PLATINUM JUBLEE

Celebrating 75 years of WCE & 20 years of Department

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Department of Information Technology

Computer Networks Lab

EVEN SEMESTER AY 2021-22

Submitted by

Name: Om Vivek Gharge

PRN: 2020BTEIT00041

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Contact Number: 9730369761

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Experiment Number: 2

Experiment Name: Implement and execute VLAN 1 & 2 in CISCO packet tracer on router to connect two different networks, and observe route tables and VLAN databases.

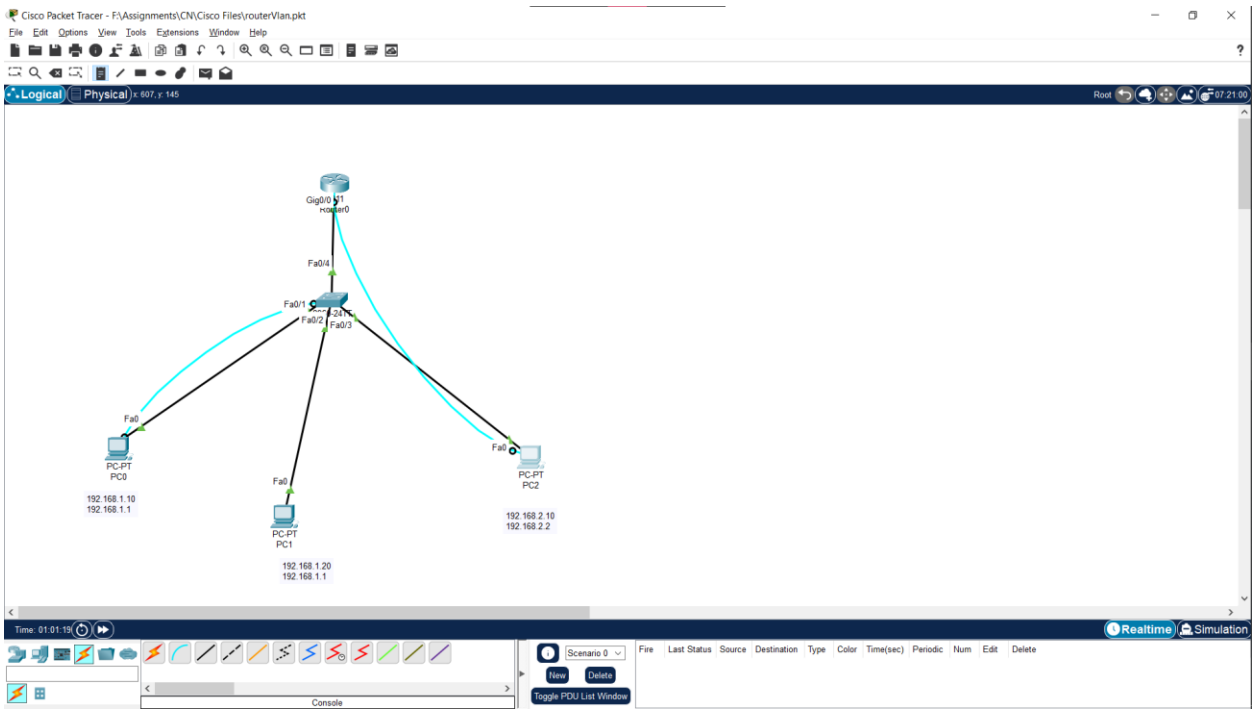
Contents:

Problem Statement:

Implement and execute VLAN 1 & 2 in CISCO packet tracer on router to connect two different networks, and observe route tables and VLAN databases.

Devices Required: PC, Switch, Router

Design:



Implementation:

1. Arrange components as shown in above diagram and assign IP to each PC and default gateway.
2. Create a LAN and Create two VLANs, One VLAN consisting of two PCs and One consisting of another one, using switch.

   Commands:

   Enable switch

   config t

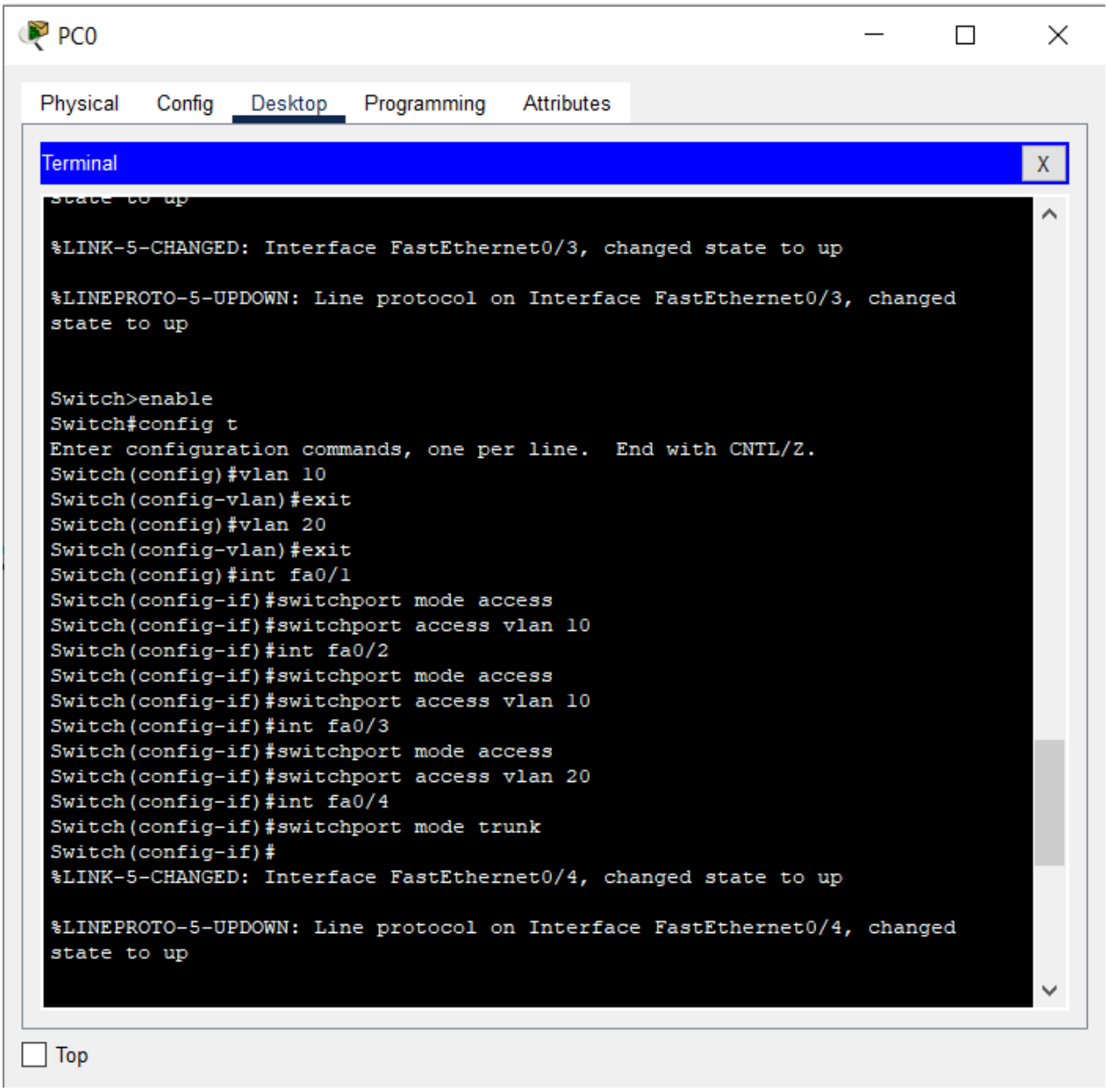
   vlan 10

   exit

   vlan 20

   exit

3. Add devices to the VLAN 10 and 20, make port Fa0/4 in trunk mode.



4. Enable and configure the router through terminal

5. Configure VLAN 10 and VLAN 20 with following commands:

   interface gigabitEthernet 0/0.10

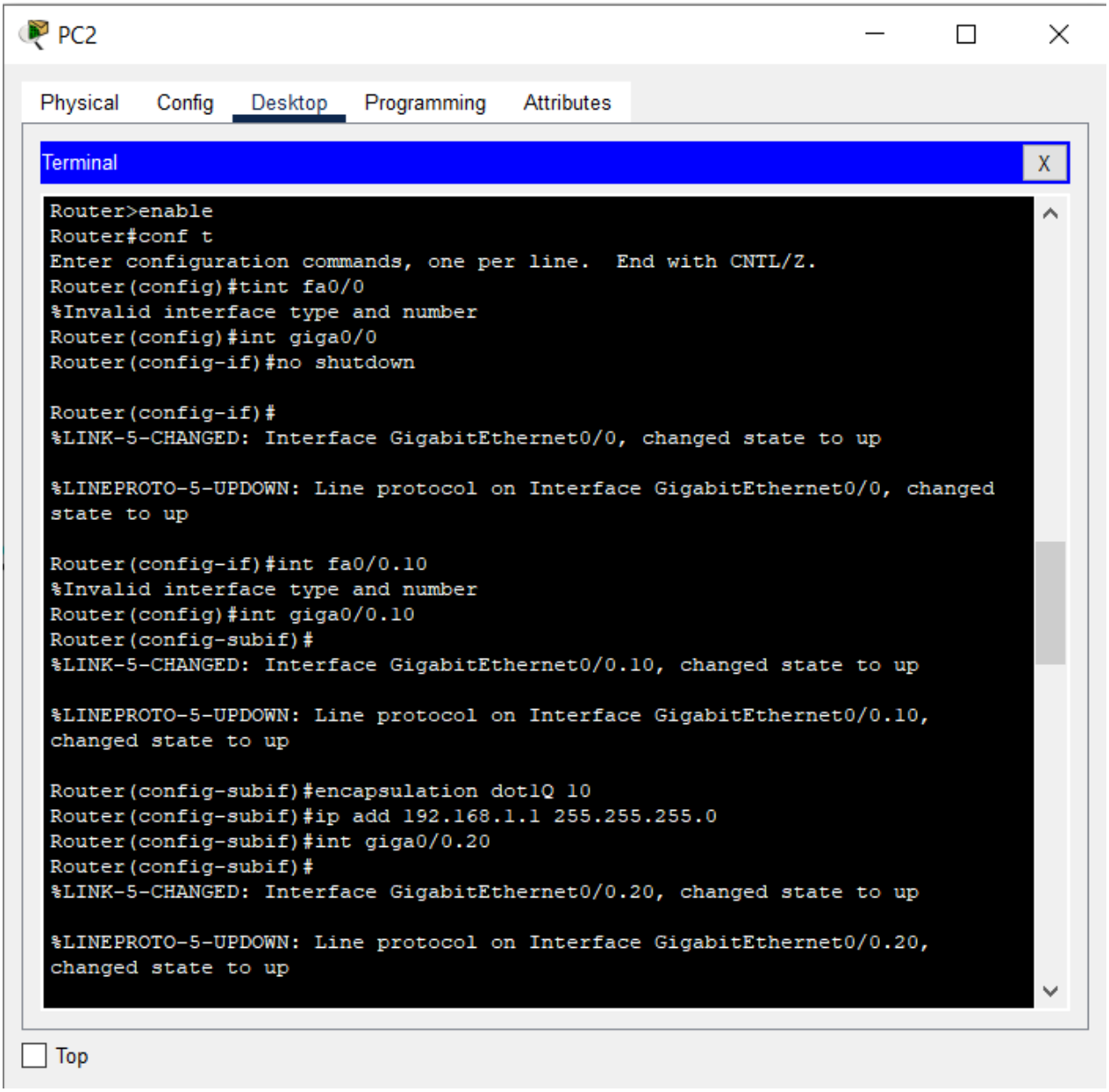
   encapsulation dot1Q 10

   ip address 192.168.1.1 255.255.255.0

   No shutdown

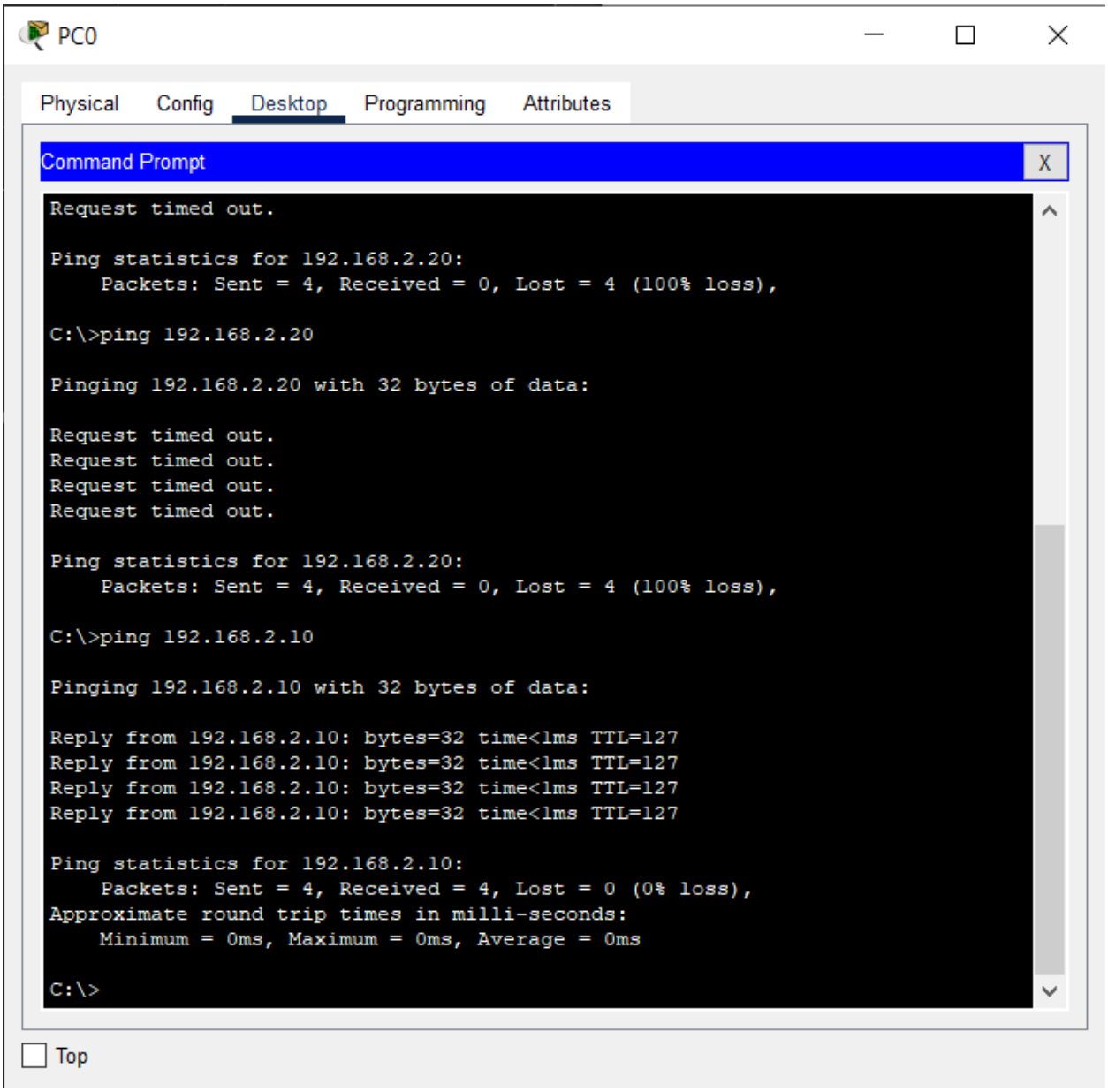
   Exit

   Similarly configure VLAN 10



6. Router is now configured, now ping pc0 and pc2 to check if packet transfer is possible in other VLAN

Results:



Conclusion:

Here PC 0 & PC1 have a successful packet transfer, thus router is successfully configured.

Dr. P. K. Kharat
(Course Teacher)