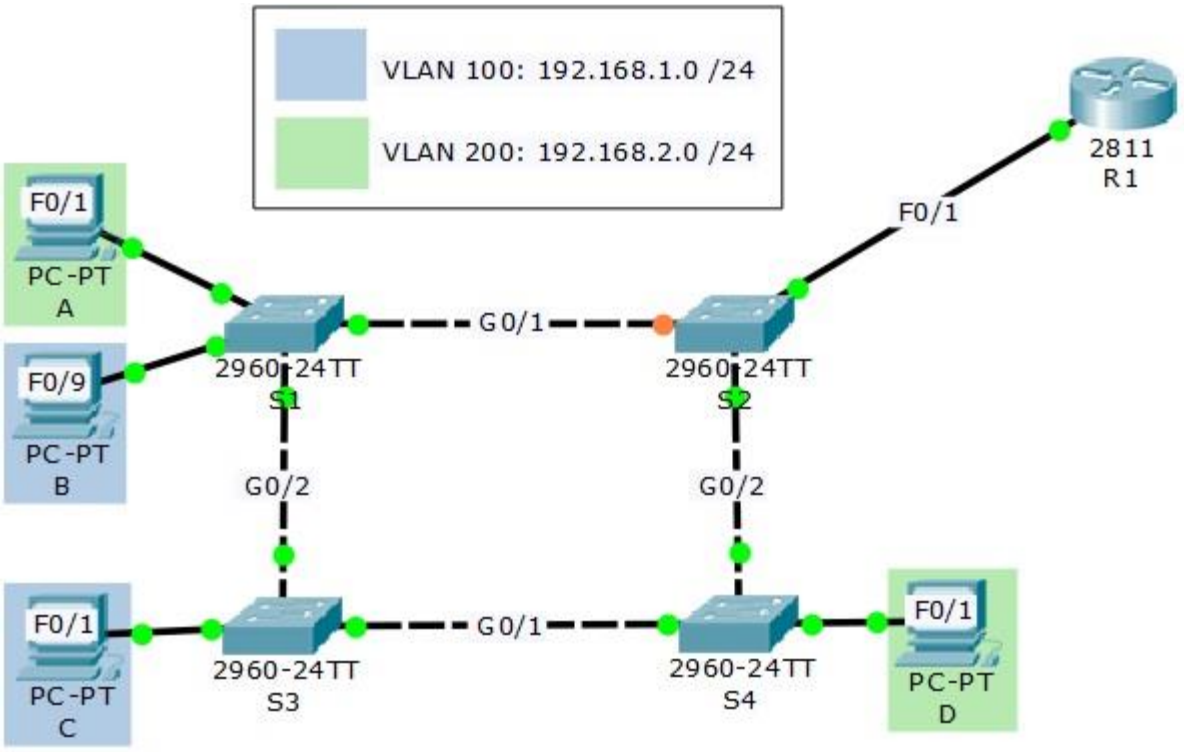
Goal. Recreate the diagram below and configure the following:

1. Hostname according to the diagram and a banner on R1 with your name.
2. Access interfaces and VLANs – 8 interfaces per VLAN.
3. Trunk interfaces.
4. Make sure to create all VLANs on all switches.
5. Configure R1 as a ”Router-on-a-stick“, with a DHCP server for both VLANs.
6. IP addresses on PCs using DHCP.



1. Hostname, banner

Router(config)#hostname R1

R1(config)#banner motd #Cyber Quince#

2. Access mode and VLANs

```
S1(config)#interface range FastEthernet 0/1-8
S1(config-if-range)#switchport mode access
S1(config-if-range)#switchport access vlan 200

S1(config)#interface range FastEthernet 0/9-16
S1(config-if-range)#switchport mode access
S1(config-if-range)#switchport access vlan 100
% Access VLAN does not exist. Creating vlan 100
```

3. Trunk

```
S3(config)#interface range GigabitEthernet 0/1-2
S3(config-if-range)#switchport mode trunk
```

S2-R1 link:

```
S2(config)#interface FastEthernet 0/1
S2(config-if)#switchport mode trunk
```

4. Creating VLANs on switches

```
S2(config)#vlan 100
S2(config)#vlan 200
```

5. Router on a stick

```
R1(config)#interface FastEthernet 0/1
R1(config-if)#no shutdown

R1(config)#interface FastEthernet 0/1.100
R1(config-subif)#encapsulation dot1Q 100
R1(config-subif)#ip address 192.168.1.1 255.255.255.0

R1(config)#interface FastEthernet 0/1.200
R1(config-subif)#encapsulation dot1Q 200
R1(config-subif)#ip address 192.168.2.1 255.255.255.0
```

DHCP server on R1

```
R1(config)#ip dhcp excluded-address 192.168.1.0 192.168.1.10
R1(config)#ip dhcp excluded-address 192.168.2.0 192.168.2.10

R1(config)#ip dhcp pool Vlan100
R1(dhcp-config)#network 192.168.1.0 255.255.255.0
R1(dhcp-config)#default-router 192.168.1.1

R1(config)#ip dhcp pool Vlan200
R1(dhcp-config)#network 192.168.2.0 255.255.255.0
R1(dhcp-config)#default-router 192.168.2.1
```

6. PC IP addresses