frrouting

Step 1: Configure the remaining interfaces on R2, and R3, R4
Configure the interfaces of the R1, R2, and R3 routers with the IP addresses from the IP table you created (or use the table below). Use **vtysh** on each of the routers to do the configuration. (See Interface Commands under Zebra in the Frr manual.) Don't forget to **write** to memory or your changes will be lost.

VM Subnet	IP Address Subnet	Area
R1(eth1), R2(eth0)	10.10.10.0/29	0
R2(eth1),R3(eth0)	10.10.11.8/30	1
R2(eth2),R4(eth1)	10.10.11.24/30	1
R3(eth1),R4(eth0)	10.10.11.12/30	1
R4(eth2)	10.10.11.16/28	1

Step 2: Verify IP addressing and interfaces
Use the show IP **show** command of **vtysh** to verify that the IP addressing is correct and that the interfaces are active. At this point R1 and R2 as well as R2 and R3, R3 and R4 and R4 and R2 should be able to communicate with each other.

Step 3: Configure Interface on Kali
iface eth0 inet static
address 10.10.10.3
netmask 255.255.255.252
gateway 10.10.10.1

Step 4: DHCPD Server
Assign an address for R4(eth2) from the 10.10.11.16/28 block to later setup a dhcpd server on R4 to provide IP addresses to Linux

Step 5: Turn on OSPF daemon
 On each of the routers R1, R2, R3, R4
cd /etc/frr
vi daemons
change ospfd=no to ospfd=yes and save
systemctl restart frr

Step 6: Configure CN-R1 OSPF in Area 0
sudo su
vtysh
configure terminal
router ospf
advertise networks
network 10.10.10.0/29 area 0
network 10.20.1.0/24 area 0
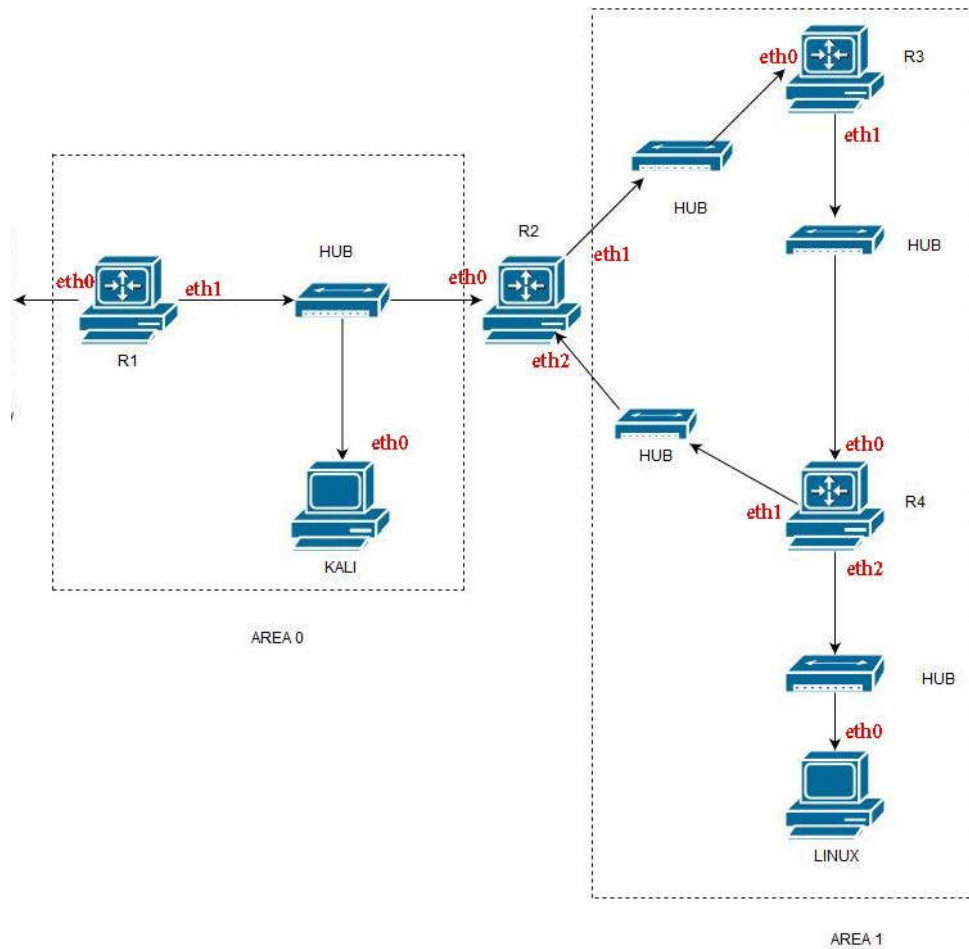
AREA 0

AREA 1

Step 7: Configure CN-R2
sudo su
vtysh
configure terminal
router ospf
advertise networks
network 10.10.10.0/29 area 0
network 10.10.11.0/24 area 1   # route aggregation

Step 8, 9: configure R3 and R4

Do similar actions for R3 and R4 except for R4 do not run OSPF on eth2

(see no passive-interface)

Deliverables:

Show configurations of R1, R2, R3, R4

Show ICMP from R3-> R1, etc

Show wireshark on R1