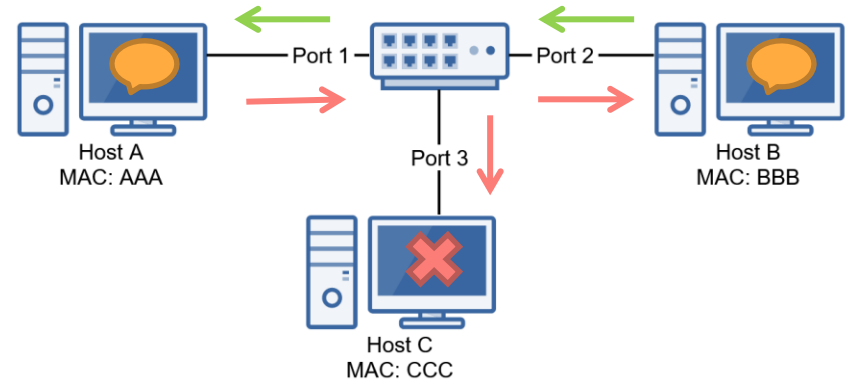


# How a Switch Learns MAC Addresses

## The Switch Learning Process

- Host A sends Ethernet frame to Host B
  - Source:** AAA, **Destination:** BBB
- Switch records that Host A's MAC address is on Port 1 in its MAC Address Table.
- Switch doesn't know what port Host B is using, so it will flood ports 2 and 3 (broadcast).
- Hosts B & C will examine the Ethernet frame. Host C will discard it and Host B will respond to Host A.
  - Source:** BBB, **Destination:** AAA.
- When Host B responds, the switch will record Host B's MAC address on Port 2.
- The switch already knows that Host A is on Port 1, so it will forward the Ethernet frame to Port 1.



Switch's MAC Address Table	
Port Number	MAC Address
1	
2	