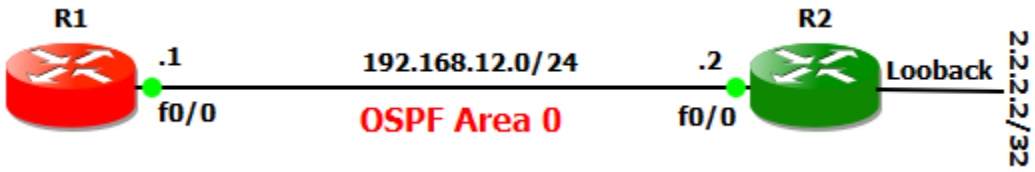
OSPF Basic Configuration:

OSPF Protocols use wildcard mask, which is 32 bits long. It is inverted of subnet masks, with the zero bits indicating that the corresponding bit position must match the same bit position in the IP address. The one bit indicate that the corresponding bit position does not have to match the bit position in the IP address.



Neighbor Configuration:

To make two OSPF routers neighbors, simple enable OSPF on the connected interfaces. There are two ways, by using the network command or by enabling the OSPF process on the interface directly. OSPF Neighbor Requirements are mention below:

- The devices must be on the same subnet.
- Must not be passive on connected interface.
- The devices must be in the same area.
- The devices hello and dead intervals must match.
- Router IDs must be unique.
- The devices must have the same authentication configuration.

Commands	Description
R1(config)#router ospf 1 R1(config-router)#network 192.168.12.0 0.0.0.255 area 0	Enter OSPF mode choose Process ID 1 Enable OSPF by using network command, wildcard and area 0
R2(config)#interface FastEthernet 0/0 R2(config-if)#ip ospf 1 area 0 R2(config-if)#exit R2(config)#interface loopback 2 R2(config-if)#ip ospf 1 area 0	Enter interface mode of R2 Enable OSPF on this interface area 0 Exit from interface mode Enter loopback interface mode of R2 Enable OPSP on this interface area 0
R1# show ip ospf neighbor	Verify ospf neighbor relationship
R1# show ip ospf interface f0/0	Verify OSPF neighbor relationship
R1# show ip ospf	Verify OSPF process
R1# show ip ospf database	Verify OSPF database
R1# show ip protocols	Verify running protocols on Router
R1# debug ip ospf packet	On debug for OSPF packets
R1# debug ip ospf hello	On Debug for OSPF hello packet