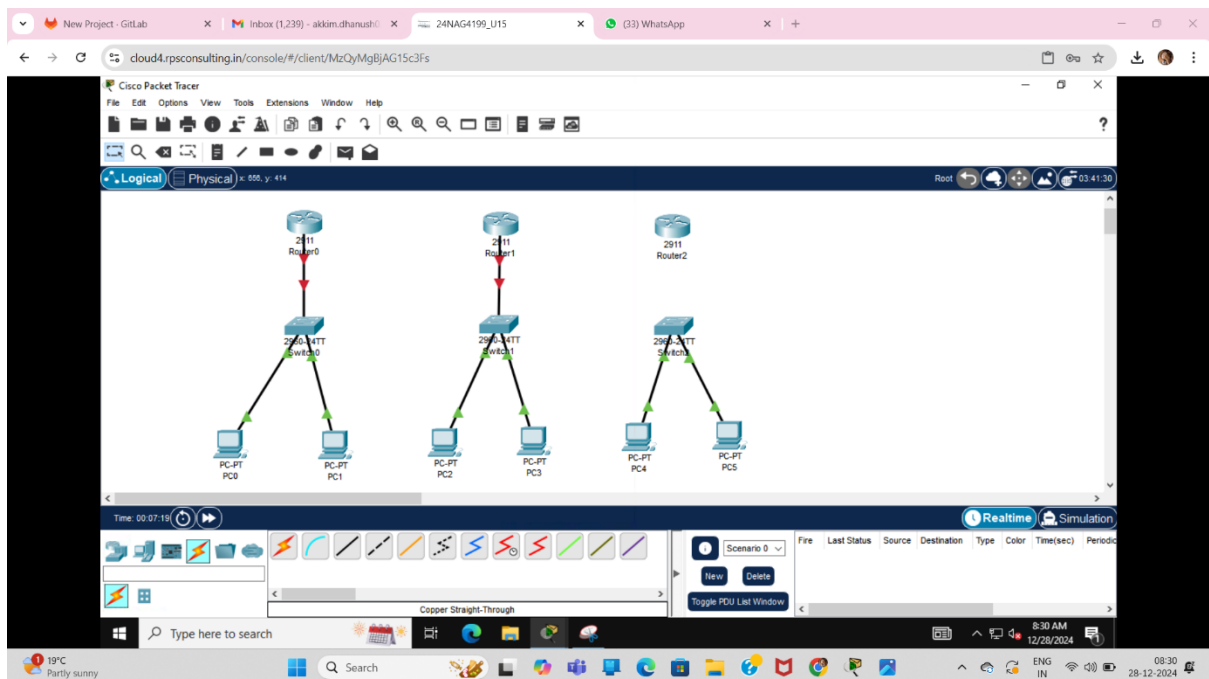
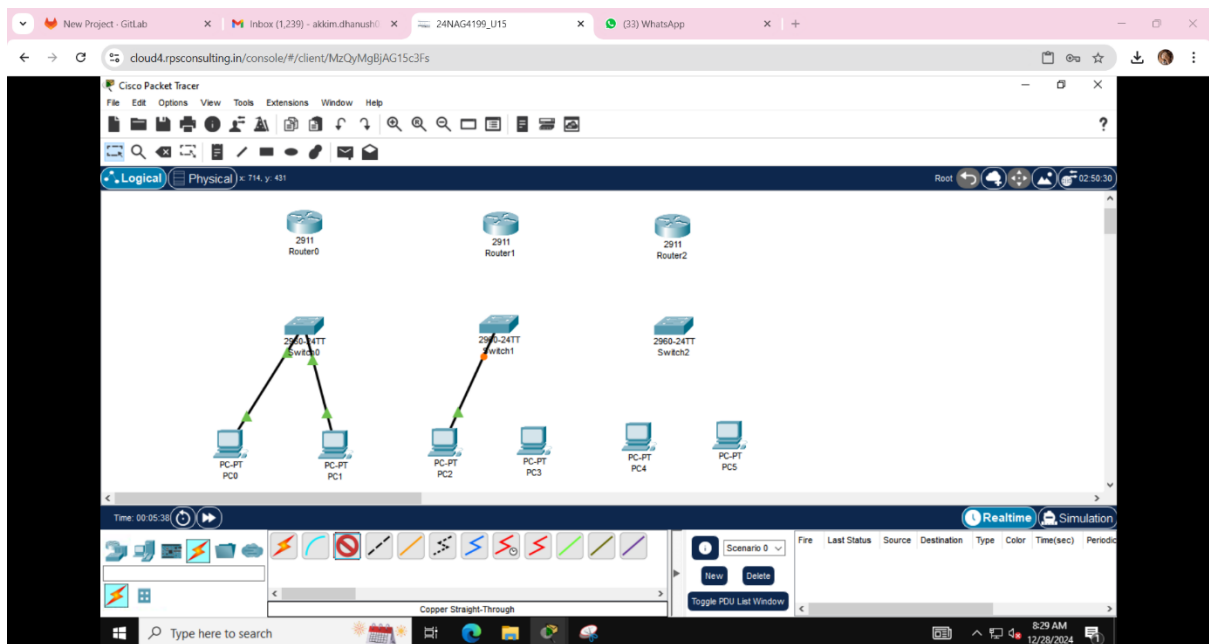
AND WE USE 2911 ROUTERS OF 3 TO CONNECT THE NETWORK BETWEEN THE SWITCHES.



WIPO ASSIGNMENT - 1

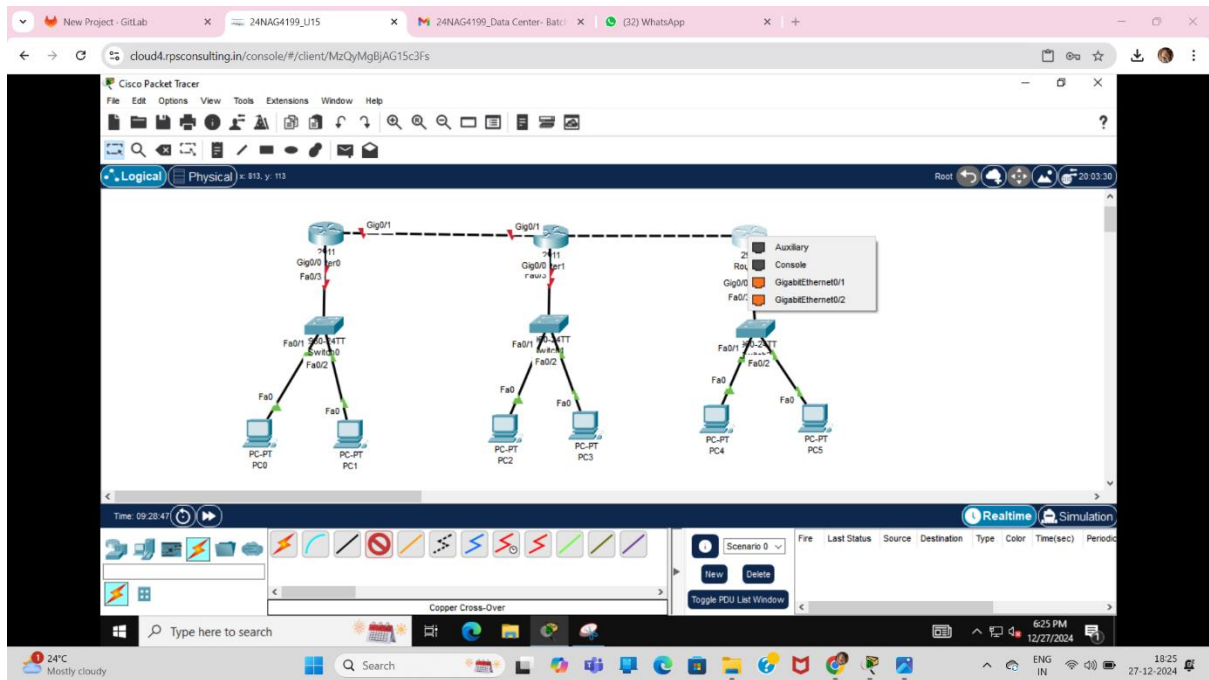
STEP -3: BY CLICKING THE CONNECTION SYMBOL ⚡ , WE USE COPPER STRAIGHT CONNECTION TO CONNECT THE NETWORKS BETWEEN PC'S TO SWITCHES.

NOW, WE CONNECT THE SWITCHES TO THE ROUTERS BY USING THE SAME CONNECTION.

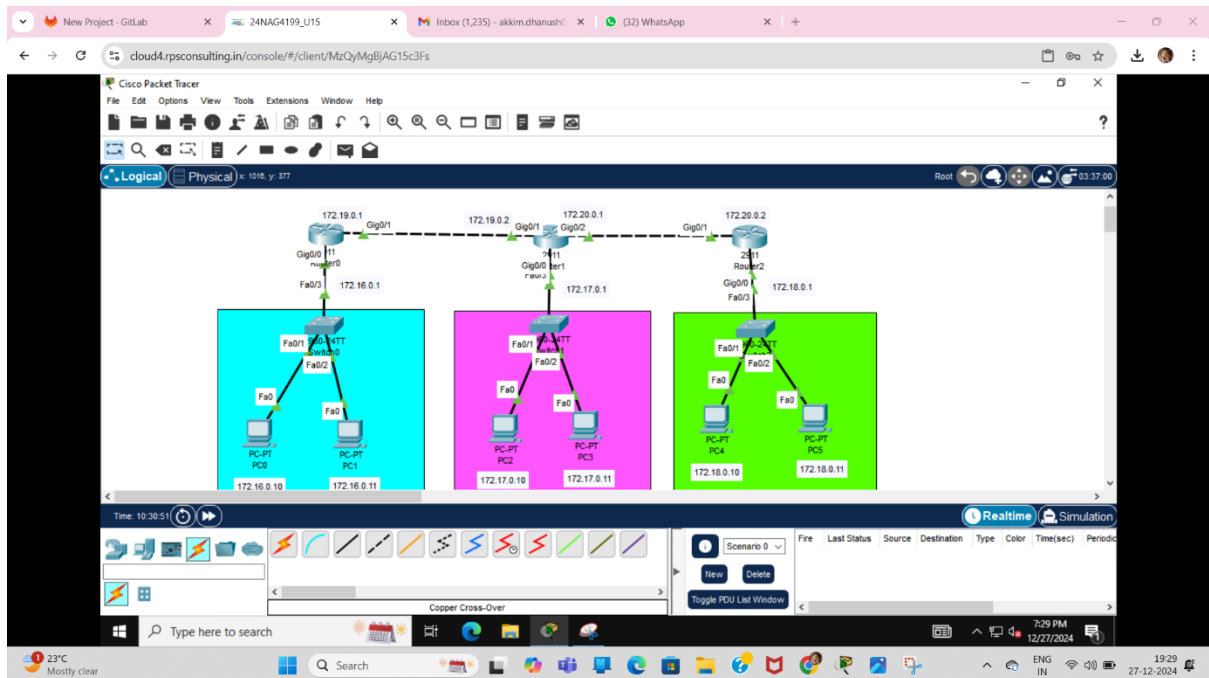


WIPO ASSIGNMENT - 1

STEP -4: NOW, WE CONNECT THE ROUTERS BY USING THE COPPER CROSS OVER.



WE CAN EDIT THE PCS , SWITCHES AND ROUTERS WITH THE SHAPES AND COLOURS AS WE WANT. SO, WE CAN EASILY IDENTIFY THE SEPARATE NETWORKS AS SHOWN IN THE BELOW PICTURE.



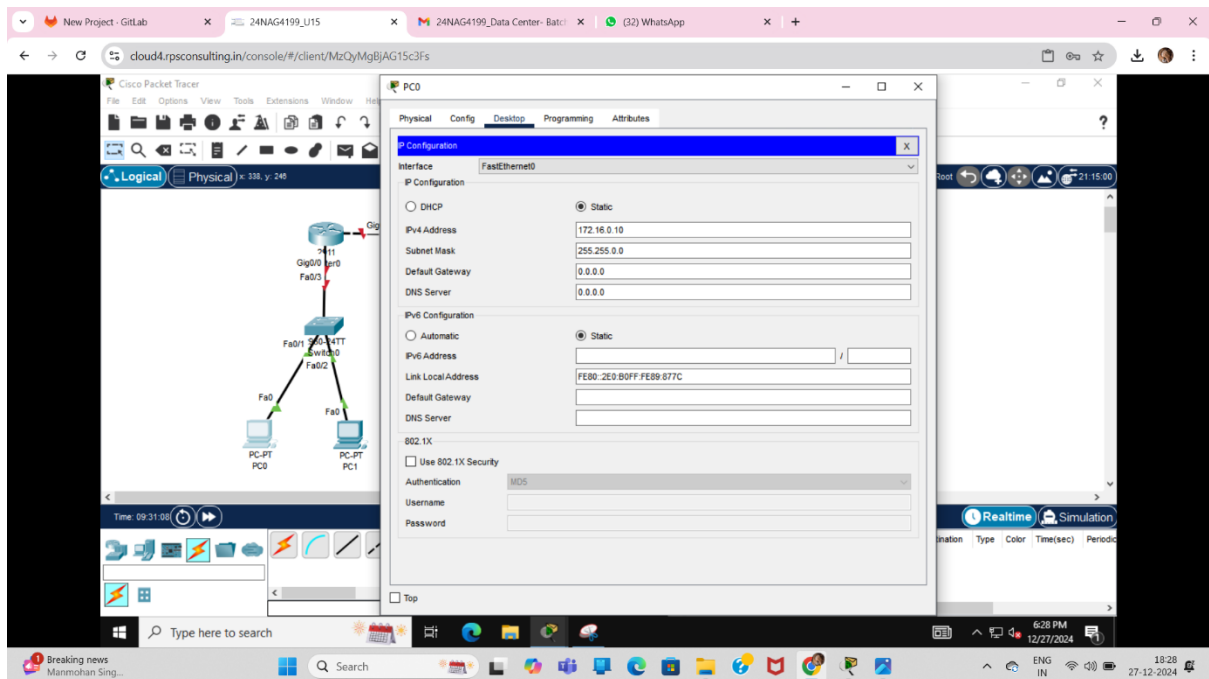
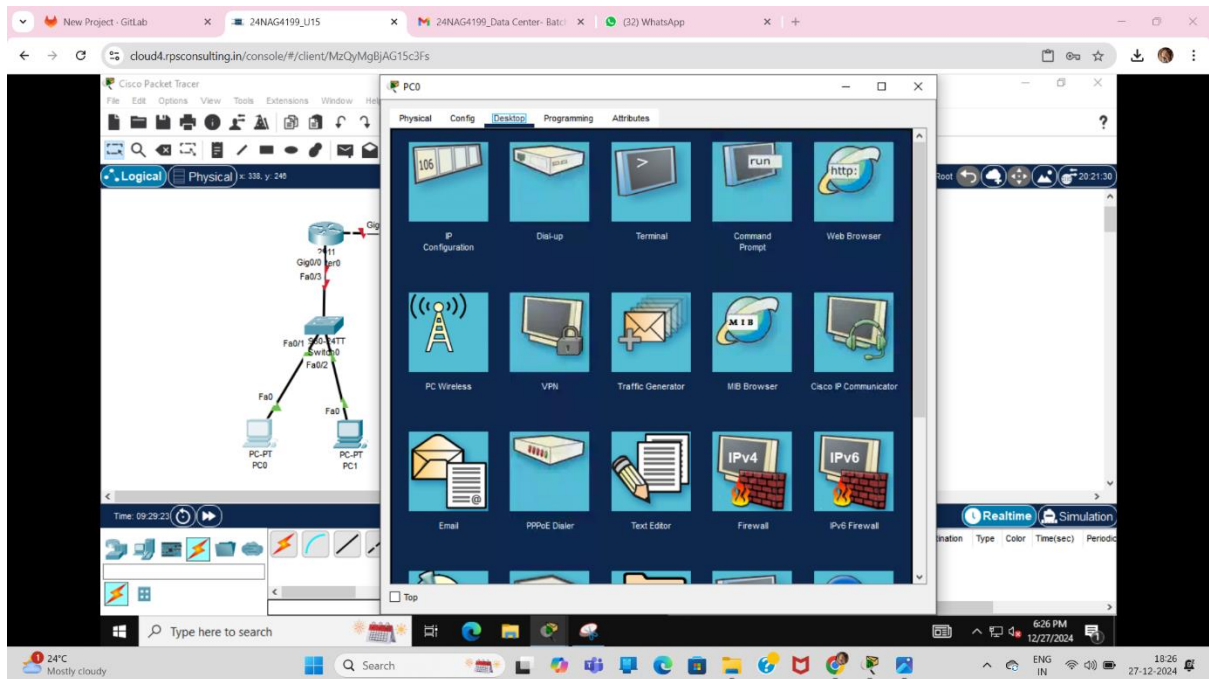
WIPO ASSIGNMENT - 1

STEP -5: WE HAVE TO GIVE THE IP ADDRESSES TO THE EACH PC.

DOUBLE CLICK ON PC'S, SELECT THE DESKTOP OPTION AND GIVE THE IP ADDRESS AND CLICK ON TAB, IT AUTOMATICALLY TAKES THE SUBNET MASK OF THE NETWORK.

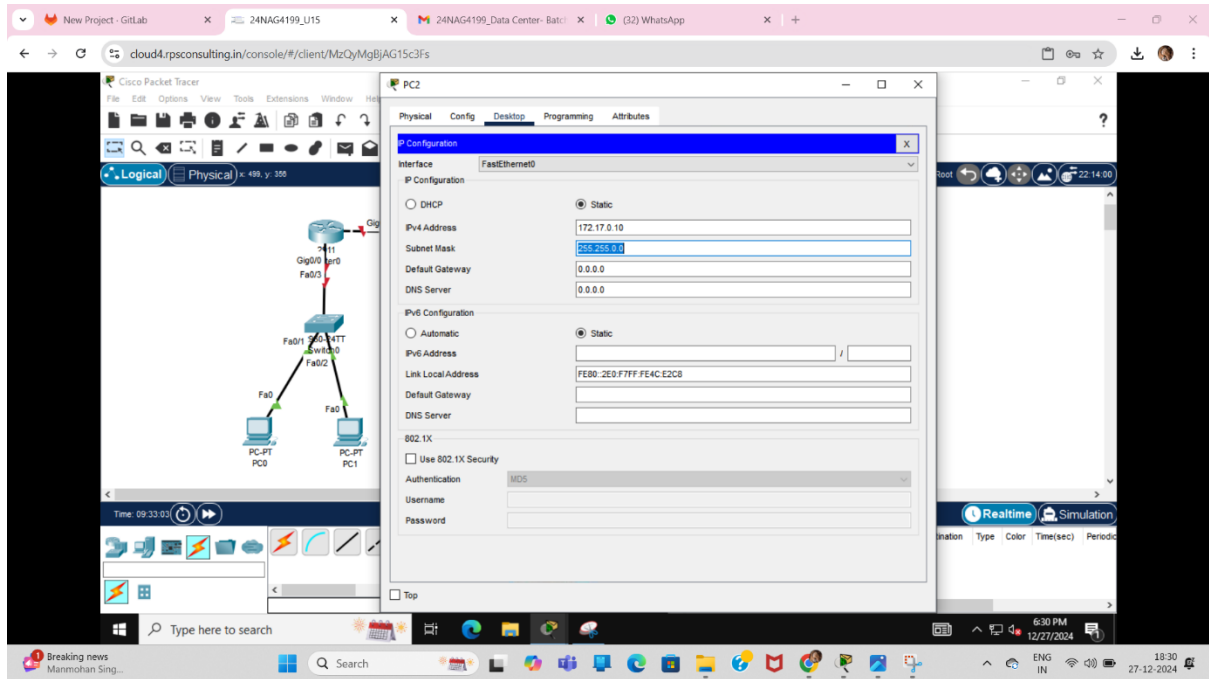
SIMILARLY, DO THE SAME PROCESS AS OTHER PC'S.

PC0 – 172.16.0.10, PC1 – 172.16.0.11,

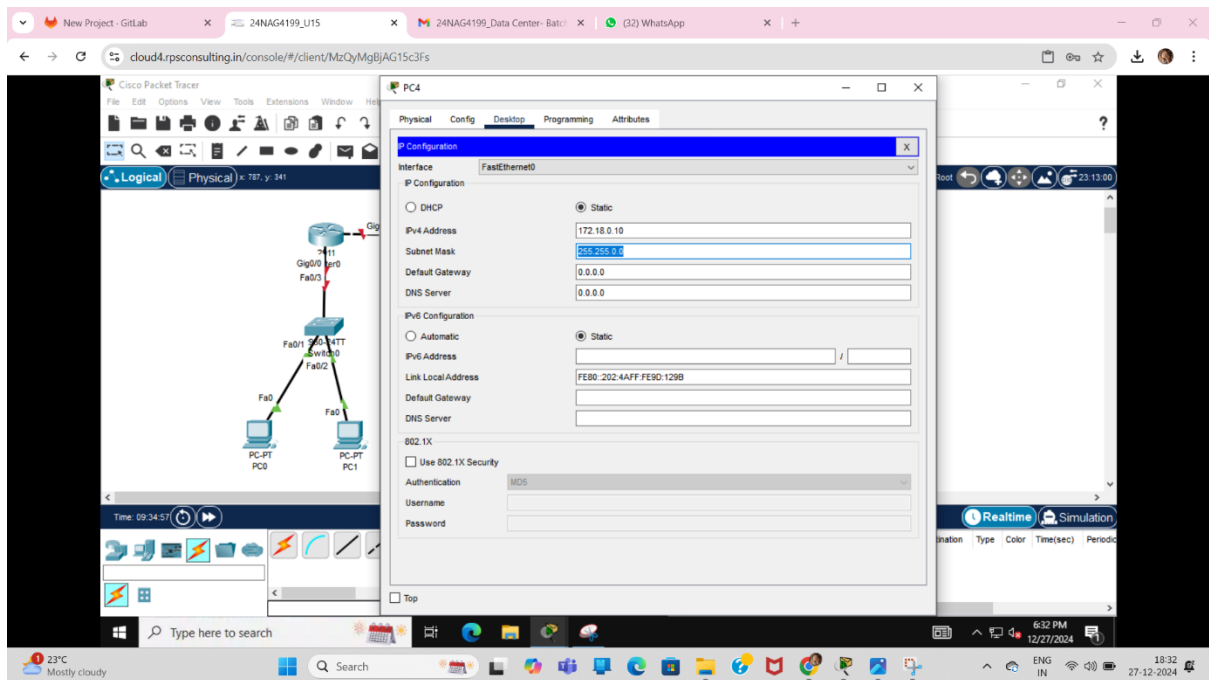


PC2 – 172.17.0.10, PC3 – 172.17.0.11 AS SHOWN BELOW,

WIPO ASSIGNMENT - 1

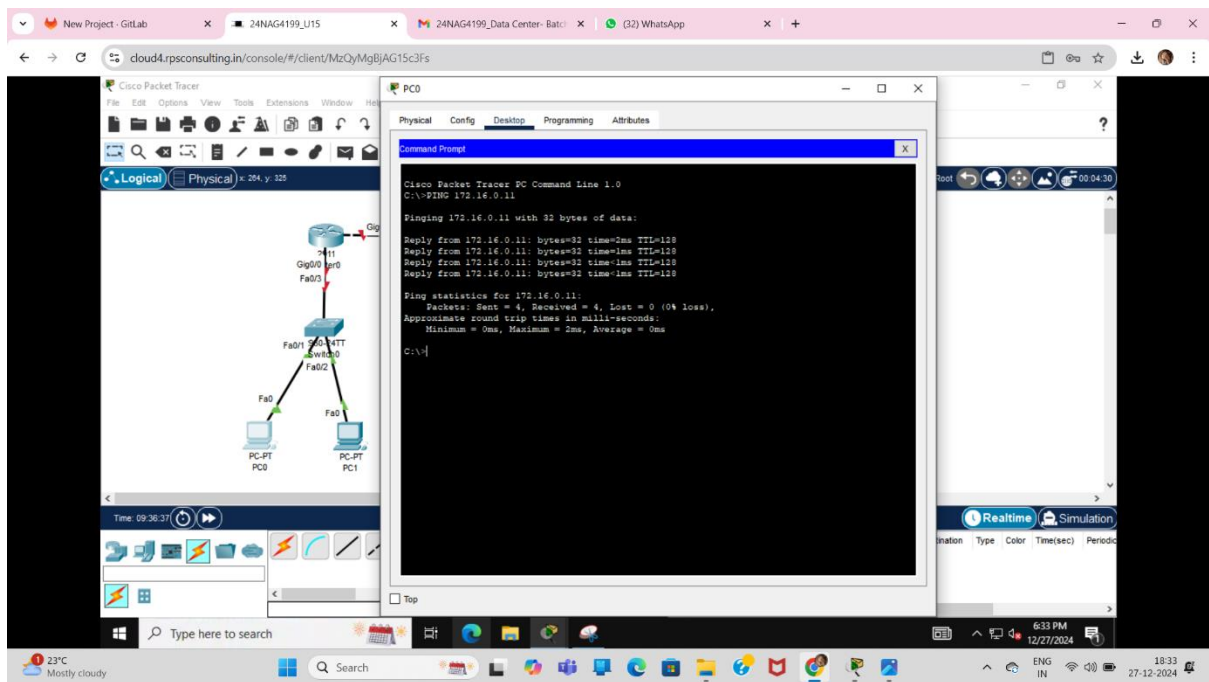


PC4 – 172.18.0.10, PC5 – 172.18.0.11 AS SHOWN BELOW.

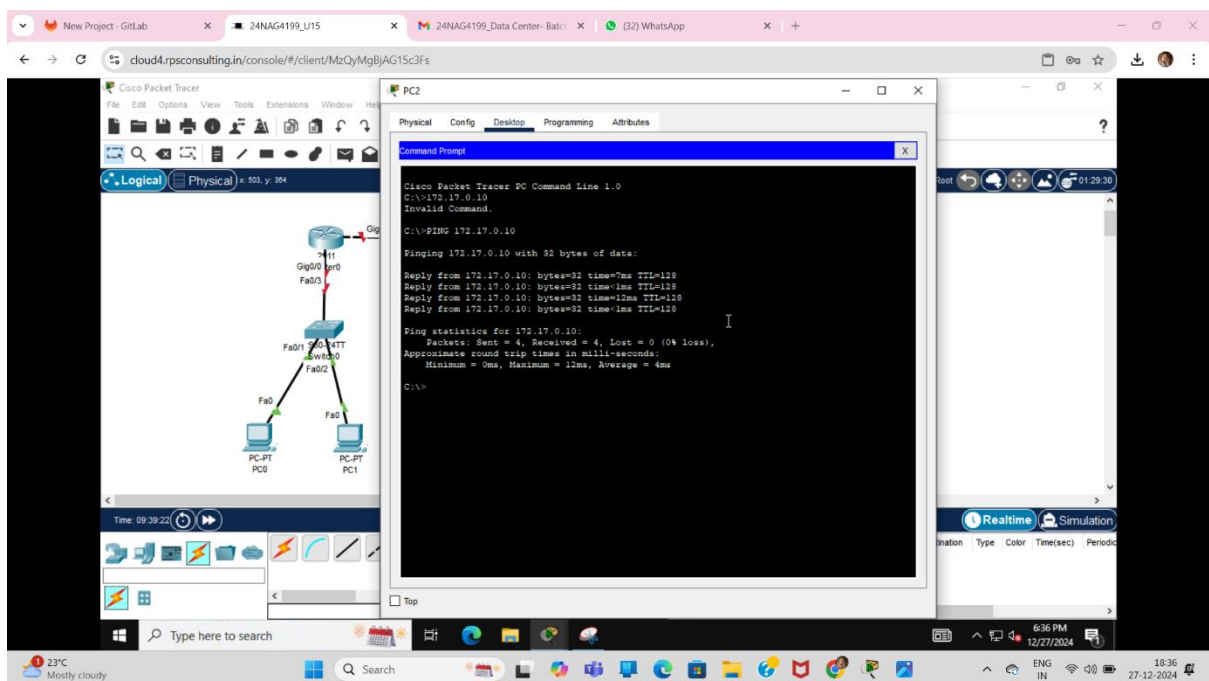


WIPO ASSIGNMENT - 1

STEP -6: NOW, WE CAN PING FROM PC0 TO PC1 AND PC1 TO PC0,



SIMILARLY, WE CAN PING FROM PC2 TO PC3 AND PC3 TO PC2



ALSO, FROM PC4 TO PC5.

BUT OUR TARGET IS TO PING FROM PC0 TO PC5,PC2,PC3,PC4.

WIPRO ASSIGNMENT - 1

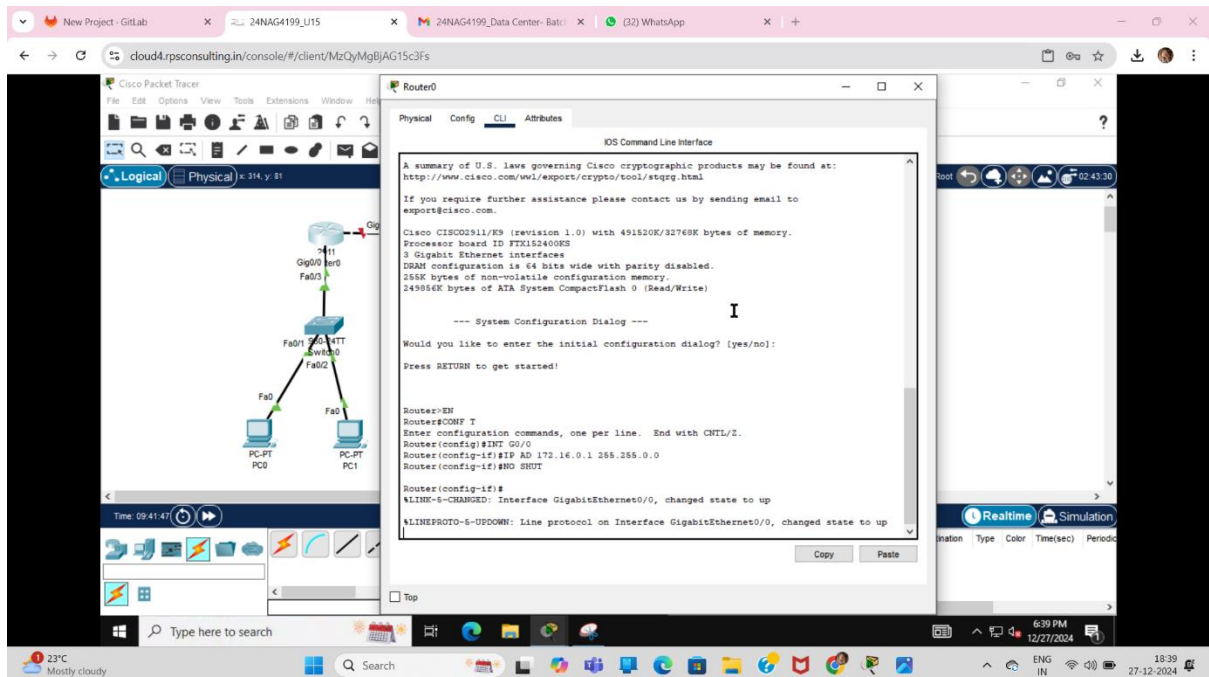
STEP -7: DOUBLE CLICK ON ROUTER 0 AND GO TO CLI AND PRESS ENTER.

GIVE THE COMMAND AS EN/ENABLE TO GO THE PRIVILIGED MODE,

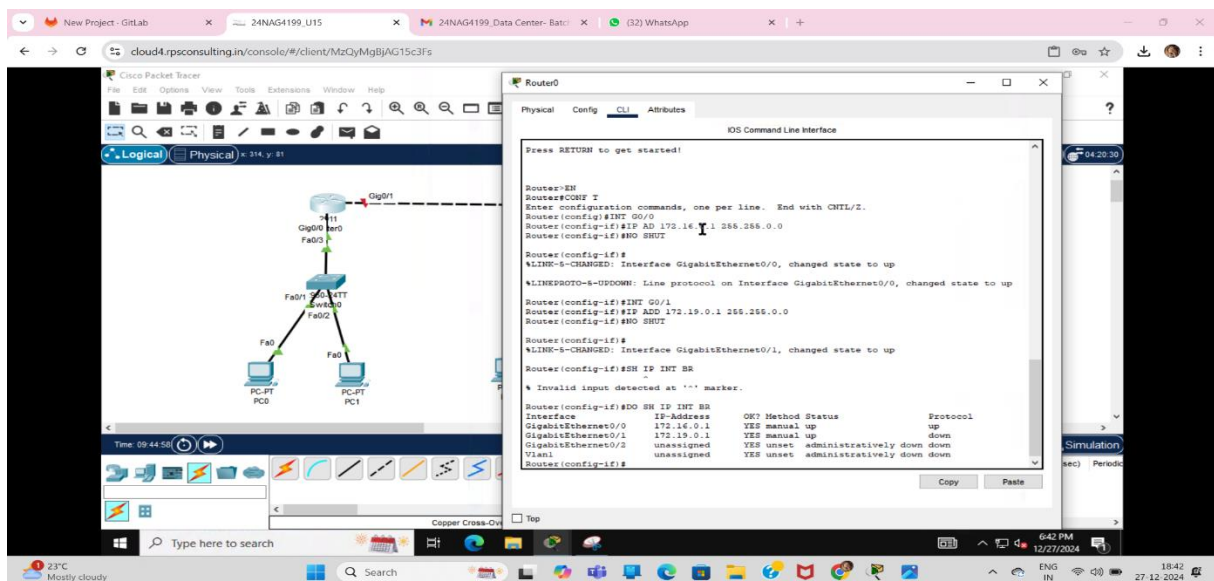
NOW TO GO TO THE GLOBAL CONFIGURATION MODE WE USE CONF T.

GIVE THE INT G0/0 AS IP ADDRESS AS 172.16.0.1 WITH SUBNET MASK 255.255.0.0

NOW, GIVE "NO SHUT" COMMAND TO TURN ON THE CONNECTION UP BETWEEN THE ROUTER 0 AND SWITCH 0.



SIMILARLY, GIVE THE “INT G0/1” COMMAND AND PRESS ENTER THEN GIVE THE IP ADDRESS AS 172.19.0.1 WHOSE SUBNET MASK IS 255.255.0.0 AND GIVE “NO SHUT” COMMAND TO TURN THE CONNECTION UP BETWEEN THE ROUTER 0 AND ROUTER 1. AS SHOWN IN THE PICTURE BELOW :



WIPO ASSIGNMENT - 1

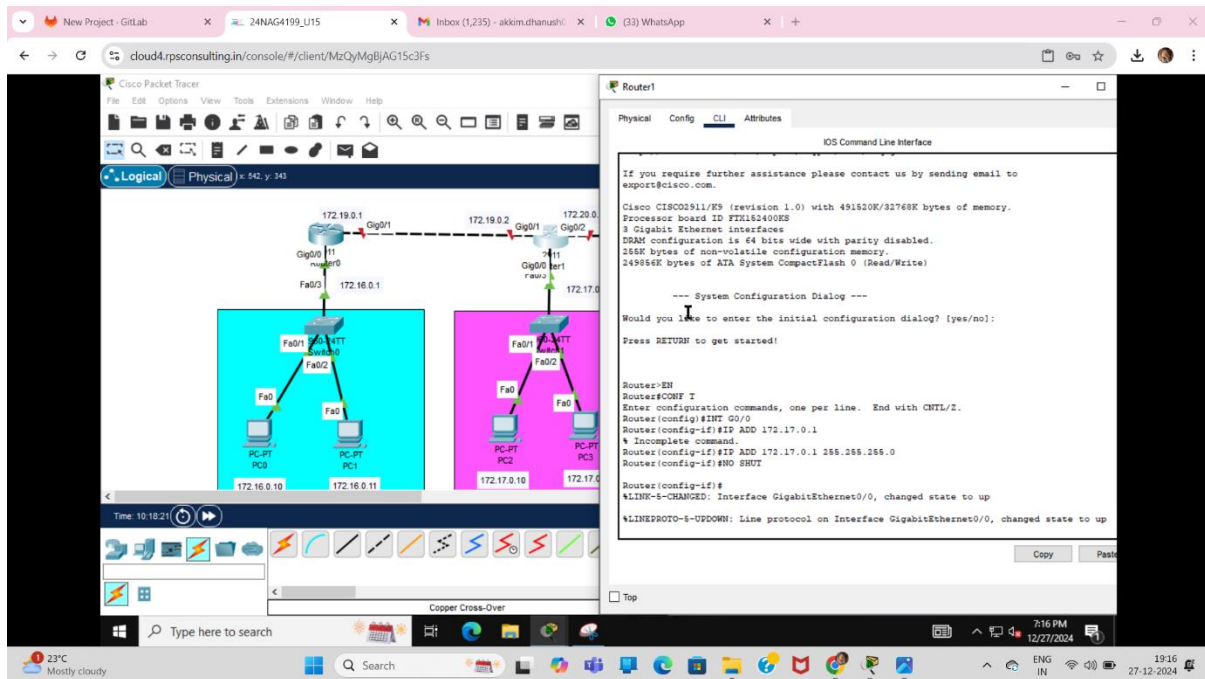
STEP -8: CLICK ON ROUTER 1 AND GO TO CLI AND PRESS ENTER.

GIVE THE COMMAND AS “EN/ENABLE” TO GO THE PRIVILIGED MODE,

NOW TO GO TO THE GLOBAL CONFIGURATION MODE WE USE “CONF T”.

GIVE THE “INT G0/0” AS IP ADDRESS AS 172.17.0.1 WITH SUBNET MASK 255.255.0.0

NOW, GIVE “NO SHUT COMMAND” TO TURN ON THE CONNECTION UP BETWEEN THE ROUTER 1 AND SWITCH 1.



SIMILARLY, GIVE THE “INT G0/1” COMMAND AND PRESS ENTER THEN GIVE THE IP ADDRESS AS 172.19.0.2 WHOSE SUBNET MASK IS 255.255.0.0 AND GIVE “NO SHUT” COMMAND TO TURN ON THE CONNECTION UP BETWEEN THE ROUTER 1 AND ROUTER 0.

SIMILARLY, GIVE THE INT G0/2 COMMAND AND PRESS ENTER THEN GIVE THE IP ADDRESS AS 172.20.0.1 WHOSE SUBNET MASK IS 255.255.0.0 AND GIVE NO SHUT COMMAND TO TURN ON THE CONNECTION UP BETWEEN THE ROUTER 1 AND ROUTER 2.

WIPO ASSIGNMENT - 1

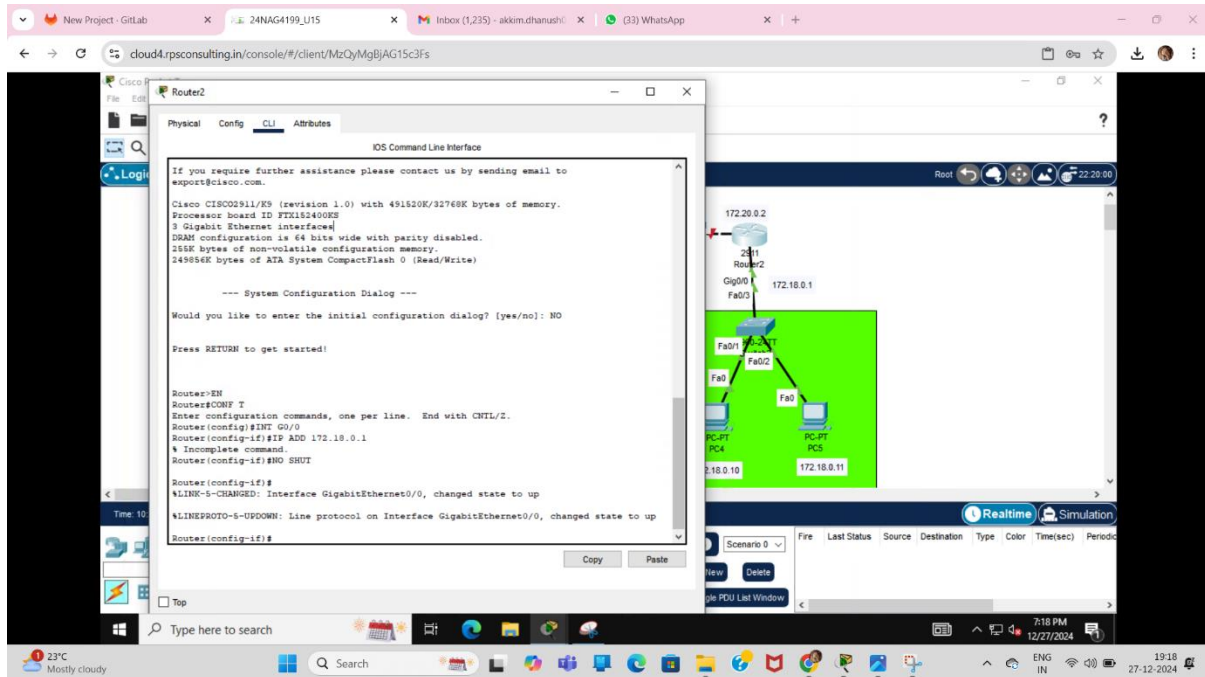
STEP -9: CLICK ON ROUTER 2 AND GO TO CLI AND PRESS ENTER.

GIVE THE COMMAND AS "EN/ENABLE" TO GO THE PRIVILIGED MODE,

NOW TO GO TO THE GLOBAL CONFIGURATION MODE WE USE "CONF T".

GIVE THE "INT G0/0" AS IP ADDRESS AS 172.18.0.1 WITH SUBNET MASK 255.255.0.0

NOW, GIVE "NO SHUT" COMMAND TO TURN ON THE CONNECTION UP BETWEEN THE ROUTER 2 AND SWITCH 2.



SIMILARLY, GIVE THE "INT G0/1" COMMAND AND PRESS ENTER THEN GIVE THE IP ADDRESS AS 172.20.0.2 WHOSE SUBNET MASK IS 255.255.0.0 AND GIVE "NO SHUT" COMMAND TO TURN ON THE CONNECTION UP BETWEEN THE ROUTER 2 AND ROUTER 1.

NOW WE CAN SEE THAT ALL THE PHYSICAL CONNECTIONS OF THE PCs, SWITCHES AND THE ROUTERS ARE CONNECTED SUCCESSFULLY. BUT IF WE TRY TO PING IT FAILS BECAUSE THE ROUTERS DON'T KNOW TO WHOM IT SHOULD SEND MESSAGE.

NOW WE SHOULD EDUCATE THE ROUTERS TO SEND THE MESSAGE AND TO RECEIVE THE MESSAGE FOR ALL THE ROUTERS.

AND WE SHOULD GIVE THE DEFAULT GATE WAY FOR THE PCs.

FOR PC0 AND PC1 THE DEFAULT GATE WAY IS 172.16.0.1 AND FOR PC2 AND PC3 THE DEFAULT GATE WAY IS 172.17.0.1 AND FOR PC4, PC5 THE DEFAULT GATE WAY IS 172.18.0.1.

WIPRO ASSIGNMENT - 1

STEP -10: WE NEED TO CREATE IP ROUTE TABLE FOR THE ROUTERS BY USING THE IP ROUTE COMMAND.

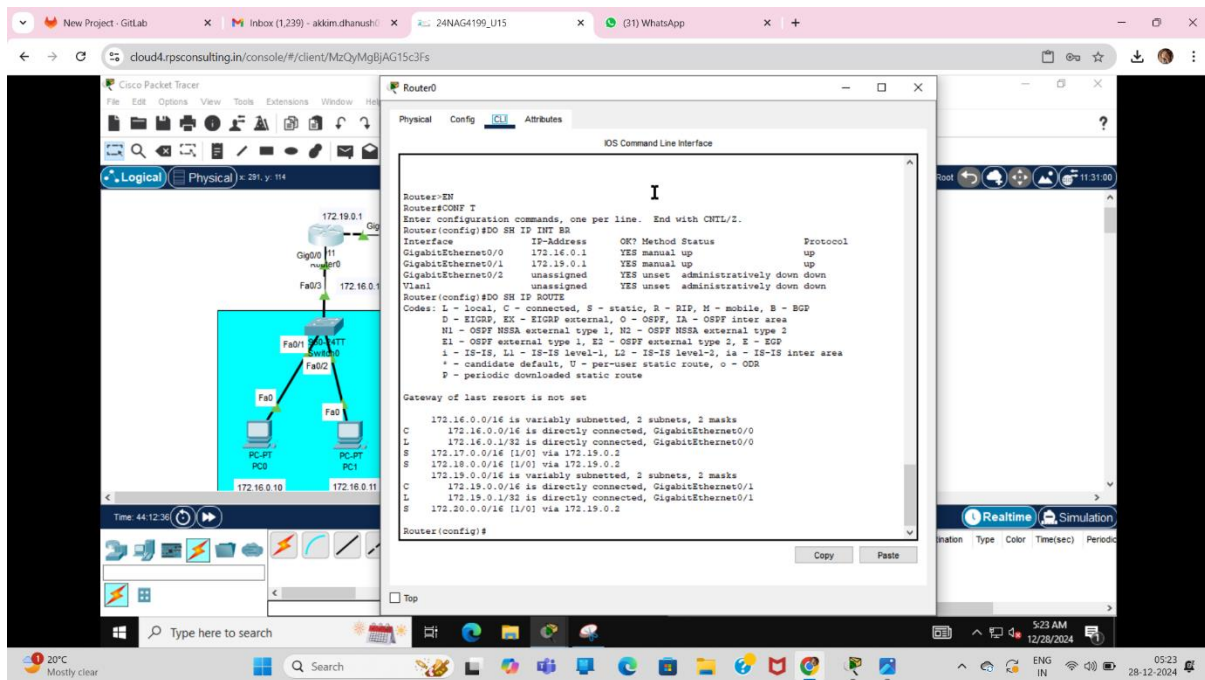
FOR ROUTER0 ,IP ROUTE 172.17.0.0 VIA 172.19.0.2,172.18.0.0 VIA 172.19.0.2 AND 172.20.0.0 VIA 172.19.0.0,

PRACTICALLY THE CODE WILL BE

ROUTER(CONFIG)# IP ROUTE 172.18.0.0 255.255.0.0 172.19.0.2

ROUTER(CONFIG)# IP ROUTE 172.17.0.0 255.255.0.0 172.19.0.2

ROUTER(CONFIG)# IP ROUTE 172.20.0.0 255.255.0.0 172.19.0.2.AS SHOWN BELOW

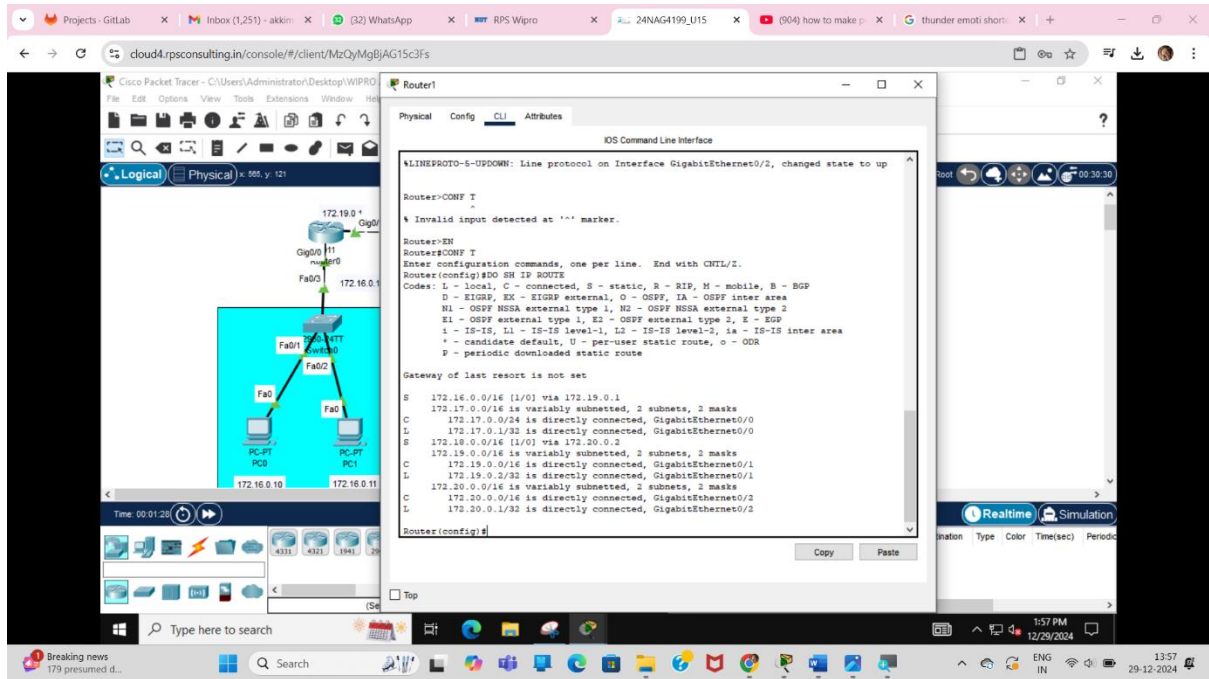


FOR THE ROUTER 1, THE IP ROUTE IS

ROUTER(CONFIG)# IP ROUTE 172.16.0.0 255.255.0.0 172.19.0.1

ROUTER(CONFIG)# IP ROUTE 172.18.0.0 255.255.0.0 172.20.0.2 AS SHOWN IN THE FIGURE.

WIPRO ASSIGNMENT - 1



SIMILARLY, FOR THE ROUTER 2

THE IP ROUTE IS

```
ROUTER(CONFIG)# IP ROUTE 172.17.0.0 255.255.0.0 172.20.0.1
```

```
ROUTER(CONFIG)# IP ROUTE 172.19.0.0 255.255.0.0 172.20.0.1
```

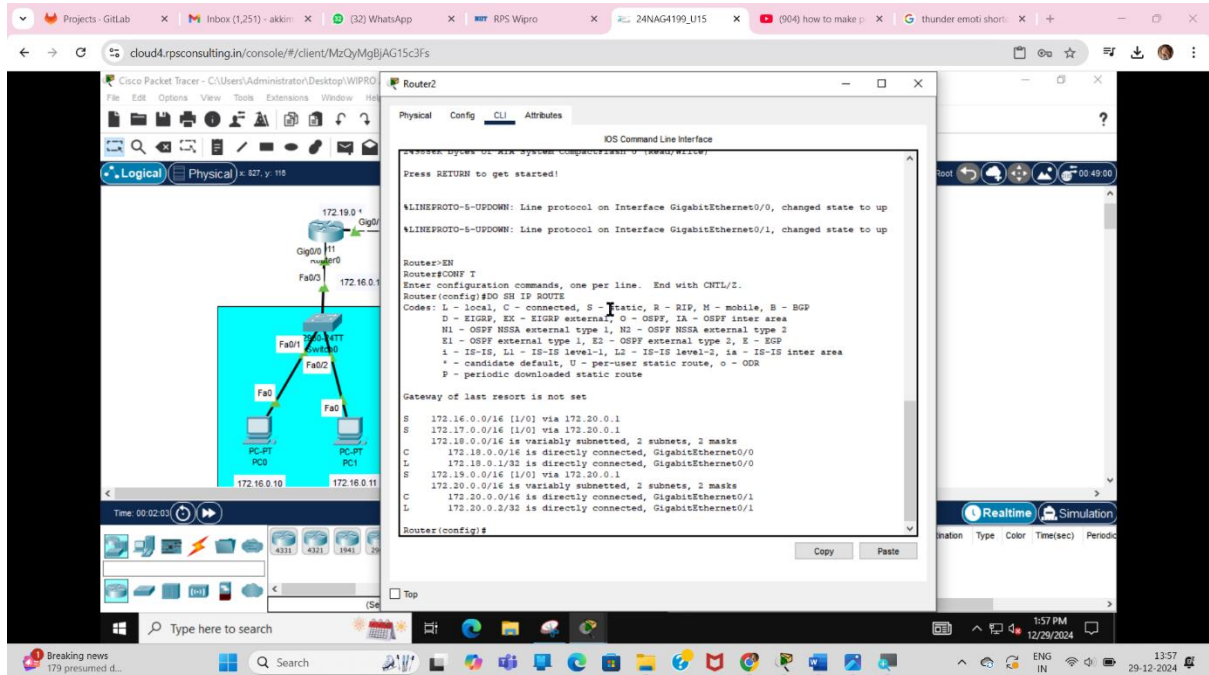
```
ROUTER(CONFIG)# IP ROUTE 172.16.0.0 255.255.0.0 172.20.0.1
```

AS SHOWN IN THE ABOVE PICTURE.

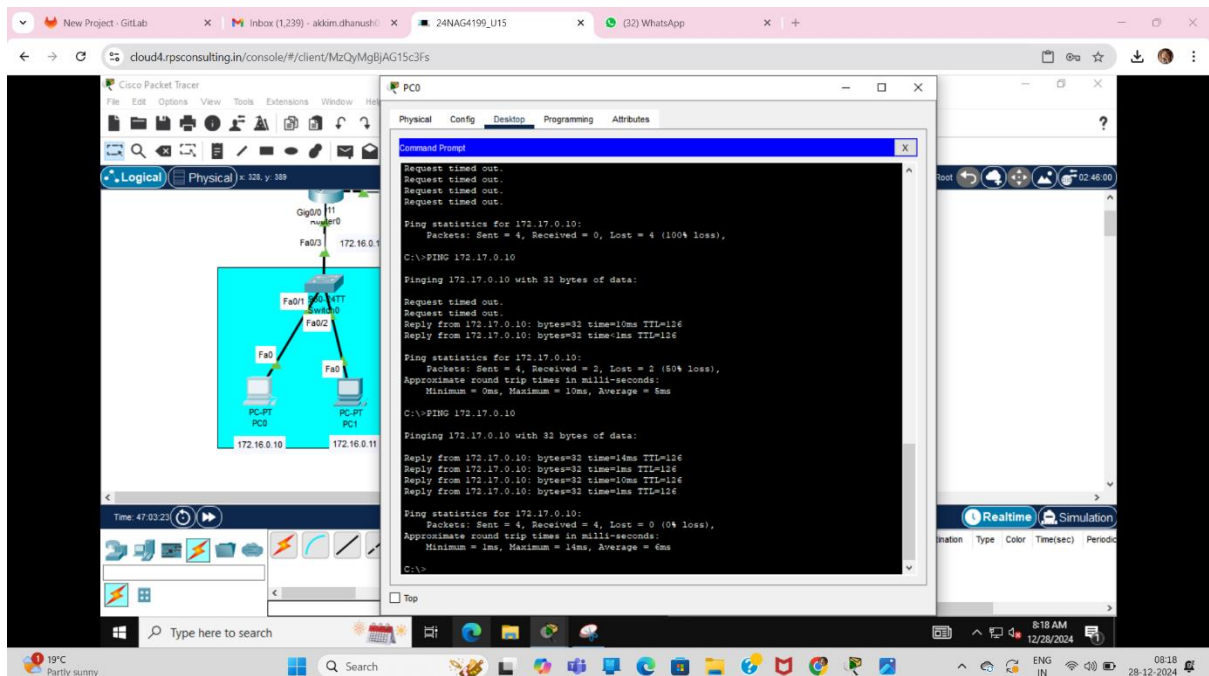
WIPO ASSIGNMENT - 1

STEP -11: NOW WE CAN SEE THE IP ROUTE BY USING THE COMMAND

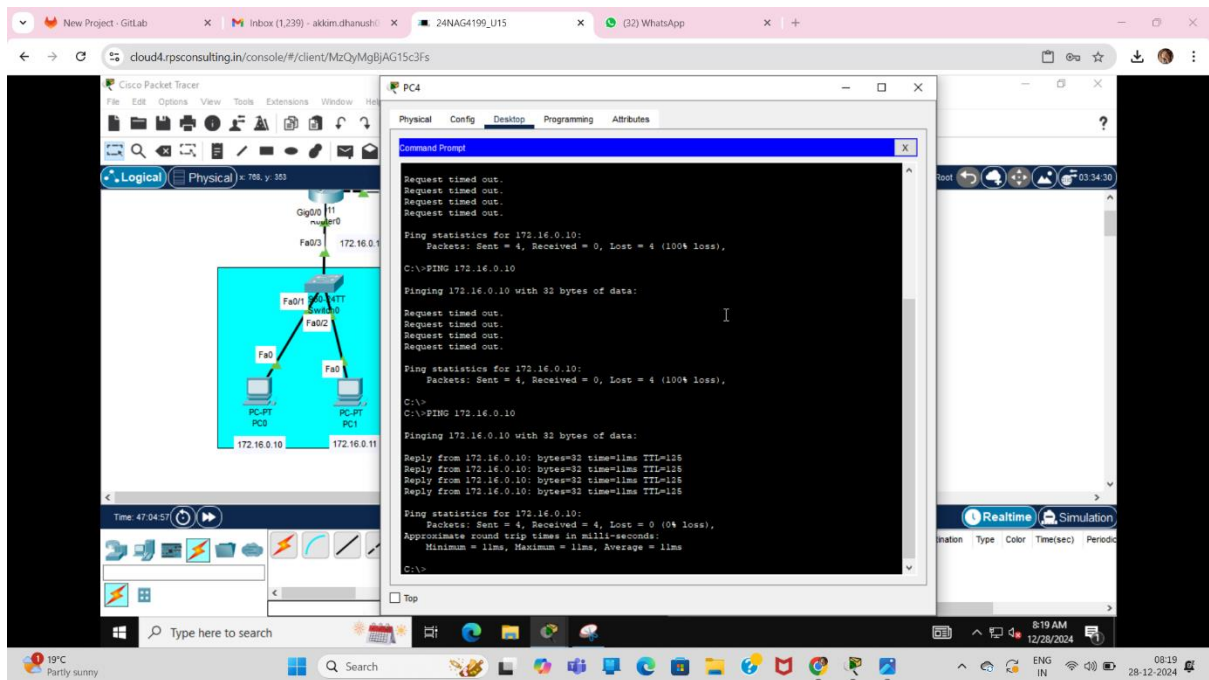
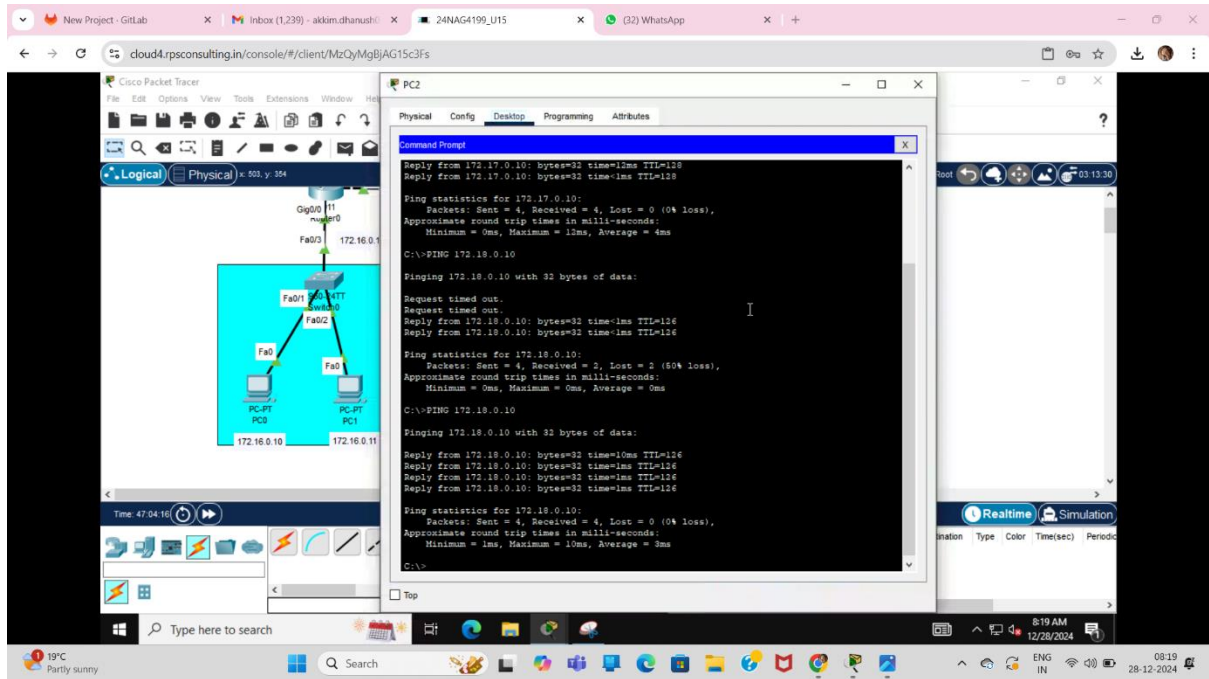
“DO SH IP ROUTE”.



HENCE, WE CAN PING THE MESSAGE FROM ANY OF THE PC TO ANY OF THEM.



WIPO ASSIGNMENT - 1



*****THANK YOU*****

WIPRO ASSIGNMENT - 1