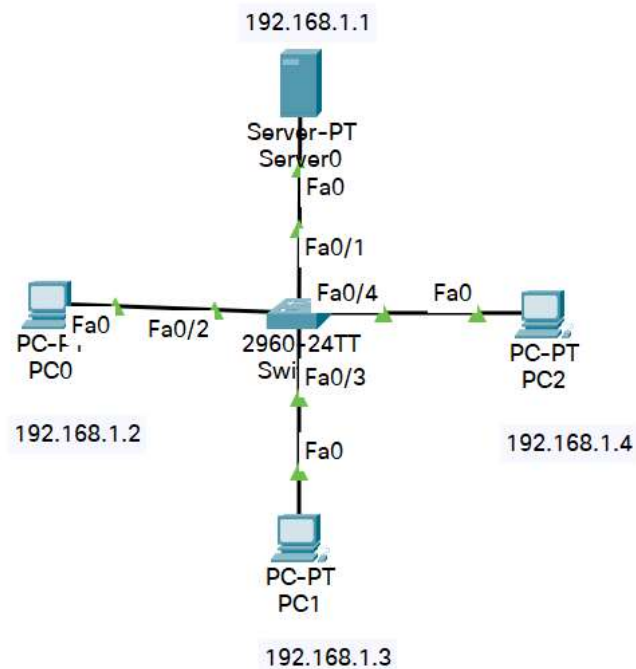


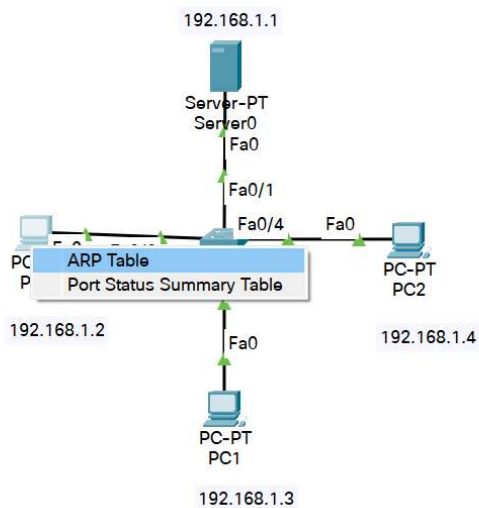
Program 9

- i. To construct simple LAN and understand the concept and operation of Address Resolution Protocol (ARP)
- ii. Procedure along with the topology



- iii. Screen shots/ output

ARP Table of PC



ARP Table for PC0		
IP Address	Hardware Address	Interface

ARP Table of Server



```
Packet Tracer PC Command Line 1.0
C:\>arp -a
No ARP Entries Found
C:\>
```

The diagram shows two network traffic capture windows side-by-side, illustrating the difference between an outgoing and an incoming ARP request.

- Left Window (Outgoing):** Titled "PDU Information at Device: PC0". The "OSI Model" tab is selected, showing "Outbound PDU Details". The "PDU Formats" section displays an ARP request packet. Key fields include:
 - PREAMBLE: 101010...10
 - SF D: DEST ADDR: FFFF.FFFF.FF FF
 - SRC ADDR: 00D0.BA3A.5E89
 - TYPE: 0x0806
 - DATA (VARIABLE LENGTH): FCS: 0x00000000
 - HARDWARE TYPE: 0x0001
 - PROTOCOL TYPE: 0x0800
 - HLEN: 0x06
 - PLEN: 0x04
 - OPCODE: 0x0001
 - SOURCE MAC: 00D0.BA3A.5E89
 - SOURCE IP: 192.168.1.2
 - TARGET MAC: 0000.0000.0000
 - TARGET IP: 192.168.1.1
- Right Window (Incoming):** Titled "PDU Information at Device: PC0". The "OSI Model" tab is selected, showing "Inbound PDU Details". The "PDU Formats" section displays an ARP response packet. Key fields include:
 - PREAMBLE: 101010...10
 - SF D: DEST ADDR: 00D0.BA3A.5E89
 - SRC ADDR: 0090.0C07.D5BB
 - TYPE: 0x0806
 - DATA (VARIABLE LENGTH): FCS: 0x00000000
 - HARDWARE TYPE: 0x0001
 - PROTOCOL TYPE: 0x0800
 - HLEN: 0x06
 - PLEN: 0x04
 - OPCODE: 0x0002
 - SOURCE MAC: 0090.0C07.D5BB
 - SOURCE IP: 192.168.1.1
 - TARGET MAC: 00D0.BA3A.5E89
 - TARGET IP: 192.168.1.2