Network Engineering 2019 Exercises - Unit 3

0.1   Netmask Calculation

What is the netmask for this network?

> 91.4.0.0/14

Put your answer on a single line in `unit3/answers.txt`, with 1680: at the beginning of the line, e.g., `1680:255.255.255.0`

What is the netmask for this network?

> 17.90.204.0/22

Put your answer on a single line in `unit3/answers.txt`, with 1681: at the beginning of the line, e.g., `1681:255.255.255.0`

What is the netmask for this network?

> 72.0.0.0/8

Put your answer on a single line in `unit3/answers.txt`, with 1682: at the beginning of the line, e.g., `1682:255.255.255.0`

What is the netmask for this network?

> 59.32.0.0/11

Put your answer on a single line in `unit3/answers.txt`, with 1683: at the beginning of the line, e.g., `1683:255.255.255.0`

What is the netmask for this network?

> 6.182.0.0/15

Put your answer on a single line in `unit3/answers.txt`, with 1684: at the beginning of the line, e.g., `1684:255.255.255.0`

What is the netmask for this network?

> 100.75.132.0/22

Put your answer on a single line in `unit3/answers.txt`, with 1685: at the beginning of the line, e.g., `1685:255.255.255.0`

What is the netmask for this network?

> 109.57.55.128/26

Put your answer on a single line in `unit3/answers.txt`, with 1686: at the beginning of the line, e.g., `1686:255.255.255.0`

What is the netmask for this network?

87.227.128.0/17

Put your answer on a single line in `unit3/answers.txt`, with 1687: at the beginning of the line, e.g., `1687:255.255.255.0`

What is the netmask for this network?

26.47.8.0/21

Put your answer on a single line in `unit3/answers.txt`, with 1688: at the beginning of the line, e.g., `1688:255.255.255.0`

What is the netmask for this network?

64.249.104.64/26

Put your answer on a single line in `unit3/answers.txt`, with 1689: at the beginning of the line, e.g., `1689:255.255.255.0`

What is the netmask for this network?

46.28.80.0/23

Put your answer on a single line in `unit3/answers.txt`, with 1690: at the beginning of the line, e.g., `1690:255.255.255.0`

What is the netmask for this network?

14.200.27.212/31

Put your answer on a single line in `unit3/answers.txt`, with 1691: at the beginning of the line, e.g., `1691:255.255.255.0`

What is the netmask for this network?

3.224.0.0/11

Put your answer on a single line in `unit3/answers.txt`, with 1692: at the beginning of the line, e.g., `1692:255.255.255.0`

What is the netmask for this network?

22.27.0.0/16

Put your answer on a single line in `unit3/answers.txt`, with 1693: at the beginning of the line, e.g., `1693:255.255.255.0`

What is the netmask for this network?

80.119.128.0/22

Put your answer on a single line in `unit3/answers.txt`, with 1694: at the beginning of the line, e.g., `1694:255.255.255.0`

What is the netmask for this network?

48.136.0.0/15

Put your answer on a single line in `unit3/answers.txt`, with 1695: at the beginning of the line, e.g., `1695:255.255.255.0`

What is the netmask for this network?

96.40.0.0/13

Put your answer on a single line in `unit3/answers.txt`, with 1696: at the beginning of the line, e.g., `1696:255.255.255.0`

What is the netmask for this network?

0.0.0.0/3

Put your answer on a single line in `unit3/answers.txt`, with 1697: at the beginning of the line, e.g., `1697:255.255.255.0`

What is the netmask for this network?

4.220.0.0/14

Put your answer on a single line in `unit3/answers.txt`, with 1698: at the beginning of the line, e.g., `1698:255.255.255.0`

What is the netmask for this network?

41.0.0.0/11

Put your answer on a single line in `unit3/answers.txt`, with 1699: at the beginning of the line, e.g., `1699:255.255.255.0`

What is the netmask for this network?

90.58.128.0/22

Put your answer on a single line in `unit3/answers.txt`, with 1700: at the beginning of the line, e.g., `1700:255.255.255.0`

What is the netmask for this network?

85.0.0.0/9

Put your answer on a single line in `unit3/answers.txt`, with 1701: at the beginning of the line, e.g., `1701:255.255.255.0`

What is the netmask for this network?

36.144.173.48/28

Put your answer on a single line in `unit3/answers.txt`, with 1702: at the beginning of the line, e.g., `1702:255.255.255.0`

What is the netmask for this network?

2.0.0.0/7

Put your answer on a single line in `unit3/answers.txt`, with 1703: at the beginning of the line, e.g., `1703:255.255.255.0`

What is the netmask for this network?

125.26.64.0/20

Put your answer on a single line in `unit3/answers.txt`, with 1704: at the beginning of the line, e.g., `1704:255.255.255.0`

What is the netmask for this network?

25.140.0.0/14

Put your answer on a single line in `unit3/answers.txt`, with 1705: at the beginning of the line, e.g., `1705:255.255.255.0`

What is the netmask for this network?

18.49.240.0/22

Put your answer on a single line in `unit3/answers.txt`, with 1706: at the beginning of the line, e.g., `1706:255.255.255.0`

What is the netmask for this network?

5.87.207.0/24

Put your answer on a single line in `unit3/answers.txt`, with 1707: at the beginning of the line, e.g., `1707:255.255.255.0`

What is the netmask for this network?

20.229.64.0/18

Put your answer on a single line in unit3/answers.txt, with 1708: at the beginning of the line, e.g., 1708:255.255.255.0

What is the netmask for this network?

72.0.0.0/10

Put your answer on a single line in unit3/answers.txt, with 1709: at the beginning of the line, e.g., 1709:255.255.255.0

What is the netmask for this network?

88.56.0.0/13

Put your answer on a single line in unit3/answers.txt, with 1710: at the beginning of the line, e.g., 1710:255.255.255.0

What is the netmask for this network?

16.216.0.0/13

Put your answer on a single line in unit3/answers.txt, with 1711: at the beginning of the line, e.g., 1711:255.255.255.0

What is the netmask for this network?

58.117.34.154/0

Put your answer on a single line in unit3/answers.txt, with 1712: at the beginning of the line, e.g., 1712:255.255.255.0

What is the netmask for this network?

97.100.0.0/15

Put your answer on a single line in unit3/answers.txt, with 1713: at the beginning of the line, e.g., 1713:255.255.255.0

What is the netmask for this network?

85.253.238.236/30

Put your answer on a single line in unit3/answers.txt, with 1714: at the beginning of the line, e.g., 1714:255.255.255.0

What is the netmask for this network?

    74.224.0.0/12

Put your answer on a single line in `unit3/answers.txt`, with 1715: at the beginning of the line, e.g., `1715:255.255.255.0`

What is the netmask for this network?

    23.184.241.32/27

Put your answer on a single line in `unit3/answers.txt`, with 1716: at the beginning of the line, e.g., `1716:255.255.255.0`

What is the netmask for this network?

    112.0.0.0/5

Put your answer on a single line in `unit3/answers.txt`, with 1717: at the beginning of the line, e.g., `1717:255.255.255.0`

What is the netmask for this network?

    77.109.0.0/16

Put your answer on a single line in `unit3/answers.txt`, with 1718: at the beginning of the line, e.g., `1718:255.255.255.0`

What is the netmask for this network?

    123.0.0.0/9

Put your answer on a single line in `unit3/answers.txt`, with 1719: at the beginning of the line, e.g., `1719:255.255.255.0`

0.2   Variable Length Sub-net Masking

What is the VLSM name of the network corresponding to the following?

    64.133.123.69 netmask 255.248.0.0

Put your answer on a single line in `unit3/answers.txt`, with 1720: at the beginning of the line, e.g., `1720:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

    117.190.95.152 netmask 255.255.0.0

Put your answer on a single line in `unit3/answers.txt`, with 1721: at the beginning of the line, e.g., `1721:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

60.235.83.164 netmask 252.0.0.0

Put your answer on a single line in unit3/answers.txt, with 1722: at the beginning of the line, e.g., 1722:10.0.0.0/8

What is the VLSM name of the network corresponding to the following?

104.218.25.201 netmask 248.0.0.0

Put your answer on a single line in unit3/answers.txt, with 1723: at the beginning of the line, e.g., 1723:10.0.0.0/8

What is the VLSM name of the network corresponding to the following?

22.137.148.24 netmask 255.255.192.0

Put your answer on a single line in unit3/answers.txt, with 1724: at the beginning of the line, e.g., 1724:10.0.0.0/8

What is the VLSM name of the network corresponding to the following?

55.45.126.240 netmask 255.255.255.255

Put your answer on a single line in unit3/answers.txt, with 1725: at the beginning of the line, e.g., 1725:10.0.0.0/8

What is the VLSM name of the network corresponding to the following?

41.118.111.31 netmask 255.192.0.0

Put your answer on a single line in unit3/answers.txt, with 1726: at the beginning of the line, e.g., 1726:10.0.0.0/8

What is the VLSM name of the network corresponding to the following?

39.44.246.78 netmask 255.255.255.192

Put your answer on a single line in unit3/answers.txt, with 1727: at the beginning of the line, e.g., 1727:10.0.0.0/8

What is the VLSM name of the network corresponding to the following?

     93.224.166.10 netmask 255.255.255.252

Put your answer on a single line in `unit3/answers.txt`, with 1728: at the beginning of the line, e.g., `1728:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

     35.63.226.41 netmask 255.255.255.0

Put your answer on a single line in `unit3/answers.txt`, with 1729: at the beginning of the line, e.g., `1729:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

     18.252.34.221 netmask 240.0.0.0

Put your answer on a single line in `unit3/answers.txt`, with 1730: at the beginning of the line, e.g., `1730:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

     100.23.6.228 netmask 255.255.128.0

Put your answer on a single line in `unit3/answers.txt`, with 1731: at the beginning of the line, e.g., `1731:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

     14.99.231.31 netmask 255.255.255.192

Put your answer on a single line in `unit3/answers.txt`, with 1732: at the beginning of the line, e.g., `1732:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

     102.254.178.118 netmask 255.255.254.0

Put your answer on a single line in `unit3/answers.txt`, with 1733: at the beginning of the line, e.g., `1733:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

87.95.83.42 netmask 192.0.0.0

Put your answer on a single line in `unit3/answers.txt`, with 1734: at the beginning of the line, e.g., `1734:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

38.89.59.193 netmask 255.254.0.0

Put your answer on a single line in `unit3/answers.txt`, with 1735: at the beginning of the line, e.g., `1735:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

118.158.79.112 netmask 255.255.255.128

Put your answer on a single line in `unit3/answers.txt`, with 1736: at the beginning of the line, e.g., `1736:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

106.156.60.64 netmask 255.255.240.0

Put your answer on a single line in `unit3/answers.txt`, with 1737: at the beginning of the line, e.g., `1737:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

23.45.202.31 netmask 255.128.0.0

Put your answer on a single line in `unit3/answers.txt`, with 1738: at the beginning of the line, e.g., `1738:10.0.0.0/8`

What is the VLSM name of the network corresponding to the following?

5.90.74.249 netmask 255.255.254.0

Put your answer on a single line in `unit3/answers.txt`, with 1739: at the beginning of the line, e.g., `1739:10.0.0.0/8`

0.3 Configure Network Interfaces using the ifconfig and ip commands

What is the `ifconfig` command to setup interface eth0 with the following network settings (apply any options in the order listed)?

> 4.90.141.27 netmask 4.0.0.0/9, in promiscuous mode

Put your answer on a single line in `unit3/answers.txt`, with 1740: at the beginning of the line, e.g., `1740:ifconfig moo0 1.2.3.4 netmask 255.0.0.0 -broadcast`

What is `ip` command sequence to setup interface eth0 with the following network settings (apply any options in the order listed)?

> 52.252.112.30 netmask 52.252.112.0/22, TX queue length = 3389

Put your answer on a single line in `unit3/answers.txt`, with 1741: at the beginning of the line, e.g., `1741:ip blah blah; ip again with other options; ip again with yet other options`

What is `ip` command sequence equivalent to the following `ifconfig` command (apply any options in the order listed)?

> ifconfig eth0 45.136.240.95 netmask 255.224.0.0

Put your answer on a single line in `unit3/answers.txt`, with 1742: at the beginning of the line, e.g., `1742:ip blah blah; ip again with other options; ip again with yet other options`

What is `ip` command sequence equivalent to the following `ifconfig` command (apply any options in the order listed)?

> ifconfig eth0 3.128.81.23 netmask 255.128.0.0 -arp

Put your answer on a single line in `unit3/answers.txt`, with 1743: at the beginning of the line, e.g., `1743:ip blah blah; ip again with other options; ip again with yet other options`

What is `ifconfig` command equivalent to the following `ip` command sequence (apply any options in the order listed)?

> ip address add 71.104.104.97/3 dev eth0; ip link set dev eth0 txqueuelen 2961

Put your answer on a single line in `unit3/answers.txt`, with 1744: at the beginning of the line, e.g., `1744:ip blah blah; ip again with other options; ip again with yet other options`

What is the `ifconfig` command to setup interface eth0 with the following network settings (apply any options in the order listed)?

12.224.84.136 netmask 12.0.0.0/6, MTU = 1947

Put your answer on a single line in `unit3/answers.txt`, with 1745: at the beginning of the line, e.g., `1745:ifconfig moo0 1.2.3.4 netmask 255.0.0.0 -broadcast`

What is `ip` command sequence equivalent to the following `ifconfig` command (apply any options in the order listed)?

ifconfig eth0 52.216.179.125 netmask 255.255.255.224 mtu 3258 -arp promisc

Put your answer on a single line in `unit3/answers.txt`, with 1746: at the beginning of the line, e.g., `1746:ip blah blah; ip again with other options; ip again with yet other options`

What is `ifconfig` command equivalent to the following `ip` command sequence (apply any options in the order listed)?

ip address add 3.170.9.42/29 dev eth0; ip link set eth0 down

Put your answer on a single line in `unit3/answers.txt`, with 1747: at the beginning of the line, e.g., `1747:ip blah blah; ip again with other options; ip again with yet other options`

What is `ifconfig` command equivalent to the following `ip` command sequence (apply any options in the order listed)?

ip address add 15.89.207.61/1 dev eth0ip link set dev eth0 mtu 2199

Put your answer on a single line in `unit3/answers.txt`, with 1748: at the beginning of the line, e.g., `1748:ip blah blah; ip again with other options; ip again with yet other options`

What is `ifconfig` command equivalent to the following `ip` command sequence (apply any options in the order listed)?

ip address add 119.223.122.252/26 dev eth0ip link set dev eth0 mtu 3083; ip link set dev eth0 promisc on

Put your answer on a single line in `unit3/answers.txt`, with 1749: at the beginning of the line, e.g., `1749:ip blah blah; ip again with other options; ip again with yet other options`

What is `ip` command sequence equivalent to the following `ifconfig` command (apply any options in the order listed)?

> ifconfig eth0 41.112.2.160 netmask 255.255.255.248

Put your answer on a single line in `unit3/answers.txt`, with 1750: at the beginning of the line, e.g., `1750:ip blah blah; ip again with other options; ip again with yet other options`

What is the `ifconfig` command to setup interface eth0 with the following network settings (apply any options in the order listed)?

> 106.182.52.23 netmask 106.128.0.0/10, PPP remote address 27.141.81.66, in promiscuous mode, TX queue length = 3851

Put your answer on a single line in `unit3/answers.txt`, with 1751: at the beginning of the line, e.g., `1751:ifconfig moo0 1.2.3.4 netmask 255.0.0.0 -broadcast`

What is `ifconfig` command equivalent to the following `ip` command sequence (apply any options in the order listed)?

> ip address add 33.159.129.68/17 dev eth0

Put your answer on a single line in `unit3/answers.txt`, with 1752: at the beginning of the line, e.g., `1752:ip blah blah; ip again with other options; ip again with yet other options`

What is the `ifconfig` command to setup interface eth0 with the following network settings (apply any options in the order listed)?

> 46.15.241.118 netmask 46.0.0.0/11, MTU = 2132, PPP remote address 43.239.188.55, in promiscuous mode

Put your answer on a single line in `unit3/answers.txt`, with 1753: at the beginning of the line, e.g., `1753:ifconfig moo0 1.2.3.4 netmask 255.0.0.0 -broadcast`

What is `ip` command sequence to setup interface eth0 with the following network settings (apply any options in the order listed)?

> 25.111.221.55 netmask 25.111.192.0/18, TX queue length = 2442

Put your answer on a single line in `unit3/answers.txt`, with 1754: at the beginning of the line, e.g., `1754:ip blah blah; ip again with other options; ip again with yet other options`

What is `ip` command sequence to setup interface eth0 with the following network settings (apply any options in the order listed)?

> 75.34.157.148 netmask 74.0.0.0/7, MTU = 644, TX queue length = 4496

Put your answer on a single line in `unit3/answers.txt`, with 1755: at the beginning of the line, e.g., `1755:ip blah blah; ip again with other options; ip again with yet other options`

What is the `ifconfig` command to setup interface eth0 with the following network settings (apply any options in the order listed)?

> 109.135.110.137 netmask 109.135.110.128/28, PPP remote address 16.2.126.123

Put your answer on a single line in `unit3/answers.txt`, with 1756: at the beginning of the line, e.g., `1756:ifconfig moo0 1.2.3.4 netmask 255.0.0.0 -broadcast`

What is the `ifconfig` command to setup interface eth0 with the following network settings (apply any options in the order listed)?

> 126.145.159.251 netmask 126.144.0.0/12, but not running

Put your answer on a single line in `unit3/answers.txt`, with 1757: at the beginning of the line, e.g., `1757:ifconfig moo0 1.2.3.4 netmask 255.0.0.0 -broadcast`

What is the `ifconfig` command to setup interface eth0 with the following network settings (apply any options in the order listed)?

> 114.250.111.231 netmask 114.192.0.0/10, MTU = 4267, PPP remote address 51.79.207.189, TX queue length = 3466

Put your answer on a single line in `unit3/answers.txt`, with 1758: at the beginning of the line, e.g., `1758:ifconfig moo0 1.2.3.4 netmask 255.0.0.0 -broadcast`

What is `ifconfig` command equivalent to the following `ip` command sequence (apply any options in the order listed)?

> ip address add 78.105.127.6/23 dev eth0; ip link set dev eth0 txqueuelen 2860

Put your answer on a single line in `unit3/answers.txt`, with 1759: at the beginning of the line, e.g., `1759:ip blah blah; ip again with other options; ip again with yet other options`

0.4 Configure Network Interfaces using /etc/network/interfaces file

0.4.1 Prepare unit3/iface0-solution.txt

Produce an `interfaces` file in `unit3/iface0-solution.txt`, that contains the following:

- A template called ruins0, that specifies an MTU of 7242 and MAC address F0:EC:F1:33:BC:D8.

- A template called ruins1, that specifies an MTU of 5896 and MAC address 70:F5:21:8E:28:4F.

- An interface named jam0, with IPv4 settings configured by DHCP.

- An interface named ftdi1, with IPv4 address 39.243.129.209 and netmask 255.255.255.240, and inherits the template ruins0.

- An interface named ftdi2, with IPv4 address 109.14.104.115 and netmask 255.255.252.0.

0.4.2 Prepare unit3/iface1-solution.txt

Produce an `interfaces` file in `unit3/iface1-solution.txt`, that contains the following:

- A template called ruins0, that specifies an MTU of 4725 and MAC address A6:3A:BE:43:9E:2E.

- A template called wealth1, that specifies an MTU of 1988 and MAC address BC:60:0F:64:20:14.

- A template called wealth2, that specifies an MTU of 1126 and MAC address 91:35:02:97:70:BE.

- A template called ruins3, that specifies an MTU of 6564 and MAC address 14:77:75:09:EA:F2.

- A template called castle4, that specifies an MTU of 988 and MAC address 2C:AC:D3:CB:DA:0C.

- An interface named ftdi0, with IPv4 address 72.223.137.150 and netmask 255.240.0.0, and inherits the template ruins3.

- An interface named jam1, with IPv4 settings configured by DHCP.

- An interface named eth2, with IPv4 address 15.16.98.214 and netmask 248.0.0.0, and inherits the template castle4.

0.4.3   Prepare unit3/iface2-solution.txt

Produce an `interfaces` file in `unit3/iface2-solution.txt`, that contains the following:

- A template called castle0, that specifies an MTU of 1905 and MAC address 2D:50:40:BE:7D:EC.

- A template called ruins1, that specifies an MTU of 5880 and MAC address C7:9D:D3:5D:0A:6D.

- A template called wealth2, that specifies an MTU of 5595 and MAC address 1B:B7:0A:5B:4C:80.

- A template called ruins3, that specifies an MTU of 5313 and MAC address B4:FD:3A:FD:40:98.

- A template called castle4, that specifies an MTU of 8717 and MAC address E8:8E:2B:65:7B:BD.

- An interface named eth0, with IPv4 address 26.189.120.66 and netmask 255.255.255.192.

- An interface named jam1, with IPv4 address 14.34.193.237 and netmask 255.255.255.0, and inherits the template castle0.

- An interface named ftdi2, with IPv4 address 82.198.157.100 and netmask 255.255.255.224.

- An interface named ftdi3, with IPv4 settings configured by DHCP.

- An interface named eth4, with IPv4 address 44.147.144.30 and netmask 252.0.0.0, and inherits the template castle4.

- An interface named eth5, with IPv4 settings configured by DHCP.

- An interface named wlan6, with IPv4 address 3.97.125.131 and netmask 255.255.255.192.

0.4.4   Prepare unit3/iface3-solution.txt

Produce an `interfaces` file in `unit3/iface3-solution.txt`, that contains the following:

- A template called moths0, that specifies an MTU of 7581 and MAC address 19:E9:F5:14:6F:8A.

- A template called ruins1, that specifies an MTU of 3598 and MAC address 1D:E7:E2:EF:06:69.

- A template called moths2, that specifies an MTU of 1605 and MAC address 7E:9B:79:0E:C3:93.

- An interface named wlan0, with IPv4 settings configured by DHCP.

- An interface named jam1, with IPv4 settings configured by DHCP.

- An interface named wlan2, with IPv4 settings configured by DHCPand inherits the template ruins1.

0.4.5 Prepare unit3/iface4-solution.txt

Produce an `interfaces` file in `unit3/iface4-solution.txt`, that contains the following:

- A template called ruins0, that specifies an MTU of 4966 and MAC address D3:37:5F:02:44:DD.

- A template called ruins1, that specifies an MTU of 1189 and MAC address EB:61:51:CB:A7:7F.

- A template called ruins2, that specifies an MTU of 741 and MAC address 35:D8:E6:7C:AC:E0.

- A template called wealth3, that specifies an MTU of 8416 and MAC address 4A:7E:DE:5E:62:0F.

- A template called wealth4, that specifies an MTU of 461 and MAC address 46:B4:37:8A:91:D5.

- An interface named eth0, with IPv4 settings configured by DHCPand inherits the template ruins0.

- An interface named eth1, with IPv4 address 80.145.139.101 and netmask 255.255.224.0, and inherits the template wealth3.

- An interface named eth2, with IPv4 settings configured by DHCP.

- An interface named ftdi3, with IPv4 address 102.168.82.255 and netmask 255.255.255.240, and inherits the template ruins2.

- An interface named ftdi4, with IPv4 address 127.82.243.150 and netmask 255.255.128.0, and inherits the template wealth3.

- An interface named wlan5, with IPv4 settings configured by DHCPand inherits the template wealth3.

- An interface named jam6, with IPv4 address 114.101.248.182 and netmask 255.255.192.0, and inherits the template ruins0.

0.5 Create and delete routes

0.5.1 Create files `unit3/routes0add.sh` and `unit3/routes0del.sh` that contains commands that will respective establish and delete the following routes

- 30.251.173.0/28 via the interface to your 2nd VM

- 121.175.168.0/25 via the interface to your 2nd VM

- 16.202.211.138/31 via the IP address of your 2nd VM

- 63.125.219.192/26 via the interface to your 2nd VM

- 11.178.64.0/19 via the interface to your 2nd VM

- 58.180.158.156/31 via the IP address of your 2nd VM

0.5.2 Create files `unit3/routes1add.sh` and `unit3/routes1del.sh` that contains commands that will respective establish and delete the following routes

- 72.174.237.72/30 via the interface to your 2nd VM

- 89.121.192.208/29 via the IP address of your 2nd VM

- 124.21.243.4/31 via the interface to your 2nd VM

- 32.8.136.0/27 via the interface to your 2nd VM

- 22.6.75.208/28 via the interface to your 2nd VM

- 33.184.0.0/16 via the IP address of your 2nd VM

0.5.3 Create files `unit3/routes2add.sh` and `unit3/routes2del.sh` that contains commands that will respective establish and delete the following routes

- 30.54.0.0/16 via the IP address of your 2nd VM

- 90.27.3.224/28 via the IP address of your 2nd VM

- 104.118.64.0/18 via the interface to your 2nd VM

- 14.130.250.246/31 via the IP address of your 2nd VM

- 64.103.160.0/19 via the IP address of your 2nd VM

- 88.137.0.0/18 via the interface to your 2nd VM

0.5.4 Create files `unit3/routes3add.sh` and `unit3/routes3del.sh` that contains commands that will respective establish and delete the following routes

- 121.47.0.0/17 via the IP address of your 2nd VM

- 48.238.75.0/24 via the IP address of your 2nd VM

- 36.151.56.0/21 via the interface to your 2nd VM

- 81.62.112.0/22 via the IP address of your 2nd VM

- 101.162.80.0/22 via the interface to your 2nd VM

- 118.175.130.240/29 via the interface to your 2nd VM

0.5.5 Create files `unit3/routes4add.sh` and `unit3/routes4del.sh` that contains commands that will respective establish and delete the following routes

- 93.93.15.64/26 via the IP address of your 2nd VM

- 73.113.7.0/26 via the IP address of your 2nd VM

- 26.175.0.0/16 via the interface to your 2nd VM

- 110.225.178.236/30 via the interface to your 2nd VM

- 48.77.255.0/25 via the IP address of your 2nd VM

- 11.24.219.120/29 via the interface to your 2nd VM