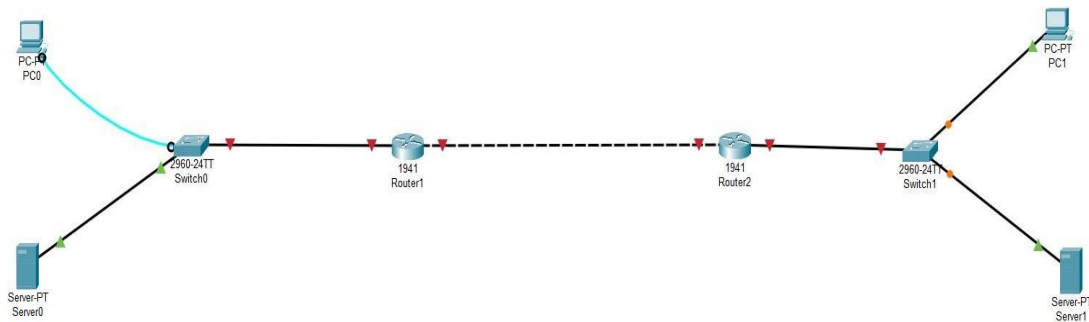**Name**: Kartikeya Acharya
Roll No.: 21UEC072
Lab: 3

Task 1: Topology

Q1: What is the significance of assigning the IP address to the VLAN1 interface instead of any of the Fast Ethernet interfaces?
Ans: control broadcasting and prevent time lag Improves security, flexibility between 2 VLAN's

Q2. What command is necessary to enforce password authentication on the console and vty lines?
Ans: A) Password authentication on the console

```
CustomerSwitch(config-line)#password cisco
CustomerSwitch(config-line)#login
CustomerSwitch(config-line)#exit
CustomerSwitch(config)#exit
CustomerSwitch#
%SYS-5-CONFIG_I: Configured from console by
console
```

B) Password authentication on the vty lines

```
CustomerSwitch(config)#line vty 0 15
CustomerSwitch(config-line)#password cisco
CustomerSwitch(config-line)#login
CustomerSwitch(config-line)#exit
```

Q3. How many gigabit ports are available on the Cisco Catalyst 2960 switch that you used in the activity? Ans:

```
CustomerSwitch>show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa0/1, Fa0/2, Fa0/3, Fa0/4
                                                Fa0/5, Fa0/6, Fa0/7, Fa0/8
                                                Fa0/9, Fa0/10, Fa0/11, Fa0/12
                                                Fa0/13, Fa0/14, Fa0/15, Fa0/16
                                                Fa0/17, Fa0/18, Fa0/19, Fa0/20
                                                Fa0/21, Fa0/22, Fa0/23, Fa0/24
                                                Gig0/1, Gig0/2
1002 fddi-default                     active
1003 token-ring-default              active
1004 fddinet-default                  active
1005 trnet-default                    active

VLAN Type  SAID       MTU   Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ ------
1    enet  100001     1500  -      -      -        -    -        0      0
1002 fddi  101002     1500  -      -      -        -    -        0      0
1003 tr    101003     1500  -      -      -        -    -        0      0
1004 fdnet 101004     1500  -      -      -        ieee -        0      0
1005 trnet 101005     1500  -      -      -        ibm  -        0      0

VLAN Type  SAID       MTU   Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ ------

Remote SPAN VLANs
```
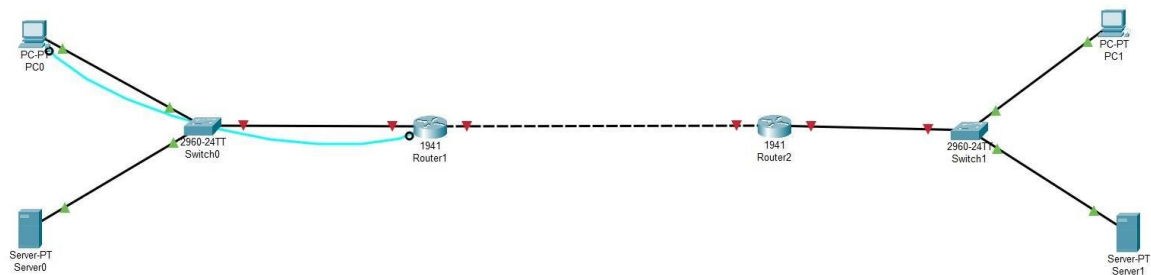
Task 2: Topology

Q1. Which Cisco ISO CLI commands did you use most?
Ans:
commands used most in User Mode : enable, exit, login Commands used most in Privileged Mode : configure terminal, exit, show run, show vlan Commands used most in Global Configuration Mode line vty 0-15, hostname, exit, enable password [password], enable secret [password],

2. How can you make the customer router passwords more secure?
Ans: making password secret i.e. encrypted.

```
customerRouter#config t
Enter configuration commands, one per line.  End with CNTL/Z.
customerRouter(config)#enable password cisco
customerRouter(config)#enable secret cisco123
```

```
CustomerRouter(config)#service password-encryption
CustomerRouter(config)#banner motd $Authorized Access Only!$
CustomerRouter(config)#no ip domain-lookup
CustomerRouter(config)#end
CustomerRouter#
%SYS-5-CONFIG_I: Configured from console by console

CustomerRouter#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
CustomerRouter#
```