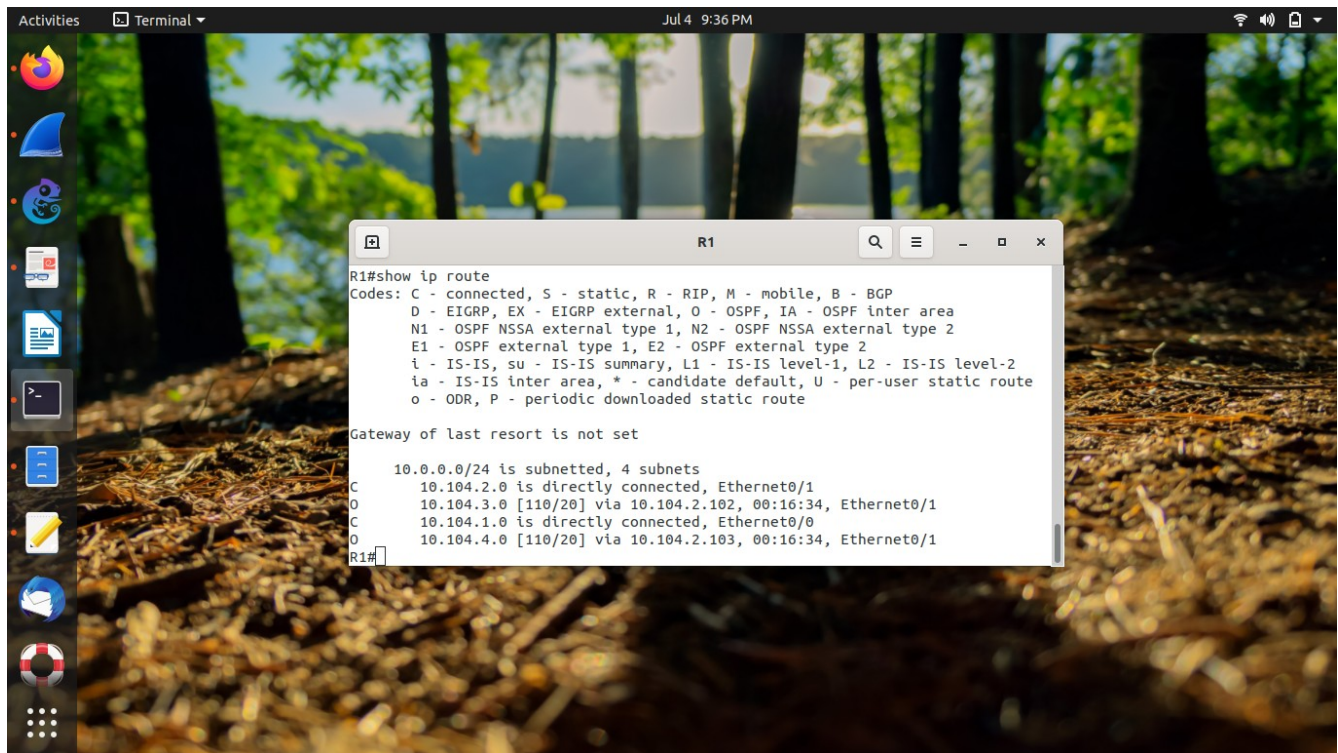


3_a_show-ip-route :-

1) R1 :



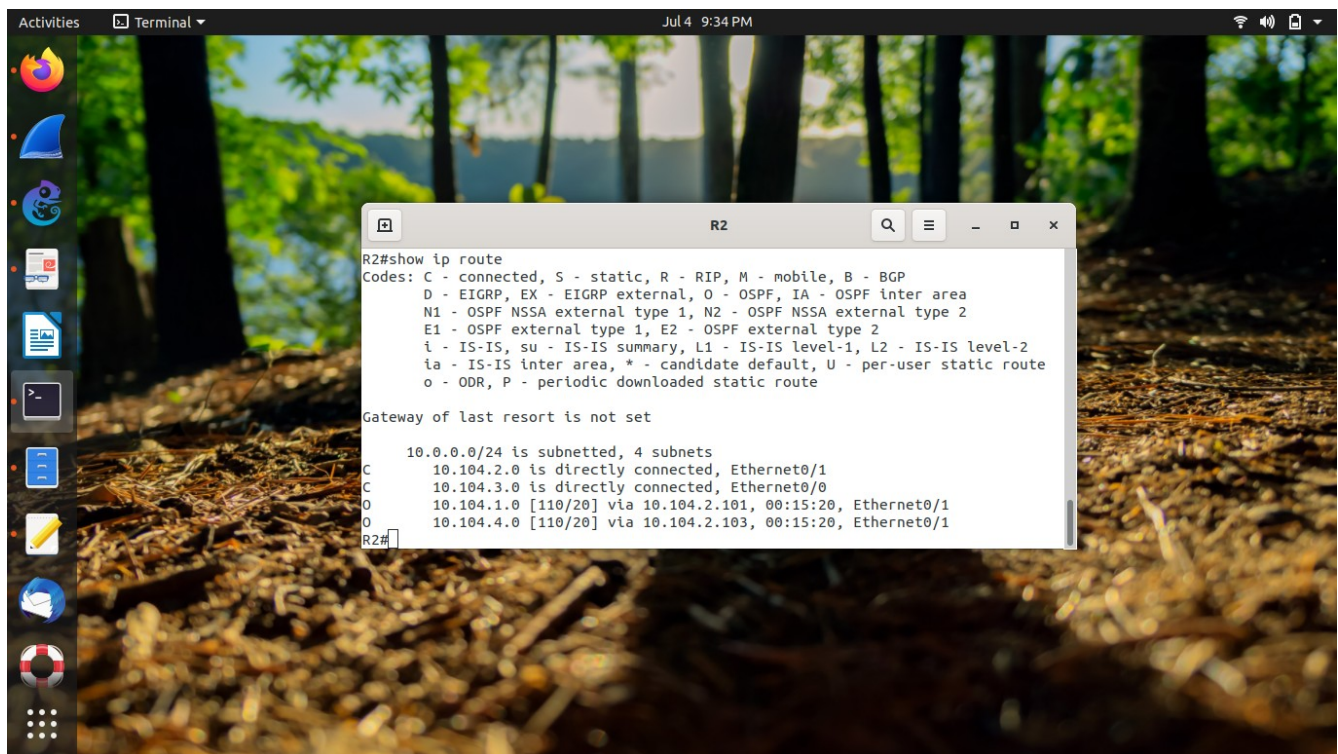
```
Activities Terminal Jul 4 9:36 PM
R1
R1#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 4 subnets
C      10.104.2.0 is directly connected, Ethernet0/1
O      10.104.3.0 [110/20] via 10.104.2.102, 00:16:34, Ethernet0/1
C      10.104.1.0 is directly connected, Ethernet0/0
O      10.104.4.0 [110/20] via 10.104.2.103, 00:16:34, Ethernet0/1
R1#
```

R1 is directly connected to PC1 and switch via 10.104.1.101 and 10.104.2.101.
10.104.3.0 is the network between R2 and PC2, and 10.104.4.0 is the network between R3 and PC3.
Both these are via OSPF packets, along Ethernet0/1.

2) R2 :



The screenshot shows a Linux desktop environment with a terminal window titled 'R2'. The terminal displays the output of the command 'R2#show ip route'. The output includes a legend for route codes, a message about the gateway of last resort, and a list of routes for the 10.0.0.0/24 network. The routes are: 10.104.2.0 (directly connected), 10.104.3.0 (directly connected), 10.104.1.0 (via 10.104.2.101), and 10.104.4.0 (via 10.104.2.103).

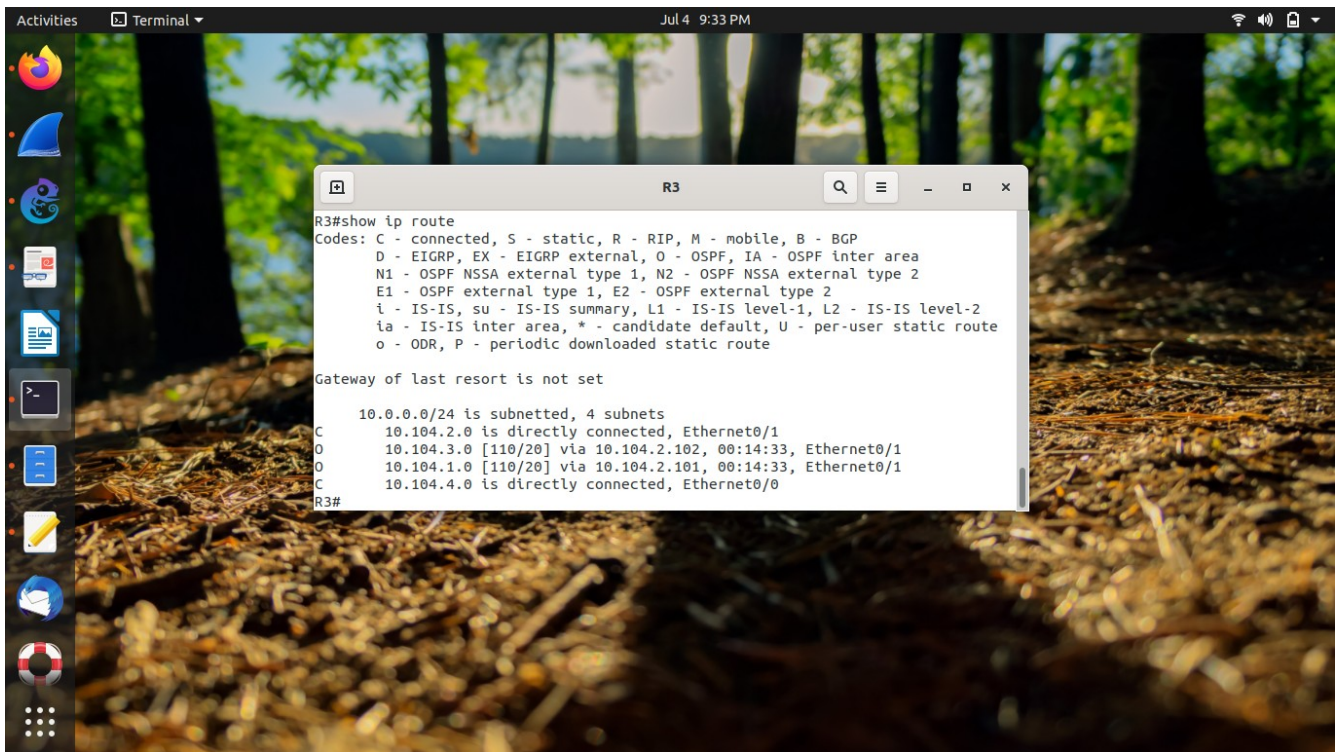
```
R2#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 4 subnets
C      10.104.2.0 is directly connected, Ethernet0/1
C      10.104.3.0 is directly connected, Ethernet0/0
O      10.104.1.0 [110/20] via 10.104.2.101, 00:15:20, Ethernet0/1
O      10.104.4.0 [110/20] via 10.104.2.103, 00:15:20, Ethernet0/1
R2#
```

R2 is directly connected to PC2 and switch via 10.104.3.102 and 10.104.2.102.
10.104.1.0 is the network between R1 and PC1, and 10.104.4.0 is the network between R3 and PC3.
Both these are via OSPF packets, along Ethernet0/1.

3) R3:

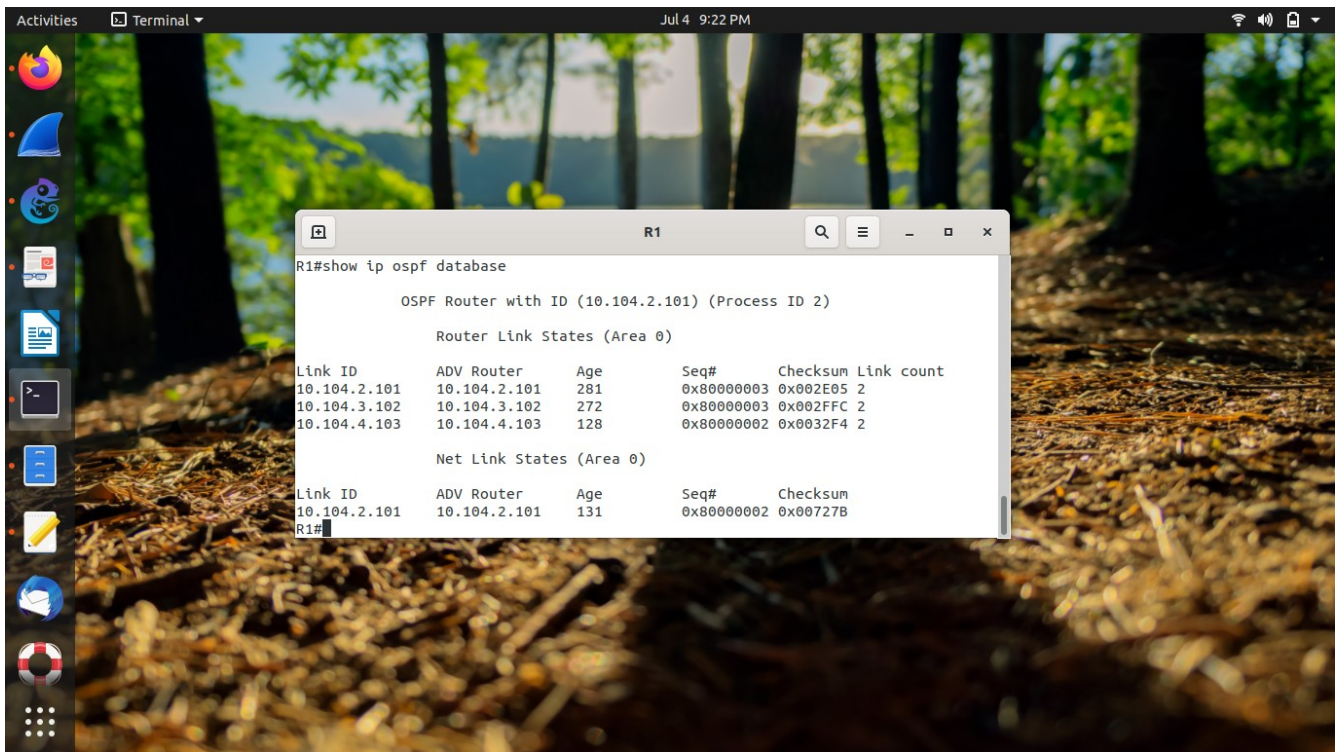


R3 is directly connected to PC3 and switch via 10.104.4.103 and 10.104.2.103.
10.104.3.0 is the network between R2 and PC2, and 10.104.1.0 is the network between R1 and PC1.
Both these are via OSPF packets, along Ethernet0/1.

R4 is entirely absent, as its not being activated.

3_a_routers_LSDB :-

1) R1:



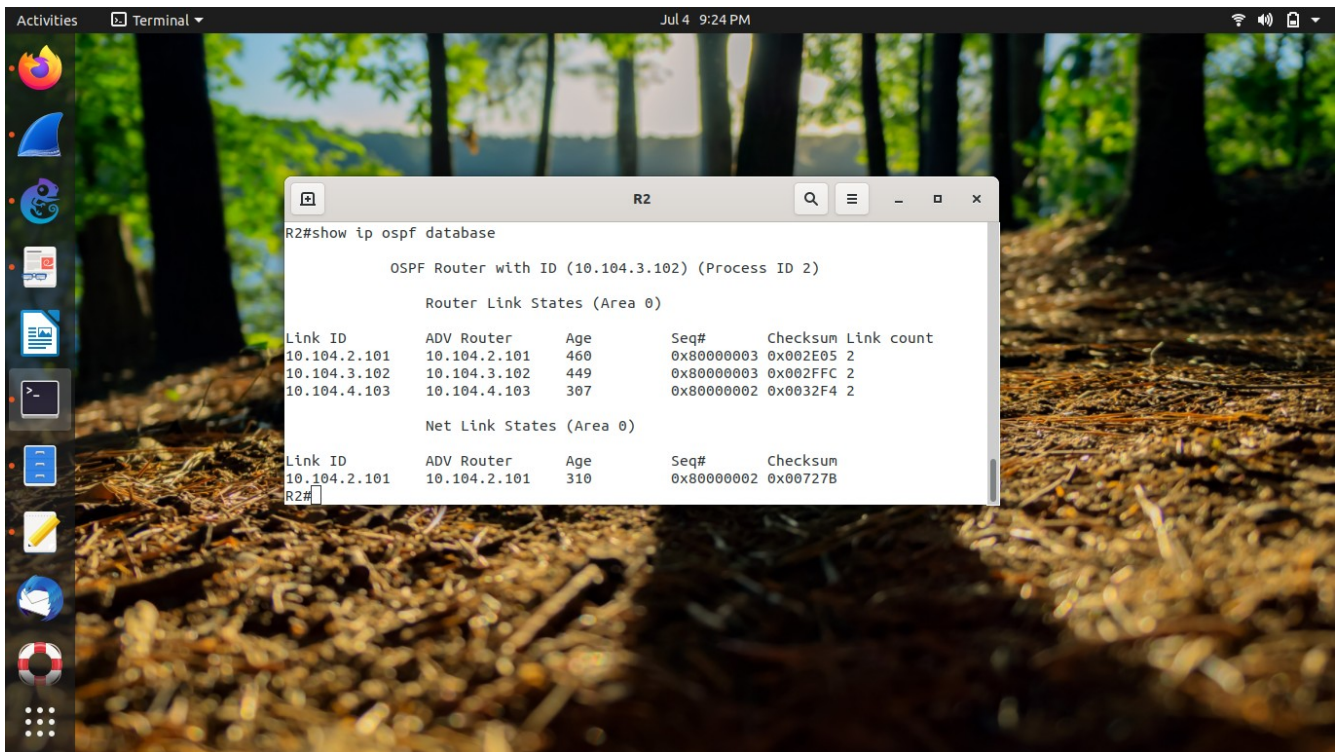
R1 has got the Router id 10.104.2.101.

3 Router link states in area 0 exist- 10.104.2.101(R1), 10.104.3.102(R2), 10.104.4.103(R3).

These are the ids given to routers. Advertisement routers in LSA-type 1 are same as link state id. 2 links for 10.104.2.101 are 10.104.1.0, 10.104.2.0; for 10.104.3.102 are 10.104.2.0, 10.104.3.0; for 10.104.4.103 are 10.104.2.0, 10.104.4.0.

Network type LSA or LSA-type 2 is also there due to multi-access network. 10.104.2.101 is link id and advertising router, showing that this is DR.

2) R2:



R2 has got the Router id 10.104.3.102.

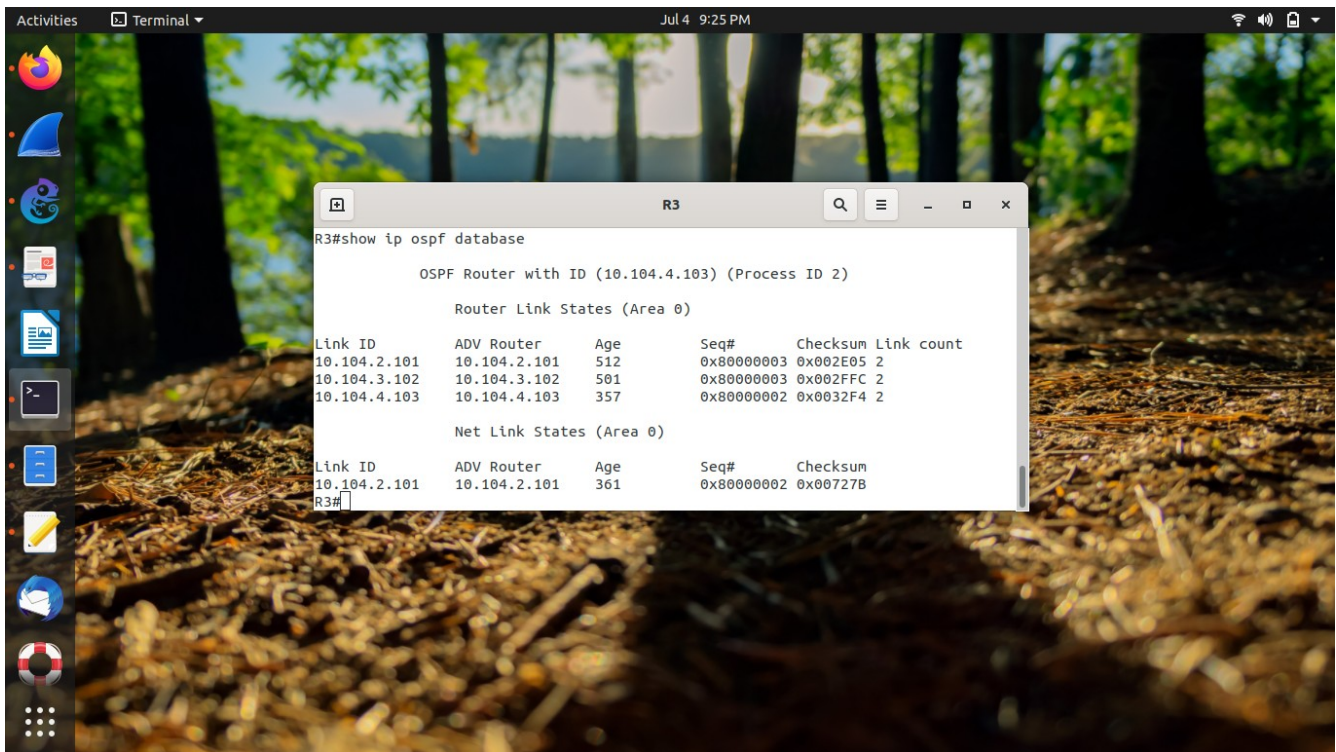
3 Router link states in area 0 exist- 10.104.2.101(R1), 10.104.3.102(R2), 10.104.4.103(R3).

These are the ids given to routers. Advertisement routers in LSA-type 1 are same as link state id. 2 links for 10.104.2.101 are 10.104.1.0, 10.104.2.0; for 10.104.3.102 are 10.104.2.0, 10.104.3.0; for 10.104.4.103 are 10.104.2.0, 10.104.4.0.

Network type LSA or LSA-type 2 is also there due to multi-access network. 10.104.2.101 is link id and advertising router, showing that this is DR.

Note that LSDB of R2 has same entries as R1, except that age is different.

3) R3:



R3 has got the Router id 10.104.4.103.

3 Router link states in area 0 exist- 10.104.2.101(R1), 10.104.3.102(R2), 10.104.4.103(R3).

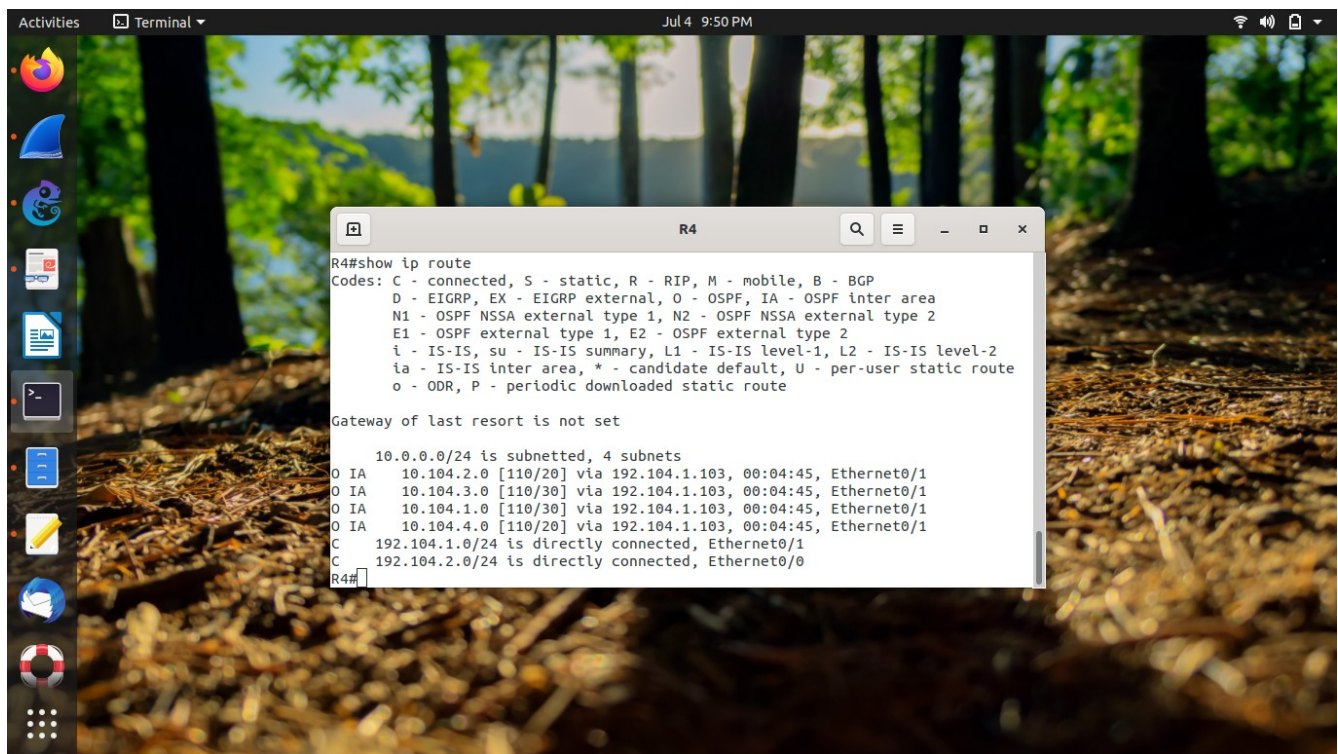
These are the ids given to routers. Advertisement routers in LSA-type 1 are same as link state id. 2 links for 10.104.2.101 are 10.104.1.0, 10.104.2.0; for 10.104.3.102 are 10.104.2.0, 10.104.3.0; for 10.104.4.103 are 10.104.2.0, 10.104.4.0.

Network type LSA or LSA-type 2 is also there due to multi-access network. 10.104.2.101 is link id and advertising router, showing that this is DR.

Age is highest for R3, then R2, then R1.

3 b R4 show ip route :-

1) R1:

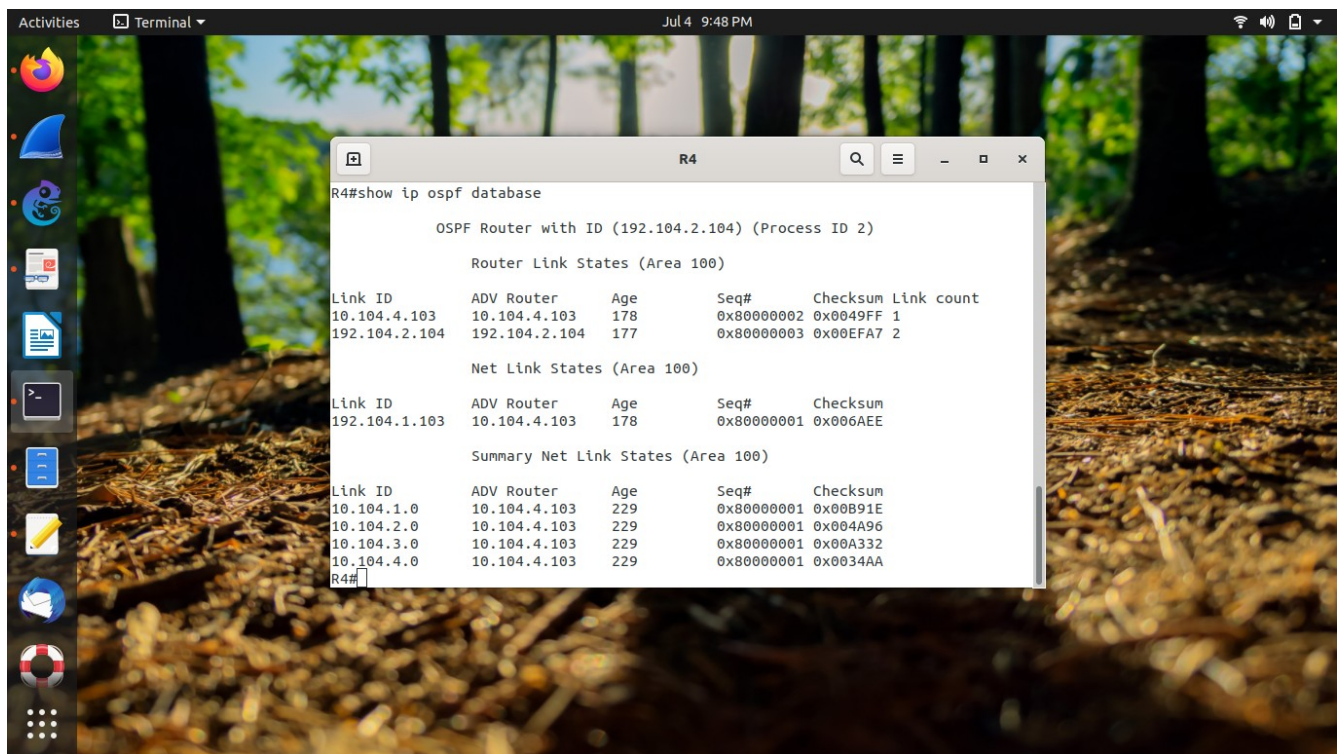


R4 has been enabled. R4 is directly connected to PC4 and R3 via 192.104.2.104 and 192.104.1.104 respectively.

Other networks of 10.104.1.0, 10.104.2.0, 10.104.3.0 and 10.104.4.0 are being told to it via 192.104.1.103(R3), via OSPF (O).

The IA shows that the packets reaching it are Inter-area in nature, or R3 is ABR.

3 b R4 LSDB :-

A screenshot of a Linux desktop environment. The background is a nature-themed wallpaper showing a forest floor with sunlight filtering through the trees. On the left side, there is a vertical dock with various application icons including Firefox, LibreOffice, and a terminal. The top of the screen shows a panel with 'Activities', 'Terminal', and the date/time 'Jul 4 9:48 PM'. A terminal window titled 'R4' is open in the center, displaying the output of the command 'show ip ospf database'. The output shows OSPF Router information for ID 192.104.2.104, followed by Router Link States and Net Link States for Area 100. The Router Link States table shows two entries: one for link ID 10.104.4.103 (age 178) and one for link ID 192.104.2.104 (age 177). The Net Link States table shows one entry for link ID 192.104.1.103 (age 178). Below these, there is a 'Summary Net Link States' section showing four entries for link IDs 10.104.1.0, 10.104.2.0, 10.104.3.0, and 10.104.4.0, all with age 229.

```
R4#show ip ospf database

OSPF Router with ID (192.104.2.104) (Process ID 2)

Router Link States (Area 100)

Link ID        ADV Router    Age         Seq#          Checksum Link count
10.104.4.103   10.104.4.103  178        0x80000002   0x0049FF 1
192.104.2.104  192.104.2.104  177        0x80000003   0x00EFA7 2

Net Link States (Area 100)

Link ID        ADV Router    Age         Seq#          Checksum
192.104.1.103  10.104.4.103  178        0x80000001   0x006AEE

Summary Net Link States (Area 100)

Link ID        ADV Router    Age         Seq#          Checksum
10.104.1.0     10.104.4.103  229        0x80000001   0x00B91E
10.104.2.0     10.104.4.103  229        0x80000001   0x004A96
10.104.3.0     10.104.4.103  229        0x80000001   0x00A332
10.104.4.0     10.104.4.103  229        0x80000001   0x0034AA
R4#
```

Since R4 is in area 100, the router LSAs it will see in its LSDB will be of routers in its area. 192.104.2.104 is Router ID of R4 itself. Advertising router is same as link id. 2 links for R4 are there- 192.104.2.0, 192.104.1.0. 10.104.4.103 is Router ID of ABR R3 given to it in area 100. In area 0, it was 192.104.4.103. 1 link exists for it in this area- 192.104.1.0.

Network LSA or type-2 LSA is there. Link ID is 192.104.1.103, while advertising router is 10.104.4.103. These 2 can be different here.

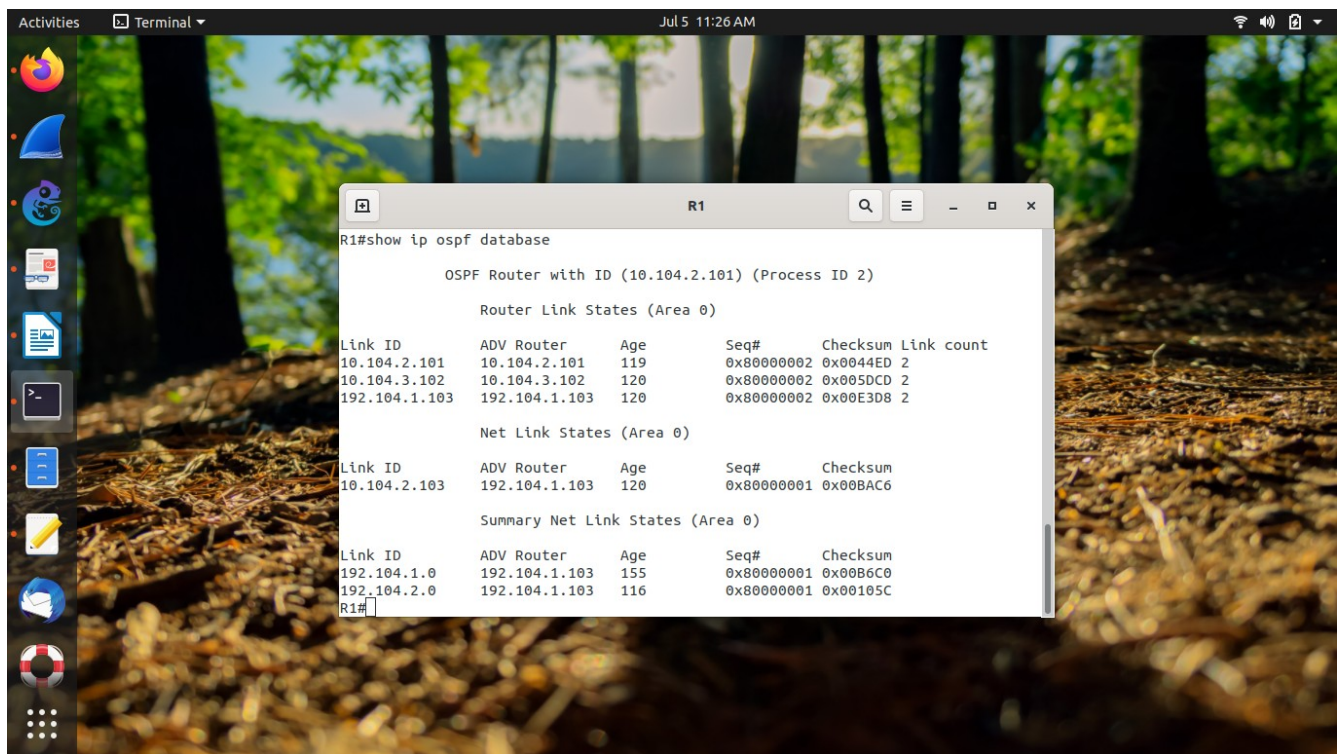
Summary of type-3 LSA is there. Networks in other area are present here, with ABR is ADV Router.

Note that DR changed here to R3.

3_c LSDB :-

(Note: I have restarted the full configuration from start, so, Router IDs and DR might change)

1) R1 :-

A screenshot of a Linux desktop environment. The background is a scenic image of a forest path. On the left, there is a vertical dock with various application icons. In the center, a terminal window titled 'R1' is open, displaying the output of the command 'show ip ospf database'. The output shows OSPF Router information for ID 10.104.2.101, followed by Router Link States (Area 0) and Net Link States (Area 0) tables. The Router Link States table lists three entries with their respective link IDs, advertisement routers, ages, sequence numbers, checksums, and link counts. The Net Link States table lists two entries for network 10.104.2.0/24, both advertised by router 192.104.1.103.

```
R1#show ip ospf database

OSPF Router with ID (10.104.2.101) (Process ID 2)

Router Link States (Area 0)

Link ID        ADV Router    Age      Seq#          Checksum Link count
10.104.2.101   10.104.2.101  119      0x80000002   0x0044ED 2
10.104.3.102   10.104.3.102  120      0x80000002   0x005DCD 2
192.104.1.103  192.104.1.103 120      0x80000002   0x00E3D8 2

Net Link States (Area 0)

Link ID        ADV Router    Age      Seq#          Checksum
10.104.2.103   192.104.1.103 120      0x80000001   0x00BAC6

Summary Net Link States (Area 0)

Link ID        ADV Router    Age      Seq#          Checksum
192.104.1.0    192.104.1.103 155      0x80000001   0x00B6C0
192.104.2.0    192.104.1.103 116      0x80000001   0x00105C
R1#
```

R1 has got the Router id 10.104.2.101.

3 Router link states in area 0 exist- 10.104.2.101(R1), 10.104.3.102(R2), 192.104.1.103(R3).

These are the ids given to routers. Advertisement routers in LSA-type 1 are same as link state id. 2 links for 10.104.2.101 are 10.104.1.0, 10.104.2.0; for 10.104.3.102 are 10.104.2.0, 10.104.3.0; for 192.104.1.103 are 10.104.2.0, 10.104.4.0.

Network type LSA or LSA-type 2 is also there due to multi-access network. 10.104.2.103 is link id and advertising router is 192.104.1.103, showing that this is DR. So, R3 is DR.

Summary or type-3 LSA exist, containing networks of other area. Link ids are 192.104.1.0 and 192.104.2.0, with both having as ADV router as 192.104.1.103.

2) R2:

```
Activities Terminal Jul 5 11:27 AM
R2
R2#show ip ospf database

      OSPF Router with ID (10.104.3.102) (Process ID 2)

      Router Link States (Area 0)

Link ID        ADV Router    Age         Seq#          Checksum Link count
10.104.2.101    10.104.2.101  1813        0x80000002    0x0044ED  2
10.104.3.102    10.104.3.102  1812        0x80000002    0x005DCD  2
192.104.1.103   192.104.1.103 1813        0x80000002    0x00E3D8  2

      Net Link States (Area 0)

Link ID        ADV Router    Age         Seq#          Checksum
10.104.2.103   192.104.1.103 1813        0x80000001    0x00BAC6

      Summary Net Link States (Area 0)

Link ID        ADV Router    Age         Seq#          Checksum
192.104.1.0    192.104.1.103 1848        0x80000001    0x00B6C0
192.104.2.0    192.104.1.103 1809        0x80000001    0x00105C
R2#
```

R2 has got the Router id 10.104.3.102.

3 Router link states in area 0 exist- 10.104.2.101(R1), 10.104.3.102(R2), 192.104.1.103(R3).

These are the ids given to routers. Advertisement routers in LSA-type 1 are same as link state id. 2 links for 10.104.2.101 are 10.104.1.0, 10.104.2.0; for 10.104.3.102 are 10.104.2.0, 10.104.3.0; for 192.104.1.103 are 10.104.2.0, 10.104.4.0.

Network type LSA or LSA-type 2 is also there due to multi-access network. 10.104.2.103 is link id and advertising router is 192.104.1.103, showing that this is DR. So, R3 is DR.

Summary or type-3 LSA exist, containing networks of other area. Link ids are 192.104.1.0 and 192.104.2.0, with both having as ADV router as 192.104.1.103.

3) R3:

```

R3#show ip ospf database

        OSPF Router with ID (192.104.1.103) (Process ID 2)

        Router Link States (Area 0)

Link ID        ADV Router    Age      Seq#          Checksum Link count
10.104.2.101   10.104.2.101  1852     0x80000002   0x0044ED 2
10.104.3.102   10.104.3.102  1853     0x80000002   0x005DCD 2
192.104.1.103  192.104.1.103  1852     0x80000002   0x00E3D8 2

        Net Link States (Area 0)

Link ID        ADV Router    Age      Seq#          Checksum
10.104.2.103   192.104.1.103  1852     0x80000001   0x00BAC6

        Summary Net Link States (Area 0)

Link ID        ADV Router    Age      Seq#          Checksum
192.104.1.0    192.104.1.103  1887     0x80000001   0x00B6C0
192.104.2.0    192.104.1.103  1847     0x80000001   0x00105C

        Router Link States (Area 100)

Link ID        ADV Router    Age      Seq#          Checksum Link count
192.104.1.103  192.104.1.103  1851     0x80000002   0x00D50B 1
192.104.2.104  192.104.2.104  1857     0x80000002   0x00A7EF 2

        Net Link States (Area 100)

Link ID        ADV Router    Age      Seq#          Checksum
192.104.1.104  192.104.2.104  1858     0x80000001   0x00D717

        Summary Net Link States (Area 100)

Link ID        ADV Router    Age      Seq#          Checksum
10.104.1.0     192.104.1.103  1855     0x80000001   0x0062C1
10.104.2.0     192.104.1.103  1898     0x80000001   0x00F23A
10.104.3.0     192.104.1.103  1860     0x80000001   0x004CD5
10.104.4.0     192.104.1.103  1900     0x80000001   0x00DC4E
R3#
R3#

```

R3 has got the Router id 192.104.1.103.

3 Router link states in area 0 exist- 10.104.2.101(R1), 10.104.3.102(R2), 192.104.1.103(R3).

These are the ids given to routers. Advertisement routers in LSA-type 1 are same as link state id. 2 links for 10.104.2.101 are 10.104.1.0, 10.104.2.0; for 10.104.3.102 are 10.104.2.0, 10.104.3.0; for 192.104.1.103 are 10.104.2.0, 10.104.4.0.

Network type LSA or LSA-type 2 for area 0 is also there due to multi-access network. 10.104.2.103 is link id and advertising router is 192.104.1.103, showing that this is DR. So, R3 is DR.

Summary or type-3 LSA for area 0 exist, containing networks of other area. Link ids are 192.104.1.0 and 192.104.2.0, with both having as ADV router as 192.104.1.103.

Since R3 is ABR, so, Router link states for area 100 are also present in its LSDB.

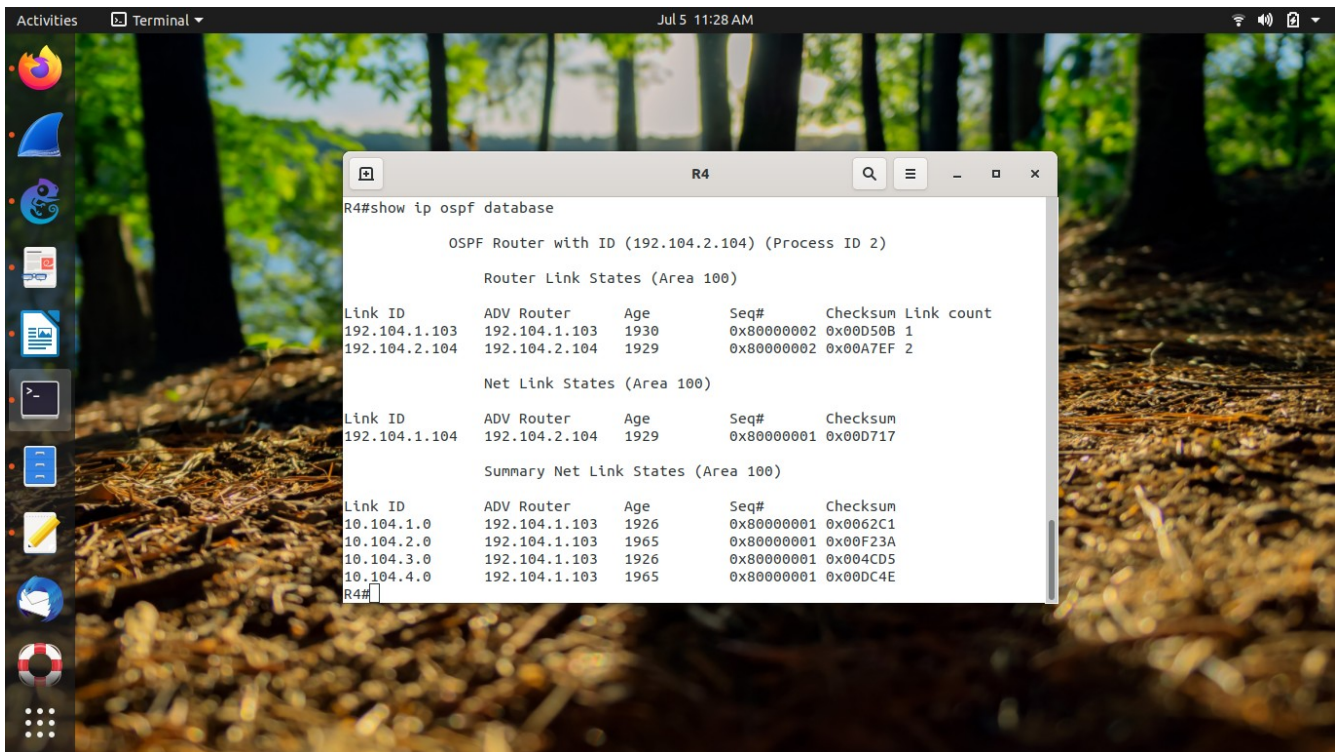
2 Router link states in area 100 exist- 192.104.1.103(R3), 192.104.2.104(R4).

These are the ids given to routers. Advertisement routers in LSA-type 1 are same as link state id. 1 links for 192.104.1.103 is 192.104.1.0; 2 links for 192.104.2.104 are 192.104.2.0, 192.104.1.0.

Network link state for area 100 exists. It has Link id as 192.104.1.104, ADV router as 192.104.2.104. So, R4 is DR in area 100.

Summary or type-3 LSA for area 100 exist, containing networks of other area. Link ids are 10.104.1.0, 10.104.2.0, 10.104.3.0, 10.104.4.0 with all having ADV router as 192.104.1.103.

4) R4:



R4 is in area 100, so all its link states deal with area 100.

2 Router link states in area 100 exist- 192.104.1.103(R3), 192.104.2.104(R4).

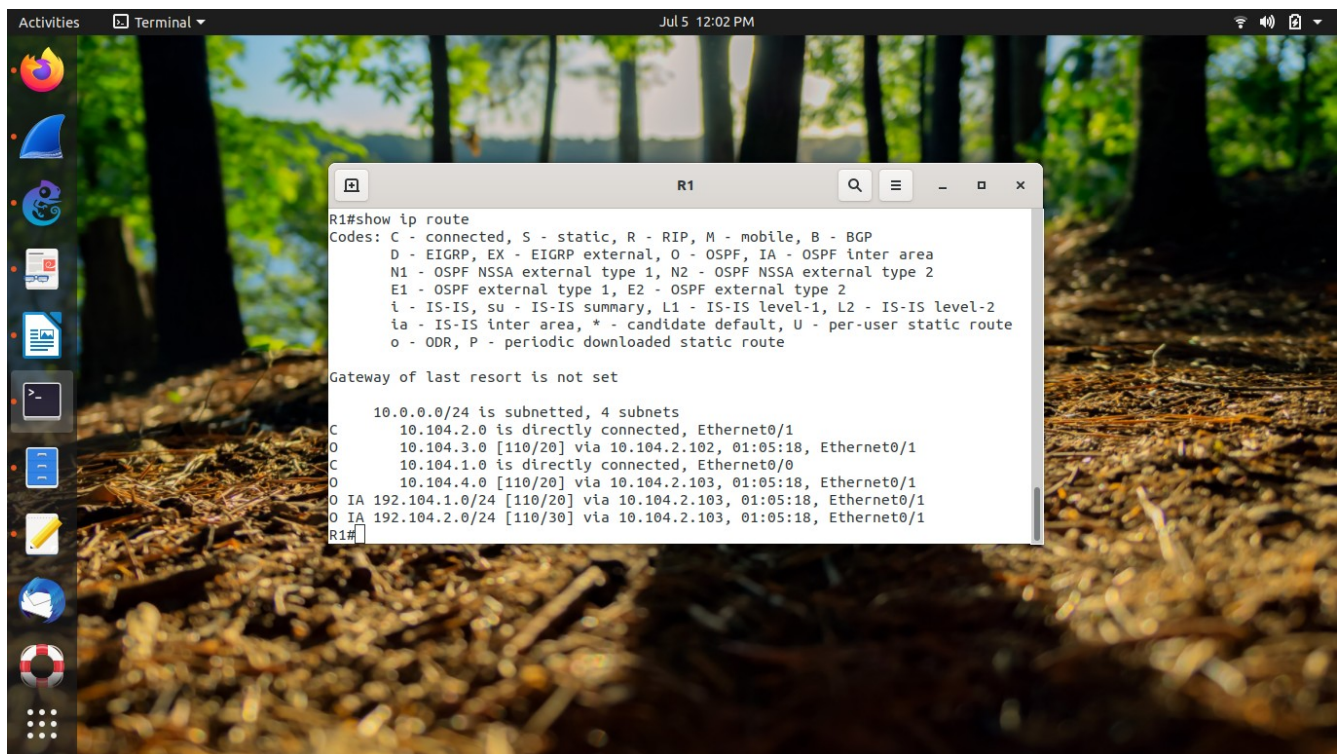
These are the ids given to routers. Advertisement routers in LSA-type 1 are same as link state id. 1 links for 192.104.1.103 is 192.104.1.0; 2 links for 192.104.2.104 are 192.104.2.0, 192.104.1.0.

Network link state for area 100 exists. It has Link id as 192.104.1.104, ADV router as 192.104.2.104. So, R4 is DR in area 100.

Summary or type-3 LSA for area 100 exist, containing networks of other area. Link ids are 10.104.1.0, 10.104.2.0, 10.104.3.0, 10.104.4.0 with all having ADV router as 192.104.1.103.

3 c show ip route :

1) R1:

A screenshot of a Linux desktop environment. The background is a nature scene with trees and a path. On the left is a vertical dock with various application icons. At the top is a panel with 'Activities', 'Terminal', and the date/time 'Jul 5 12:02 PM'. A terminal window titled 'R1' is open in the center, displaying the output of the 'show ip route' command. The output shows OSPF routes for various networks, including 10.0.0.0/24 subnets, 10.104.2.0, 10.104.3.0, 10.104.1.0, 10.104.4.0, and inter-area routes 192.104.1.0/24 and 192.104.2.0/24 via 10.104.2.103.

```
R1#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

    10.0.0.0/24 is subnetted, 4 subnets
C       10.104.2.0 is directly connected, Ethernet0/1
O       10.104.3.0 [110/20] via 10.104.2.102, 01:05:18, Ethernet0/1
C       10.104.1.0 is directly connected, Ethernet0/0
O       10.104.4.0 [110/20] via 10.104.2.103, 01:05:18, Ethernet0/1
O IA   192.104.1.0/24 [110/20] via 10.104.2.103, 01:05:18, Ethernet0/1
O IA   192.104.2.0/24 [110/30] via 10.104.2.103, 01:05:18, Ethernet0/1
R1#
```

R1 is directly connected to PC1 and switch via 10.104.1.101 and 10.104.2.101.
10.104.3.0 is the network between R2 and PC2, and 10.104.4.0 is the network between R3 and PC3.
Both these are via OSPF packets, along Ethernet0/1.
The IA(Inter-area networks) of 192.104.1.0 and 192.104.2.0 are being sent by 10.104.2.103 (R3) via OSPF protocol. So, R3 acts as ABR.

2) R2:

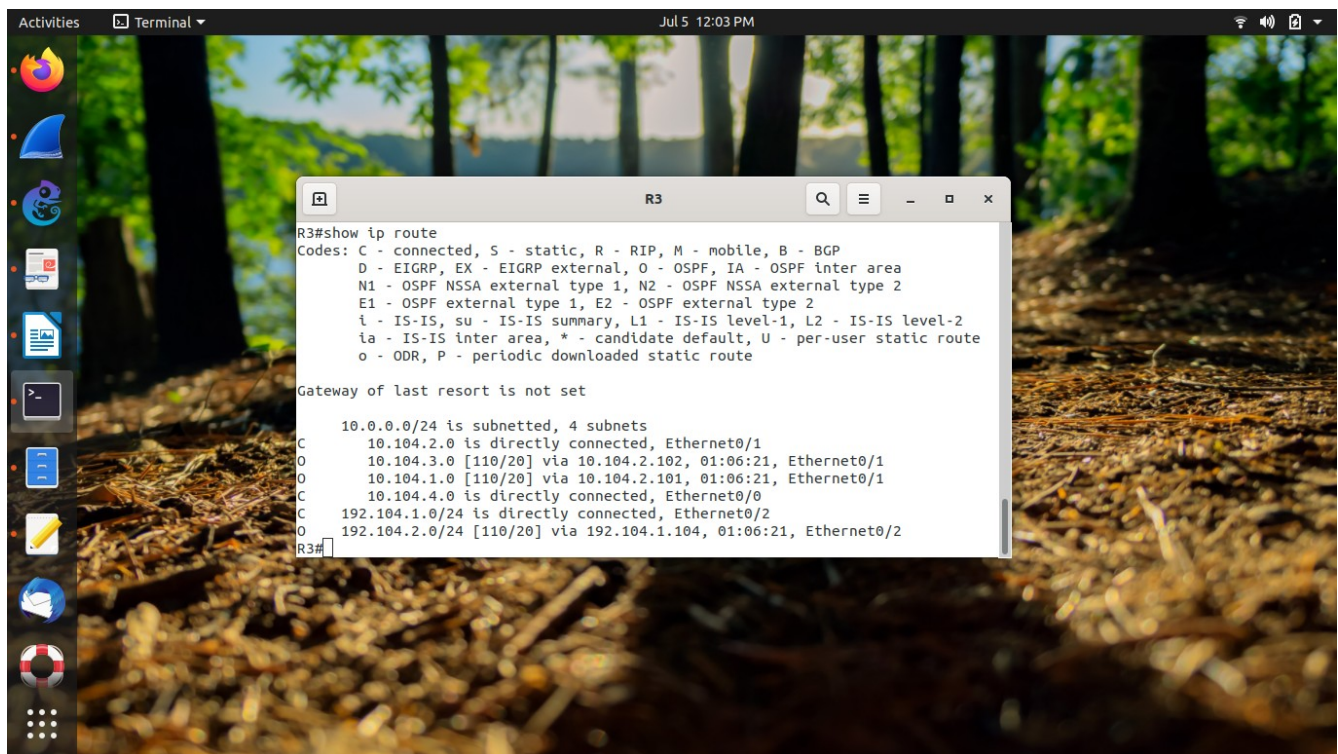
```
R2#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       I - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 4 subnets
C      10.104.2.0 is directly connected, Ethernet0/1
C      10.104.3.0 is directly connected, Ethernet0/0
O      10.104.1.0 [110/20] via 10.104.2.101, 01:05:45, Ethernet0/1
O      10.104.4.0 [110/20] via 10.104.2.103, 01:05:45, Ethernet0/1
O IA   192.104.1.0/24 [110/20] via 10.104.2.103, 01:05:45, Ethernet0/1
O IA   192.104.2.0/24 [110/30] via 10.104.2.103, 01:05:45, Ethernet0/1
R2#
```

R2 is directly connected to PC2 and switch via 10.104.3.102 and 10.104.2.102.
10.104.1.0 is the network between R1 and PC1, and 10.104.4.0 is the network between R3 and PC3.
Both these are via OSPF packets, along Ethernet0/1.
The IA(Inter-area networks) of 192.104.1.0 and 192.104.2.0 are being sent by 10.104.2.103 (R3) via OSPF protocol. So, R3 acts as ABR.

3) R3;



The screenshot shows a Linux desktop environment with a terminal window titled 'R3'. The terminal displays the output of the command 'R3#show ip route'. The output includes a legend for route codes, a message 'Gateway of last resort is not set', and a list of routes. The routes are categorized by their source: 10.0.0.0/24 is subnetted into four subnets; 10.104.2.0 is directly connected to Ethernet0/1; 10.104.3.0 [110/20] is received via 10.104.2.102 on Ethernet0/1; 10.104.1.0 [110/20] is received via 10.104.2.101 on Ethernet0/1; 10.104.4.0 is directly connected to Ethernet0/0; 192.104.1.0/24 is directly connected to Ethernet0/2; and 192.104.2.0/24 [110/20] is received via 192.104.1.104 on Ethernet0/2.

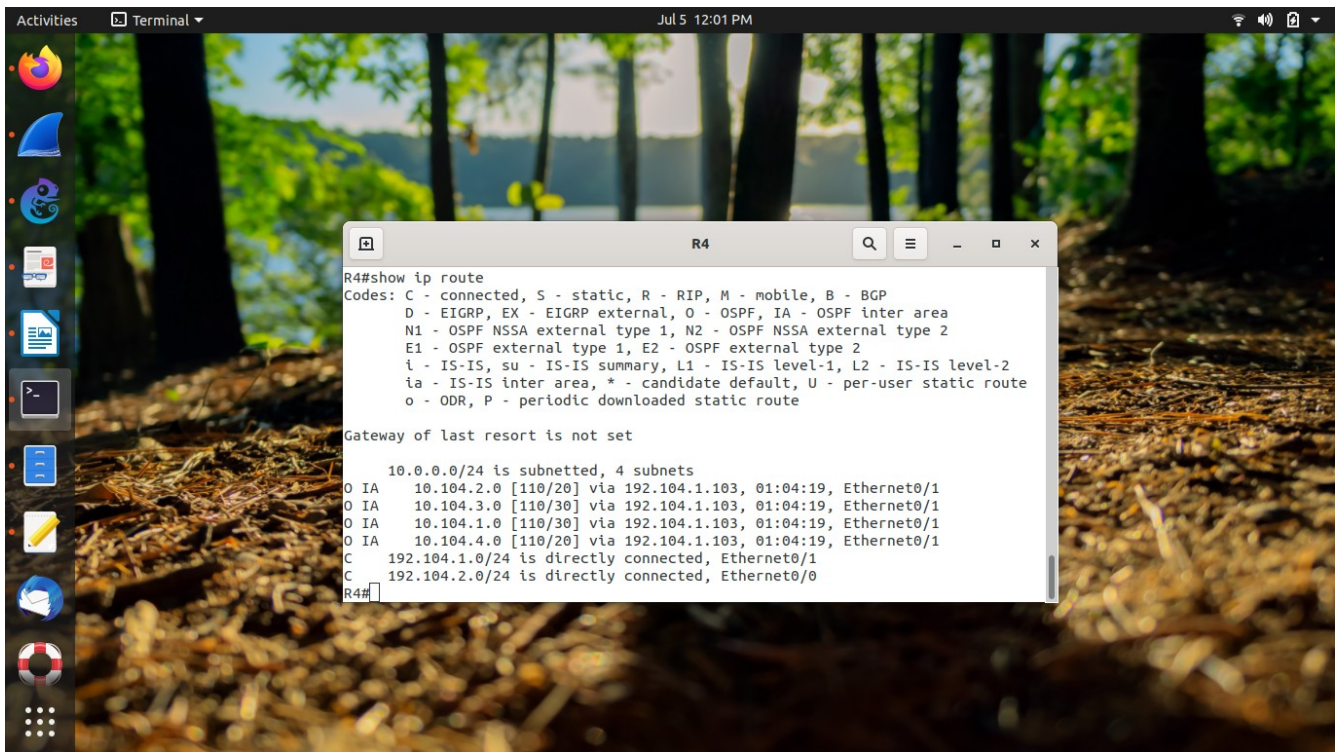
```
R3#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

 10.0.0.0/24 is subnetted, 4 subnets
C      10.104.2.0 is directly connected, Ethernet0/1
O      10.104.3.0 [110/20] via 10.104.2.102, 01:06:21, Ethernet0/1
O      10.104.1.0 [110/20] via 10.104.2.101, 01:06:21, Ethernet0/1
C      10.104.4.0 is directly connected, Ethernet0/0
C     192.104.1.0/24 is directly connected, Ethernet0/2
O     192.104.2.0/24 [110/20] via 192.104.1.104, 01:06:21, Ethernet0/2
R3#
```

R3 is directly connected to PC3 and switch via 10.104.4.103 and 10.104.2.103.
10.104.3.0 is the network between R2 and PC2, and 10.104.1.0 is the network between R1 and PC1.
Both these are via OSPF packets, along Ethernet0/1.
The IA(Inter-area networks) of 192.104.1.0 and 192.104.2.0 are being sent by 10.104.2.103 (R3) via OSPF protocol. So, R3 acts as ABR.

4) R4:



The screenshot shows a Linux desktop with a terminal window titled 'R4'. The terminal displays the output of the 'show ip route' command. The output includes a legend for route codes, a message about the gateway of last resort, and a list of routes. The routes include 10.0.0.0/24 (subnetted), four 10.104.x.x/20 routes (labeled 'O IA'), and two 192.104.x.x/24 routes (labeled 'C').

```
R4#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route

Gateway of last resort is not set

10.0.0.0/24 is subnetted, 4 subnets
O IA  10.104.2.0 [110/20] via 192.104.1.103, 01:04:19, Ethernet0/1
O IA  10.104.3.0 [110/30] via 192.104.1.103, 01:04:19, Ethernet0/1
O IA  10.104.1.0 [110/30] via 192.104.1.103, 01:04:19, Ethernet0/1
O IA  10.104.4.0 [110/20] via 192.104.1.103, 01:04:19, Ethernet0/1
C     192.104.1.0/24 is directly connected, Ethernet0/1
C     192.104.2.0/24 is directly connected, Ethernet0/0
R4#
```

R4 is in area 100. So, 10.104.1.0, 10.104.2.0, 10.104.3.0, 10.104.4.0 are IA networks of area 0 to it, which are being sent to it by the ABR 192.104.1.103, which R3's Router ID in area 100. OSPF is used for this.

R3 and PC4 are directly connected to it via 192.104.1.104 and 192.104.2.104 respectively.