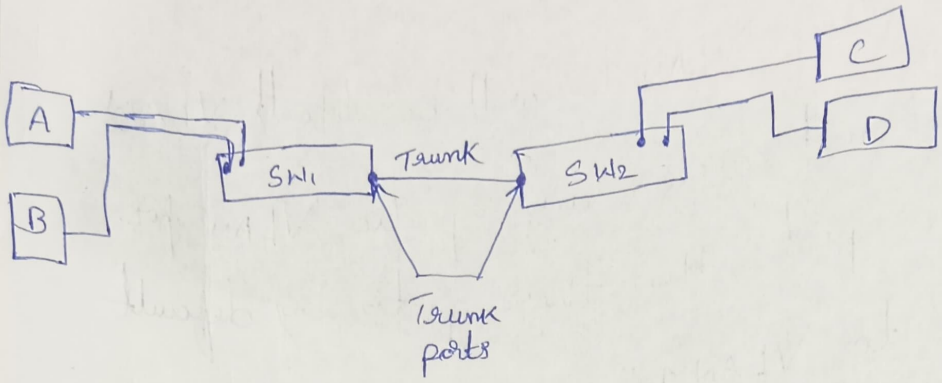
default VLAN : VLAN 1 will be default VLAN. if we haven't assign any specific VLAN for any access port, then those ports by default belongs to VLAN 1.

① 
→ We Cannot Change the default VLAN
→ We Cannot even ~~del~~ delete the default VLAN.
→ It's default settings is VLAN 1.

② VLAN 1 is never intended to be used as a standard data VLAN.

# NATIVE VLAN:



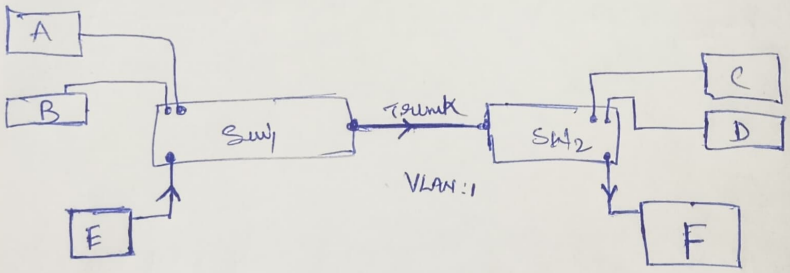

→ A native VLAN is a special VLAN whose traffic traverses on a the 802.1q trunk without a VLAN tag.

→ The native VLAN and management VLAN could be the same, but a good security practice is they are not.

→ By default Native VLAN is VLAN 1, but we can change it to any number.

→ It can be Configured on the trunk port.

→ Best Security practice is to change the native VLAN 1 to other VLAN.




In this case E & F are added ~~red~~ newly as there is no VLAN assignment, E & F belongs to Native VLAN.

So, when device "E" is sending a packet ~~to~~ to device "F" the data will be flowing through the trunk without VLAN Tag.

## Why NATIVE VLAN:

(1) Native VLAN is one concept defined in 802.1Q standard that are created for backward compatibility with old devices that does not support VLAN's

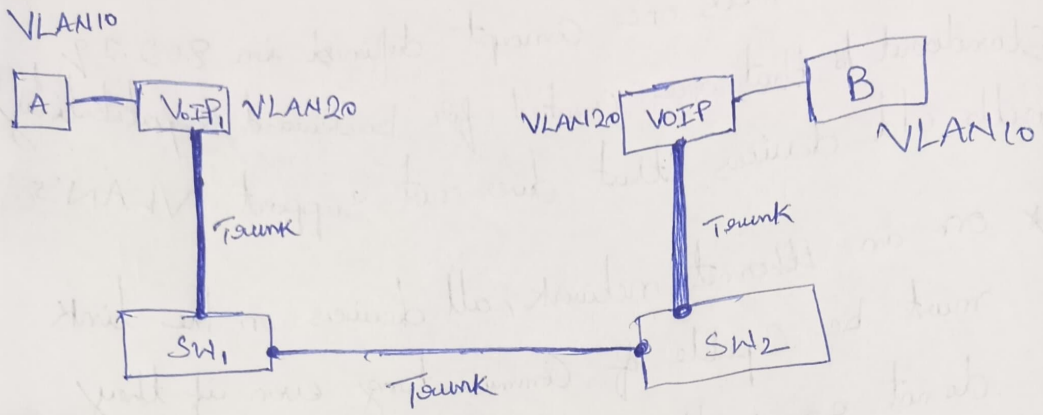
* on an Ethernet network, all devices on the link must be capable of communicating even if they do not speak the 802.1Q protocol.

(2) The native VLAN is used by the switch to carry specific control & mangment protocol traffic like Cisco discovery protocol (CDP), VLAN trunking protocol (VTP), Spanning tree protocol (STP) or some other network management traffic.

* This type of control traffic does not need any VLAN tag to cross over the trunk.
* The idea behind the native VLAN is that some network traffic still flows over the whole switched network, even when trunk or trunking fails.

(3) The native VLAN is also ~~used~~, useful when we deal with voice over I.P (or) VoIP.

## Ex: A Native VLAN Example




→ A & B are in VLAN 10.

→ A & B expects untagged traffic.

→ $VoIP_1$ & $VoIP_2$ Sends & Expects tagged traffic.

→ Now native VLAN is used in this situation.
if we Configure VLAN 10 as native VLAN.
then, which means data traffic from VLAN 10 would travel without any VLAN tag.

Data flow from host : A : B

A ⟶ $VoIP_1$ → $SW_1$ → $SW_2$ → $VoIP_2$ → B

untagged — untagged

---

Data/voice flow from host $VoIP_1$ → $VoIP_2$

$VoIP_1$ ⟶ SW1 → $SW_2$ ⟶ $VoIP_2$

tagged — tagged