DAY 9 - Switch Interfaces

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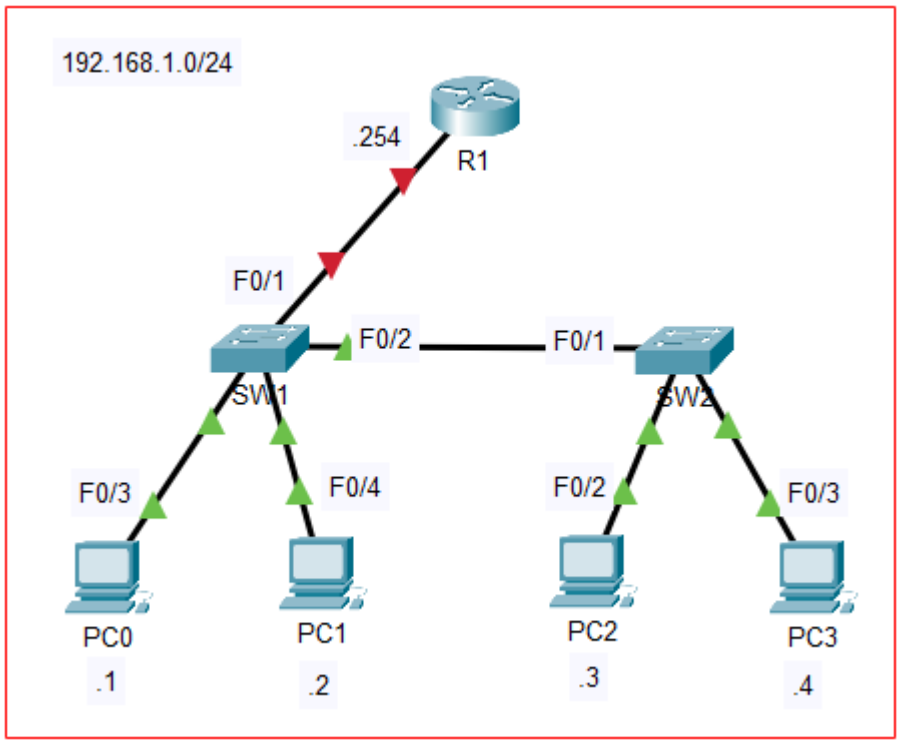
Switch Interface



From SW1:

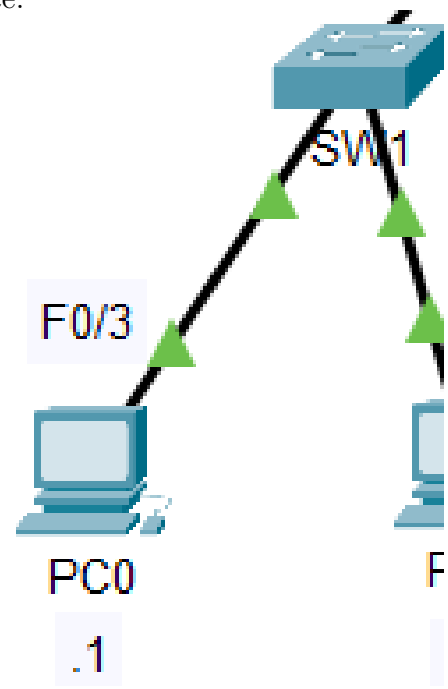
- **Viewing** SW1's interface (Same command as router): `show ip interface brief`

```
SW1#show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
FastEthernet0/1        unassigned      YES manual down                  down
FastEthernet0/2        unassigned      YES manual up                    up
FastEthernet0/3        unassigned      YES manual up                    up
FastEthernet0/4        unassigned      YES manual up                    up
FastEthernet0/5        unassigned      YES manual down                  down
FastEthernet0/6        unassigned      YES manual down                  down
FastEthernet0/7        unassigned      YES manual down                  down
FastEthernet0/8        unassigned      YES manual down                  down
FastEthernet0/9        unassigned      YES manual down                  down
FastEthernet0/10       unassigned      YES manual down                  down
```

- None of the interfaces have no **IP Assignment** because a **Switch is a Layer 2 Device** while IP Address is a **Layer 3 Addressing**.
  - There are reasons to assign IP Addresses to Switch's interfaces, but

that comes later.

- **Router vs. Switch Interfaces**:
  - **Router** interfaces have the `shutdown` command applied by default (*`administratively down/down`* State)
  - **Switch** interfaces **DO NOT** have the `shutdown` command applied by default.
    * Will be in the *`up/up`* state if connected to another device.
    * Will be in the *`down/down`* state if **NOT** connected to another device.




```
FastEthernet0/3        unassigned      YES manual up                    up
```

- **View Speed and Duplex of each interface** via `show interfaces status`

```
SW1#show interfaces status
Port      Name               Status       Vlan       Duplex  Speed Type
Fa0/1                        notconnect   1          auto    auto  10/100BaseTX
Fa0/2                        connected    1          auto    auto  10/100BaseTX
Fa0/3                        connected    1          auto    auto  10/100BaseTX
Fa0/4                        connected    1          auto    auto  10/100BaseTX
Fa0/5                        notconnect   1          auto    auto  10/100BaseTX
Fa0/6                        notconnect   1          auto    auto  10/100BaseTX
Fa0/7                        notconnect   1          auto    auto  10/100BaseTX
Fa0/8                        notconnect   1          auto    auto  10/100BaseTX
Fa0/9                        notconnect   1          auto    auto  10/100BaseTX
Fa0/10                       notconnect   1          auto    auto  10/100BaseTX
Fa0/11                       notconnect   1          auto    auto  10/100BaseTX
Fa0/12                       notconnect   1          auto    auto  10/100BaseTX
Fa0/13                       notconnect   1          auto    auto  10/100BaseTX
```

  - **Name**: Description of an interface.
  - **Status**: *Connected* or *Not Connected*
  - **VLAN**: Will be covered later.
  - **Duplex**: Direction of sending/receiving data.
  - **Speed**: Depend on the **Speed of the slower of the two** (The interface *vs.* The device connecting to that interface).
    * eg: **10 Mbps** device connecting to the **100 Mbps** port will make

the communication speed of this conncetion = **10 Mbps**.

- **Type**: `10` (**Ethernet**, Slower than **Fa**) and `100` (**Fast Ethernet** or **Fa**)
  - No `1000` or `10G` since these are **Fa** (**Fast Ethernet**) interfaces an not **G** (**Gigabit Ethernet**)