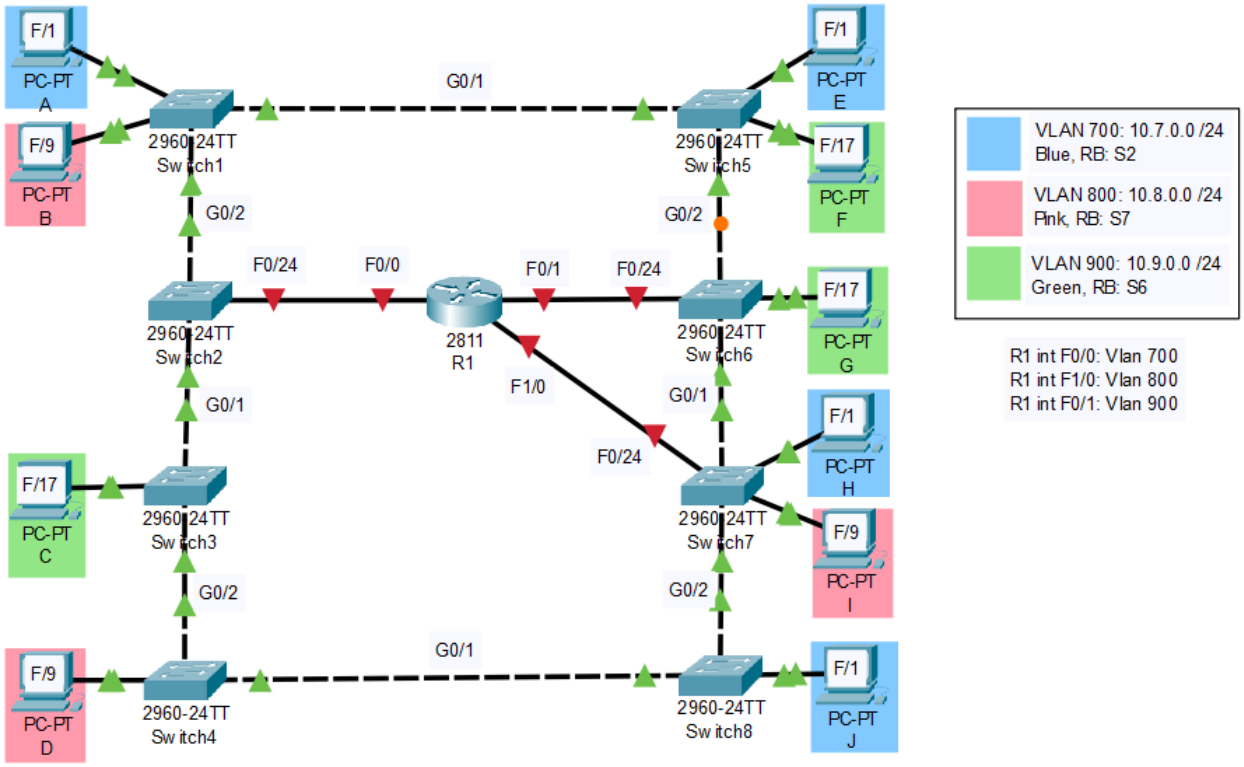
Goal. Use the provided PKT file and configure the following:

1. Hostname according to the diagram + Rapid PVST on all switches.
2. Access interfaces and VLANs – 8 interfaces per VLAN + PortFast.
3. Trunk interfaces.
4. Configure Root switches according to the diagram.
5. VTP: S7 is the server, all others are clients.
6. Router on a stick according to the diagram.
7. IP addresses on PCs: DHCP server on R1 for all VLANs.



Note: To get the FastEthernet1/0 on R1, add this module: „NM-1FE-TX".

1. Hostname and Rapid-PVST

```
Switch(config)#hostname S1

S1(config)#spanning-tree mode rapid-pvst
```

2. Access + PortFast

```
S1(config)#interface range FastEthernet 0/1-8
S1(config-if-range)#switchport mode access
S1(config-if-range)#switchport access vlan 700
S1(config-if-range)#spanning-tree portfast

S1(config)#interface range FastEthernet 0/9-16
S1(config-if-range)#switchport mode access
S1(config-if-range)#switchport access vlan 800
```

```
S1(config-if-range)#spanning-tree portfast

S1(config)#interface range FastEthernet 0/17-23
S1(config-if-range)#switchport mode access
S1(config-if-range)#switchport access vlan 900
S1(config-if-range)#spanning-tree portfast
```

3. Trunk

```
S1(config)#interface range GigabitEthernet 0/1-2
S1(config-if-range)#switchport mode trunk
```

4. Root Bridge

```
S2(config)# spanning-tree vlan 700 root primary
S7(config)# spanning-tree vlan 800 root primary
S6(config)# spanning-tree vlan 900 root primary
```

5. VTP

```
S7(config)#vtp mode server
S7(config)#vtp domain Cyber
S7(config)#vtp password cyber
```

Create VLANs, name them according to the diagram:

```
S7(config)#vlan 700
S7(config-vlan)#name Blue

S7(config)#vlan 800
S7(config-vlan)#name Pink

S7(config)#vlan 900
S7(config-vlan)#name Green
```

Client switches:

```
S(config)#vtp mode client
S(config)#vtp password cyber
```

7. Router on a stick

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

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

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

R1(config)#interface FastEthernet 0/0.700
R1(config-subif)#encapsulation dot1Q 700
R1(config-subif)#ip address 10.7.0.1 255.255.255.0

R1(config)#interface FastEthernet 0/1.900
R1(config-subif)#encapsulation dot1Q 900
R1(config-subif)#ip address 10.9.0.1 255.255.255.0

R1(config)#interface FastEthernet 1/0.800
R1(config-subif)#encapsulation dot1Q 800
R1(config-subif)#ip address 10.8.0.1 255.255.255.0
```

6. DHCP

```
R1(config)#ip dhcp pool Vlan700
R1(dhcp-config)#network 10.7.0.0 255.255.255.0
R1(dhcp-config)#default-router 10.7.0.1

R1(config)#ip dhcp pool Vlan800
R1(dhcp-config)#network 10.8.0.0 255.255.255.0
R1(dhcp-config)#default-router 10.8.0.1

R1(config)#ip dhcp pool Vlan900
R1(dhcp-config)#network 10.9.0.0 255.255.255.0
R1(dhcp-config)#default-router 10.9.0.1
```