# IT1080C Computer Networking

## Packet Tracer Lab 4

### Create a local area network in Packet Tracer.

In this lab, create a local area network composed of five departments plus a DMZ. Assign each LAN private IP address range in the 192.168.x.x range with a CIDR of 24 (subnet mask 255.255.255.0).

In Packet Tracer, create a local area network with six switches connected to a single router.

1. Use six Switch 2950-24 (24 interfaces) switches
2. Use PT-Router-Empty and add six 1CGE (Gigabit Ethernet) modules
3. Add two PC-PTs to each department and attach a Server-PT on the DMZ

NOTE: Annotate all configurations on the network diagram.

Annotate the subnet private IP address and CIDR on the network diagram.

      a) DMZ 192.168.0.0/24
      b) Exec Staff 192.168.1.0/24
      c) Human Relations 192.168.2.0/24
      d) Finance & Accounting 192.168.3.0/24
      e) Manufacturing 192.168.4.0/24
      f) Sales 192.168.5.0/24

Annotate the IP address for each host on the network diagram as shown in the figure below.

Configuring devices:

1. Assign the first available IP address from each subnet to the default gateway.

```
Port                Link    IP Address          IPv6 Address                    MAC Address
GigabitEthernet0/0  Up      192.168.0.1/24      <not set>                       0090.21AA.68D6
GigabitEthernet1/0  Up      192.168.1.1/24      <not set>                       0090.0CC2.6160
GigabitEthernet2/0  Up      192.168.2.1/24      <not set>                       0001.43CD.2535
GigabitEthernet3/0  Up      192.168.3.1/24      <not set>                       0090.21CA.12D6
GigabitEthernet4/0  Up      192.168.4.1/24      <not set>                       0002.1686.2EA1
GigabitEthernet5/0  Up      192.168.5.1/24      <not set>                       00E0.B097.B31B
Hostname: Router

Physical Location: Intercity, Home City, Corporate Office, Main Wiring Closet
```

2. Statically assign the IP address, subnet mask, and default gateway to each device.
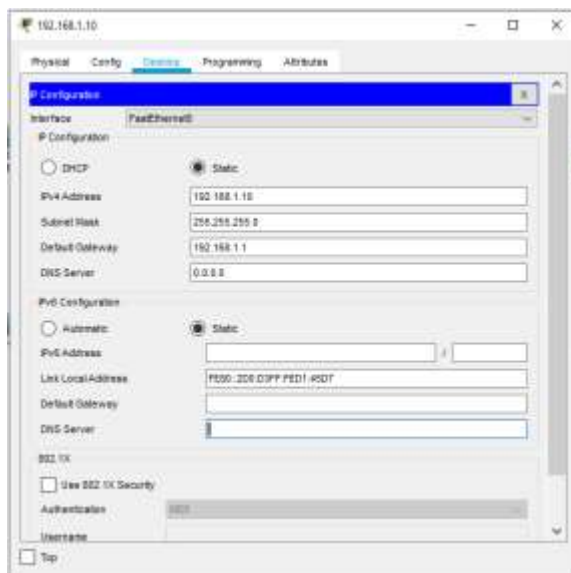


3. Connect switches to the router using a Copper Straight-Through cable.
4. Connect each device to its switch using a Copper Straight-Through cable.
5. Modify the index.html page to reflect your name and a personalized greeting.
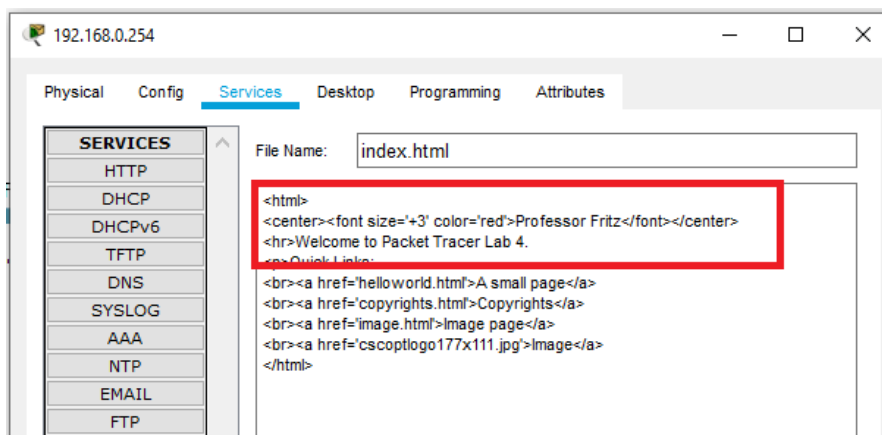


Test to ensure each device can communicate on the network.

Example of the completed network diagram.



Packet Tracer Lab 4

PC-PT
192.168.5.50

2950-24
Sales 192.168.5.0/24

PC-PT
192.168.5.51

Router-PT Empty
Company Router

2950-24
DMZ 192.168.0.0/24

Server-PT
192.168.0.254

PC-PT
192.168.4.41

2950-24
Manufacturing 192.168.4.0/24

2950-24
Exec Staff 192.168.1.0/24

PC-PT
192.168.1.10

PC-PT
192.168.4.40

2950-24
FA 192.168.3.0/24

2950-24
HR 192.168.2.0/24

PC-PT
192.168.1.11

PC-PT
192.168.3.30

PC-PT
192168.3.31

PC-PT
192.168.2.20

PC-PT
192.168.2.21