

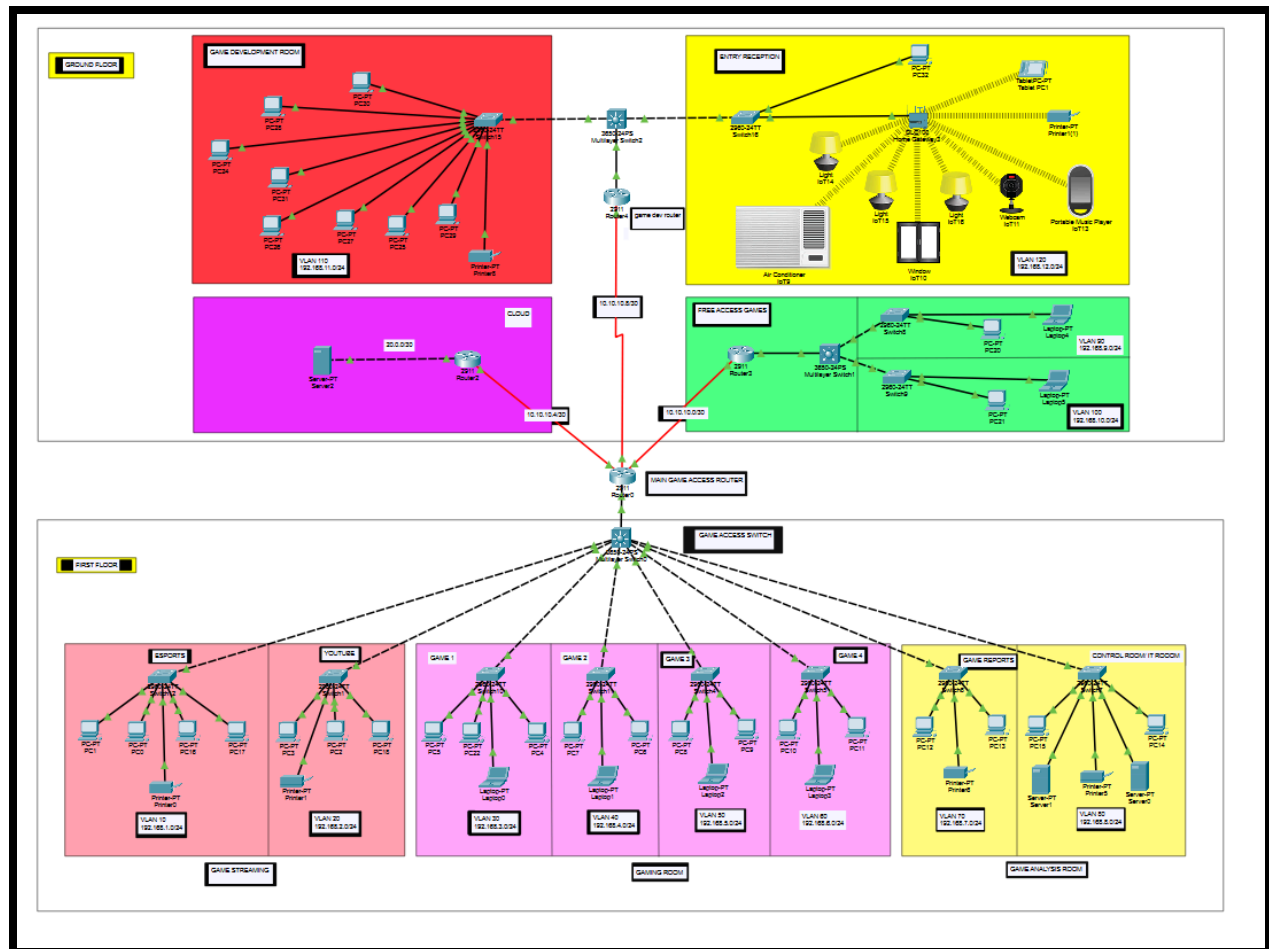
# GAME NETWORK ZONE

BANANA PROBLEM

RISHAB SHETTY

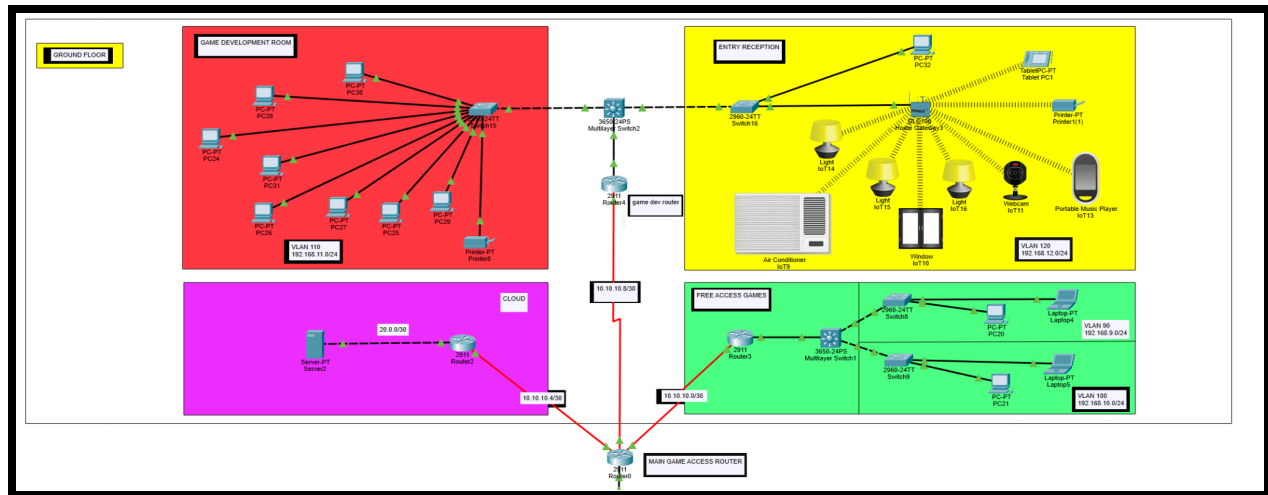
PES1UG23AM918

4TH SEM AIML 'E' SECTION



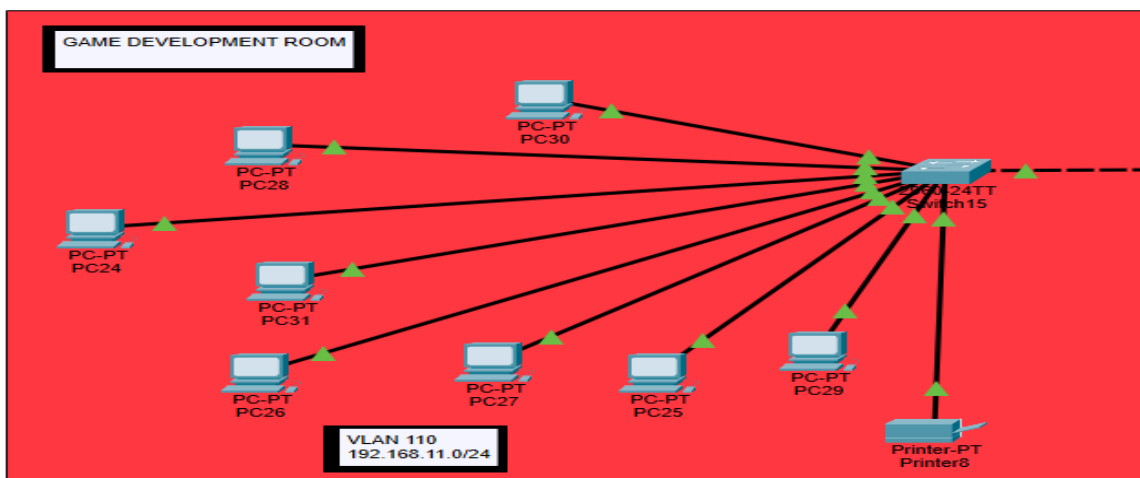
The Game network Zone is implemented within a two-floor building, ensuring full connectivity and optimized data transfer through various networking protocols.

# Ground Floor



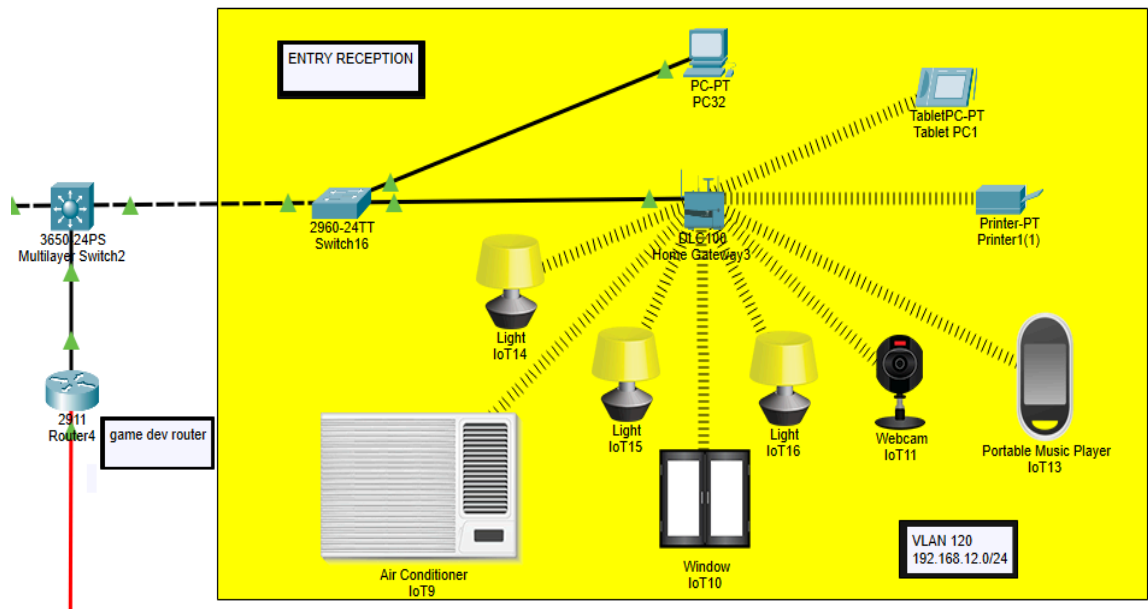
- Game Development Department

VLAN 110  
192.168.11.0/24

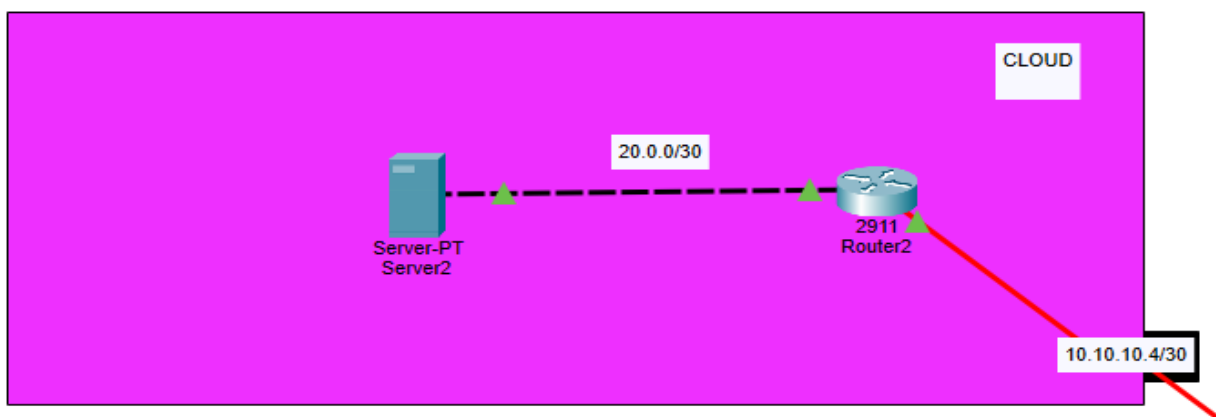


- Reception Area

VLAN 120  
192.168.12.0/24

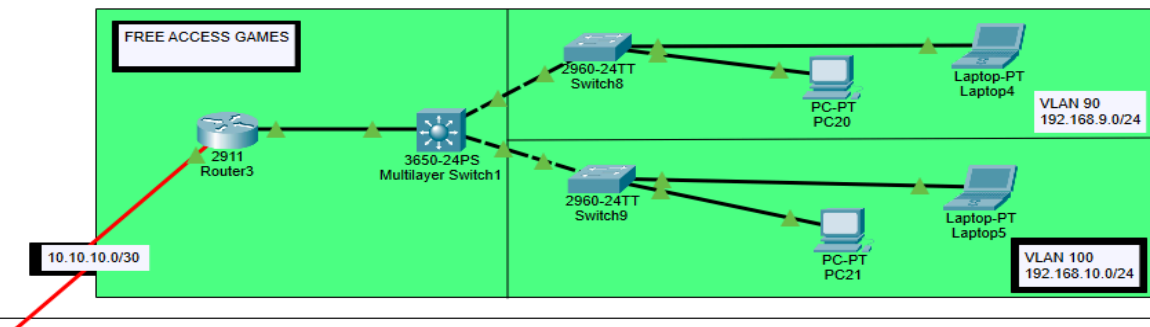


- Cloud Services

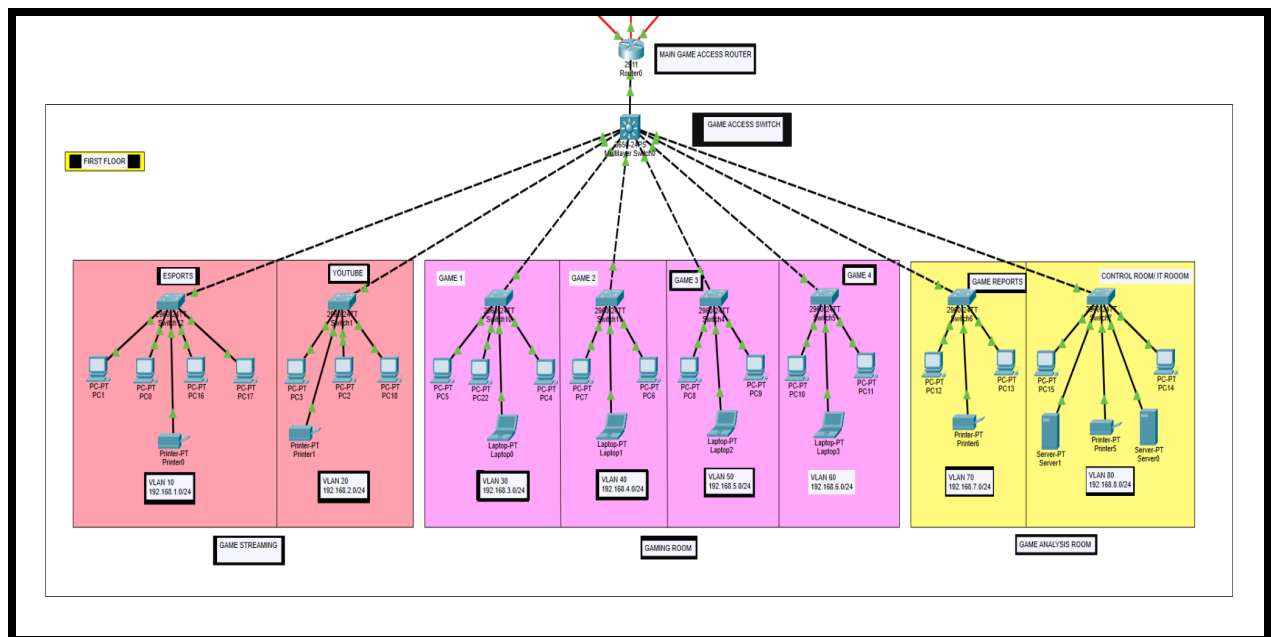


- Free Game Access Room

VLAN 100  
192.168.10.0/24



## First Floor



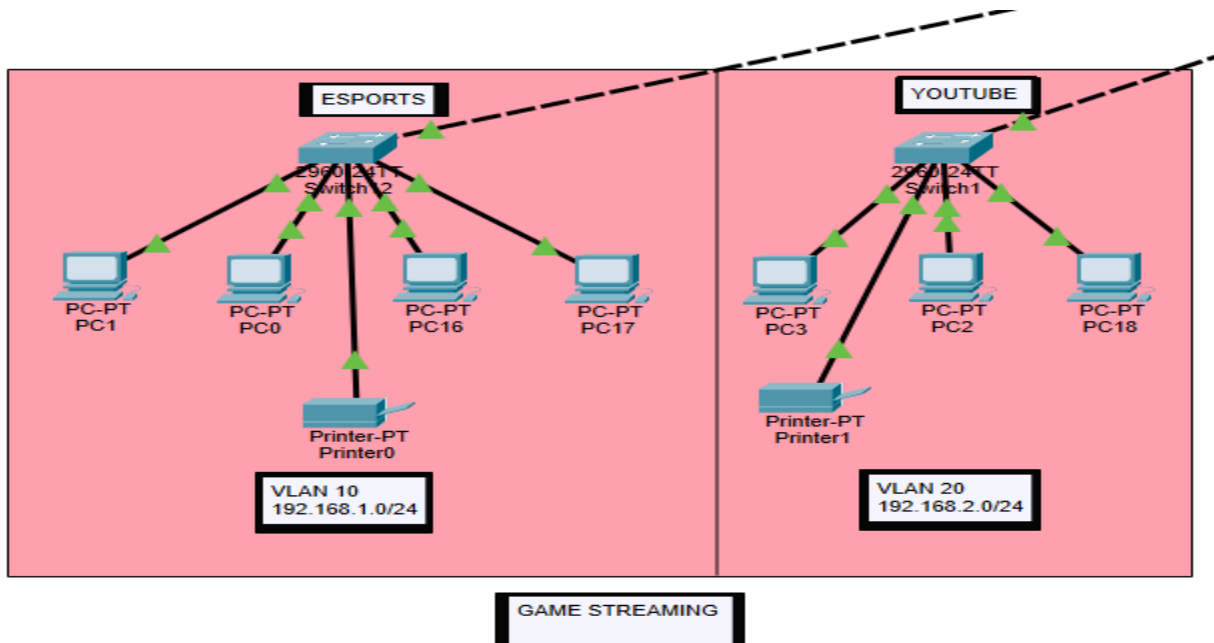
- **Game Streaming Department**

**VLAN 10 (for esports)**

**192.168.1.0/24**

**VLAN 20 (for youtube)**

**192.168.2.0/24**



- **3 Gaming Department**

**VLAN 30 (for game1)**

**192.168.3.0/24**

**VLAN 40 (for game2)**

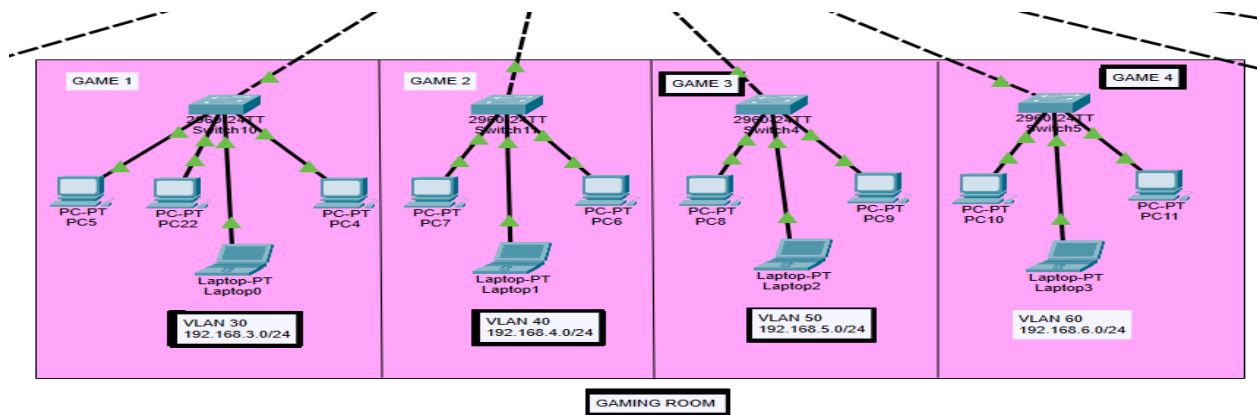
**192.168.4.0/24**

**VLAN 50 (for game3)**

**192.168.5.0/24**

**VLAN 60 (for game4)**

**192.168.6.0/24**



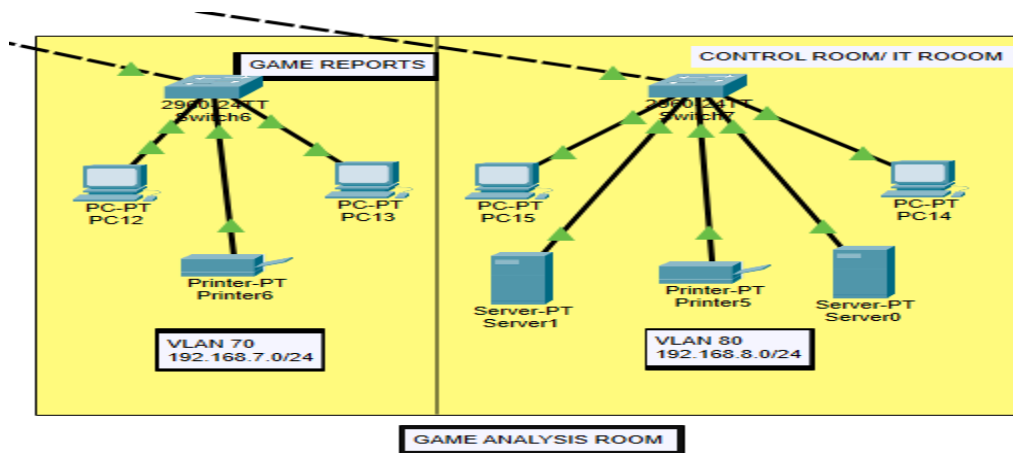
- Report Department and Control Room

VLAN 70(for game reports)

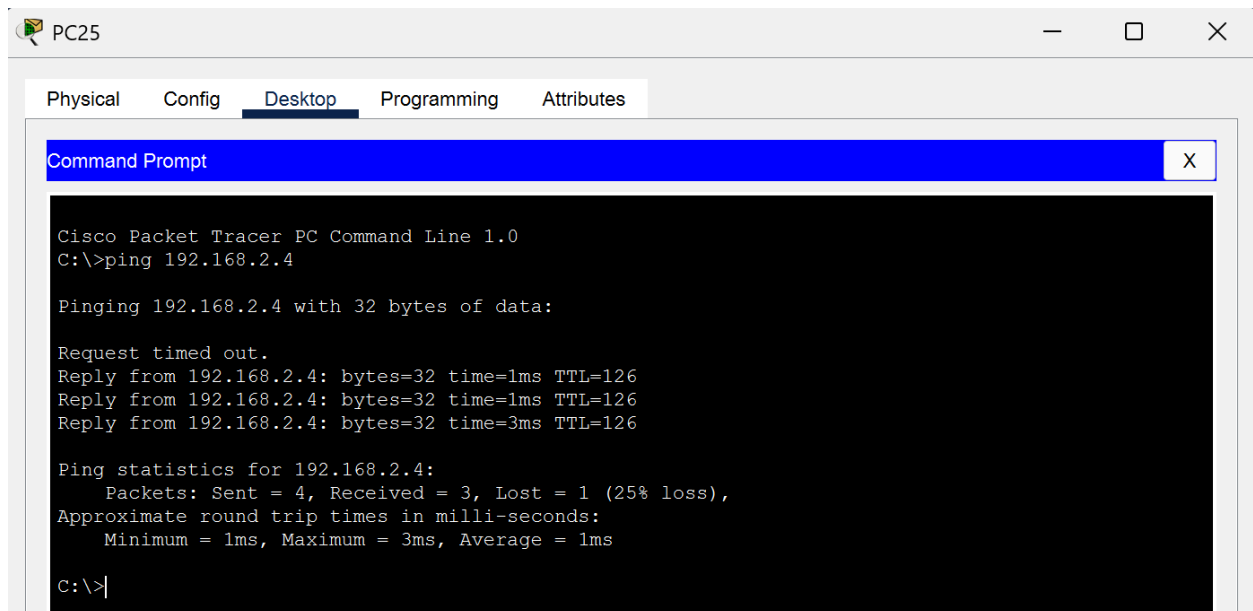
192.168.7.0/24

VLAN 80(for control room)

192.168.8.0/24



## PINGING A DEVICE TO CHECK TRANSFER OF MESSAGE FROM ONE DEPARTMENT TO ANOTHER THROUGH ROUTERS AND SWITCHES



The screenshot shows a Cisco Packet Tracer window for PC25. The 'Desktop' tab is selected, and a 'Command Prompt' window is open. The command prompt displays the output of a ping command to 192.168.2.4. The output shows a request timed out, followed by three successful replies with 32 bytes of data. The ping statistics indicate 4 packets sent, 3 received, and 1 lost (25% loss). The approximate round trip times are 1ms, 1ms, and 3ms.

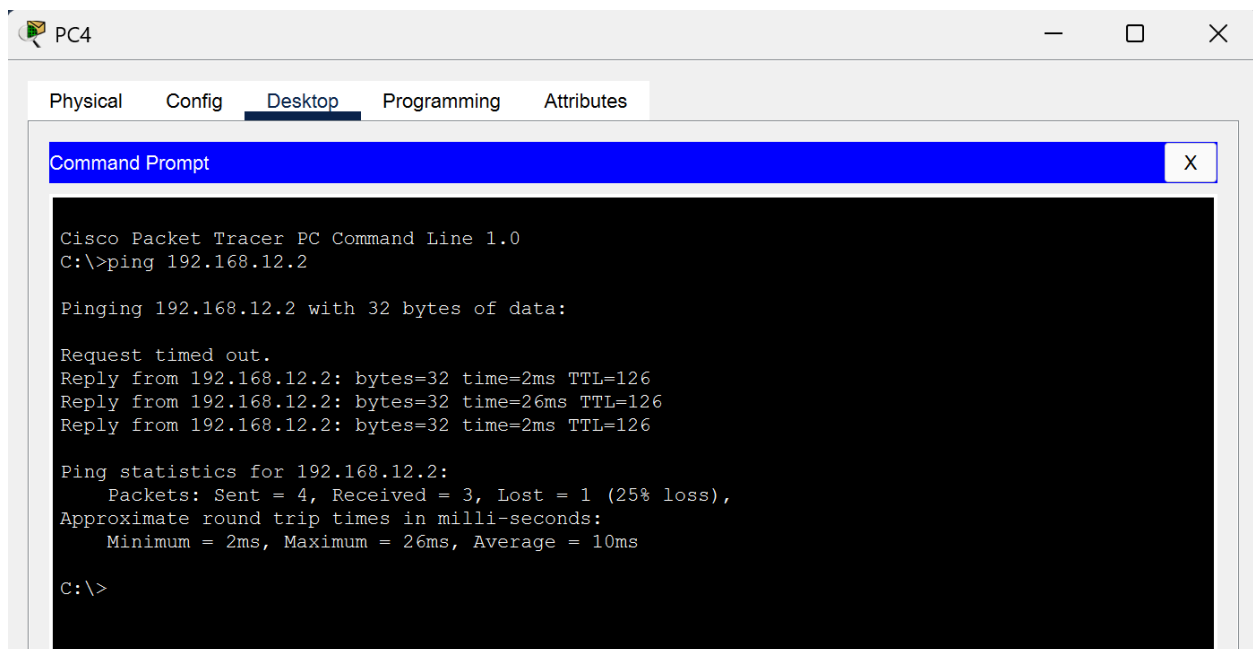
```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.4

Pinging 192.168.2.4 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.4: bytes=32 time=1ms TTL=126
Reply from 192.168.2.4: bytes=32 time=1ms TTL=126
Reply from 192.168.2.4: bytes=32 time=3ms TTL=126

Ping statistics for 192.168.2.4:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 3ms, Average = 1ms

C:\>|
```



The screenshot shows a Cisco Packet Tracer window for PC4. The 'Desktop' tab is selected, and a 'Command Prompt' window is open. The command prompt displays the output of a ping command to 192.168.12.2. The output shows a request timed out, followed by three successful replies with 32 bytes of data. The ping statistics indicate 4 packets sent, 3 received, and 1 lost (25% loss). The approximate round trip times are 2ms, 26ms, and 2ms.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.12.2

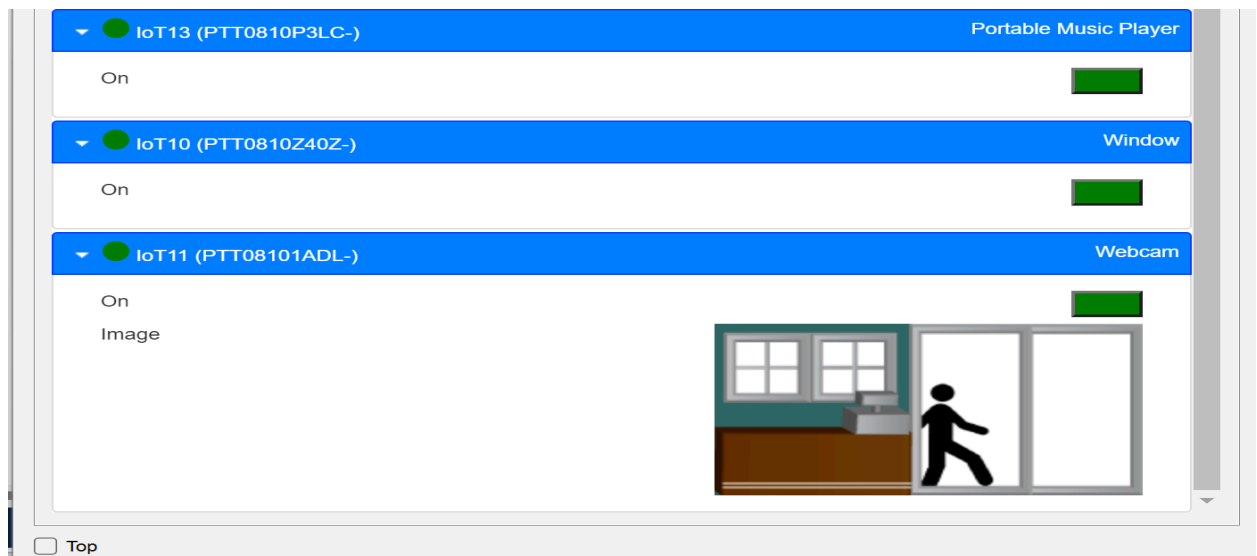
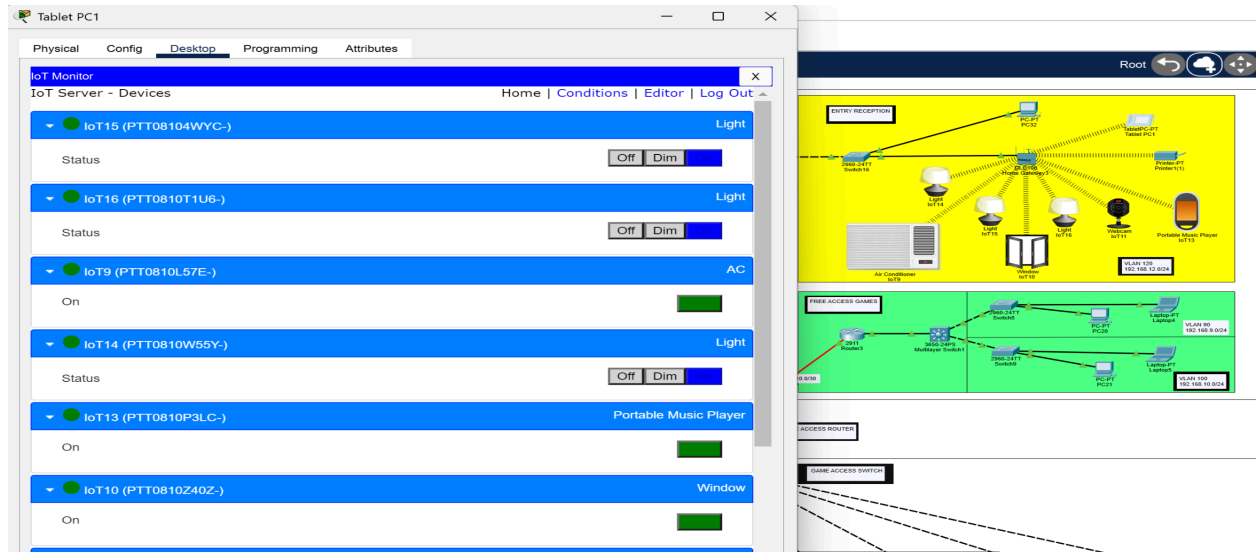
Pinging 192.168.12.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.12.2: bytes=32 time=2ms TTL=126
Reply from 192.168.12.2: bytes=32 time=26ms TTL=126
Reply from 192.168.12.2: bytes=32 time=2ms TTL=126

Ping statistics for 192.168.12.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 26ms, Average = 10ms

C:\>
```

## WORKING OF IoT





## EMAIL SERVER IN CLOUD

Server2

Physical

Config

Services

Desktop

Programming

Attributes

SERVICES

HTTP

DHCP

DHCPv6

TFTP

DNS

SYSLOG

AAA

NTP

EMAIL

FTP

IoT

VM Management

Radius EAP

SMTP Service

☒ ON ☐ OFF

POP3 Service

☒ ON ☐ OFF

EMAIL

Domain Name:

User Setup

User

Password

RISH

RISHAB

☐ Top

p.t.o

---

## CLI CONFIG

### 1. to change state of routers connection from down to up

```
en  
  
conf t  
  
int gig0/0  
  
no sh  
  
do wr  
  
ex
```

### 2. add ac power supply to each multilayer switches

### 3. to add clock rate for connections

```
in se0/1/0  
  
clock rate 64000
```

### 4. assigning vlan for each switch

```
en  
  
conf t  
  
int range fa0/1-24  
  
switchport mode access  
  
switchport access vlan 10  
  
do wr
```

---

ex

## **5. connecting multilayer switch to switch by letting multilayer switch recognise the vlan assigned to switch**

en

conf t

int gig1/0/2

switchport mode access

switchport access vlan 10

ex

#after assigning at last use

do wr

## **6. trunk from multilayer switch to router**

en

conf t

int gig1/0/1

switchport trunk encapsulation dot1q(doesn't work in 2023 version)

switchport mode trunk

ex

do wr

---

## 7. router-router connection(ip address for ports) router-server also works

```
en

conf t

int se0/1/0

ip address 10.10.10.1 255.255.255.252

ex
```

## 8. for the router know info about vlan connected

```
int gig0/0.90

encapsulation dot1Q 90

ip address 192.168.9.1 255.255.255.0

ex

do wr

service dhcp

ip dhcp pool staf-pool

network 192.168.9.0 255.255.255.0

default-router 192.168.9.1

dns-server 192.168.9.1

ex

do wr
```

---

## 9. router protocol

```
en
conf t
router rip
version 2
network 192.168.9.0
network 192.168.10.0
network 10.10.10.0
ex
do wr
```

---