**Name**: Chase Killorin

**Activity 4 – Generate network data**

<BOB\_VM\_IP> = 192.168.197.136



Take a screenshot of your command-line windowshowing the

* ping command and the result of the ping operation, data displayed
* arp command and the result of the arp operation, data displayed

**Text

Description automatically generated**

**Activity 5 – Collect and analyze Wireshark data**



ARP request frame

|  |  |
| --- | --- |
| **Ethernet II** | **value** |
| Destination | ff:ff:ff:ff:ff:ff |
| Source | 00:50:56:b0:ca:cb |
| Type | 0x0806 |

|  |  |
| --- | --- |
| **Address Resolution Protocol (request)** | **value** |
| Sender MAC address | 00:50:56:b0:ca:cb |
| Sender IP address | 192.168.193.131 |
| Target MAC address | 00:00:00:00:00:00 |
| Target IP address | 192.168.197.136 |



ARP reply frame

|  |  |
| --- | --- |
| **Ethernet II** | **value** |
| Destination | 00:50:56:b0:45:ee |
| Source | 00:50:56:b0:ca:cb |
| Type | 0x0806 |

|  |  |
| --- | --- |
| **Address Resolution Protocol (reply)** | **value** |
| Sender MAC address | 00:50:56:b0:ca:cb |
| Sender IP address | 192.168.193.131 |
| Target MAC address | 00:50:56:b0:45:ee |
| Target IP address | 192.168.197.136 |

Briefly describe your observations looking at Target MAC address in the ARP reply frame and Destination value in the Ethernet header.

The Target MAC address and the Destination value are the same.

ICMP Echo Request frame

|  |  |
| --- | --- |
| **Ethernet II** | **value** |
| Destination | 05:50:56:b0:45:ee |
| Source | 00:50:56:b0:ca:cb |
| Type | 0x0800 |

|  |  |
| --- | --- |
| **Internet Protocol Version 4** | **value** |
| Src | 192.168.193.131 |
| Dst | 192.168.197.136 |
| Protocol | ICMP (1) |

Identify the IP addresses and the VM’s host they belong to

|  |  |
| --- | --- |
| **IP Address** | **VM host name** |
| 192.168.193.131 | **Alice** |
| 192.168.197.136 | **Bob** |

<DEFAULT\_GATEWAY\_ IP> = 192.168.207.254

ARP reply frame

|  |  |
| --- | --- |
| **Ethernet II** | **value** |
| Destination | 00:50:56:b0:ca:cb |
| Source | 00:50:56:b0:b8:c4 |
| Type | 0x0806 |

|  |  |
| --- | --- |
| **Address Resolution Protocol (reply)** | **value** |
| Sender MAC address | 00:50:56:b0:ca:cb |
| Sender IP address | 192.168.193.131 |
| Target MAC address | 00:50:56:b0:b8:c4 |
| Target IP address | 192.168.207.254 |

ICMP Echo Request frame

|  |  |
| --- | --- |
| **Ethernet II** | **value** |
| Destination | 00:50:56:b0:b8:c4 |
| Source | 00:50:56:b0:ca:cb |
| Type | 0x0800 |

|  |  |
| --- | --- |
| **Internet Protocol Version 4** | **value** |
| Src | 192.168.193.131 |
| Dst | 142.251.32.100 |
| Protocol | ICMP (1) |

ICMP Echo Reply frame

|  |  |
| --- | --- |
| **Ethernet II** | **value** |
| Destination | 00:50:56:b0:ca:cb |
| Source | 00:50:56:b0:b8:c4 |
| Type | 0x0800 |

|  |  |
| --- | --- |
| **Internet Protocol Version 4** | **value** |
| Src | 142.251.32.100 |
| Dst | 192.168.193.131 |
| Protocol | ICMP (1) |