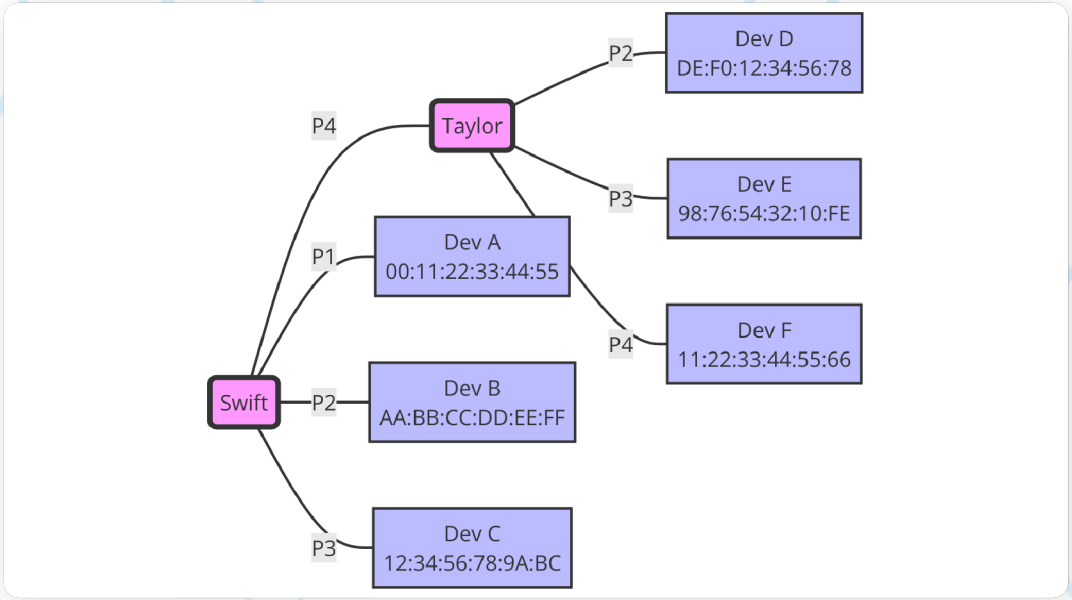
Switch 2: More fun with packets!

Background

In the town of Switchville, the network has grown, and a new switch named Taylor has been added to work alongside the existing switch, Swift. The two switches are connected to each other, and more devices have been added to the network, connected to both switches.

Swift and Taylor must work together to ensure that packets are delivered efficiently to their intended recipients. They will learn the MAC addresses of the devices connected to them and update their switching tables accordingly.

Network Configuration



- Swift: 4-port switch (ports 1-4)
    - Port 1: Connected to Device A
    - Port 2: Connected to Device B
    - Port 3: Connected to Device C
    - Port 4: Connected to Taylor port 1

- Taylor: 4-port switch (ports 1-4)
    - Port 1: Connected to Swift port 4
    - Port 2: Connected to Device D
    - Port 3: Connected to Device E
    - Port 4: Connected to Device F
- Device A: MAC address: 00:11:22:33:44:55, connected to Swift port 1
- Device B: MAC address: AA:BB:CC:DD:EE:FF, connected to Swift port 2
- Device C: MAC address: 12:34:56:78:9A:BC, connected to Swift port 3
- Device D: MAC address: DE:F0:12:34:56:78, connected to Taylor port 2
- Device E: MAC address: 98:76:54:32:10:FE, connected to Taylor port 3
- Device F: MAC address: 11:22:33:44:55:66, connected to Taylor port 4

Packet Flow

1. Packet 1: Source MAC: 00:11:22:33:44:55 (Device A), Destination MAC: AA:BB:CC:DD:EE:FF (Device B)
2. Packet 2: Source MAC: AA:BB:CC:DD:EE:FF (Device B), Destination MAC: 00:11:22:33:44:55 (Device A)
3. Packet 3: Source MAC: 12:34:56:78:9A:BC (Device C), Destination MAC: DE:F0:12:34:56:78 (Device D)
4. Packet 4: Source MAC: 98:76:54:32:10:FE (Device E), Destination MAC: 11:22:33:44:55:66 (Device F)
5. Packet 5: Source MAC: 00:11:22:33:44:55 (Device A), Destination MAC: 98:76:54:32:10:FE (Device E)
6. Packet 6: Source MAC: 12:34:56:78:9A:BC (Device C), Destination MAC: FF:FF:FF:FF:FF:FF (Broadcast)
7. Packet 7: Source MAC: 11:22:33:44:55:66 (Device F), Destination MAC: 00:11:22:33:44:55 (Device A)
8. Packet 8: Source MAC: DE:F0:12:34:56:78 (Device D), Destination MAC: AA:BB:CC:DD:EE:FF (Device B)

Instructions

For each packet in the packet flow, determine which ports on Swift and Taylor the packet will be sent to based on their current switching tables. Fill in the table below, indicating the port number(s) or "Broadcast" if the packet is broadcast to all ports except the one on which it was received.

Packet	Swift Port(s)	Taylor Port(s)
1		
2		
3		
4		
5		
6		
7		
8		

Hint: Remember, both switches start with empty switching tables and learn the MAC addresses of the devices as they process the packets. If a switch doesn't have the destination MAC address in its switching table, it will broadcast the packet to all ports except the one on which it was received.

Good luck helping Swift and Taylor manage the growing network of Switchville!

To Submit

Submit your completed table indicating the port(s) each packet is sent to in a text file and upload it.