1. In **first section** you will find file commands, extracted and listed exactly as he did it, with the omission of mistakes during initial writing in packet tracer (**pages 1-3**).
2. In **second section** you will find detailed operation-naming and procedure done in order to acquire relevant outcome (**pages 4-10**).

R1> enable

R1# configure terminal

R1(config)# interface GigabitEthernet0/0/2

R1(config-if)# ip address 10.0.0.1 255.0.0.0

R1(config-if)# no shutdown

R1(config-if)# exit

R1(config)# interface GigabitEthernet0/0/0

R1(config-if)# ip address 192.168.2.6 255.255.255.252

R1(config-if)# no shutdown

R1(config-if)# exit

R1(config)# interface GigabitEthernet0/0/1

R1(config-if)# ip address 192.168.2.1 255.255.255.252

R1(config-if)# no shutdown

R1(config-if)# exit

R1(config)# router rip

R1(config-router)# version 2

R1(config-router)# network 10.0.0.0

R1(config-router)# network 192.168.2.0

R1(config-router)# exit

R1(config)# access-list 2 deny any

R1(config)# interface GigabitEthernet0/0/2

R1(config-if)# ip access-group 2 out

R1(config-if)# exit

R1(config)# no access-list 2

R1(config)# access-list 2 deny any

R1(config)# access-list 2 permit 192.168.1.0 0.0.0.255

R1(config)# do show access-lists

R1(config)# ip access-list standard 2

R1(config-std-nacl)# no 10

R1(config-std-nacl)# do show access-lists

R0> enable

R0# configure terminal

R0(config)# interface GigabitEthernet0/0/0

R0(config-if)# ip address 192.168.2.5 255.255.255.252

R0(config-if)# no shutdown

R0(config-if)# exit

R0(config)# interface GigabitEthernet0/0/1

R0(config-if)# ip address 192.168.1.1 255.255.255.252

R0(config-if)# no shutdown

R0(config-if)# exit

R0(config)# router rip

R0(config-router)# version 2

R0(config-router)# network 192.168.2.0

R0(config-router)# network 192.168.1.0

R0(config-router)# exit

R0(config)# access-list 1 remark test

R0(config)# interface GigabitEthernet0/0/1

R0(config-if)# ip access-group 1 in

R0(config-if)# exit

R0(config)# no access-list 1 deny 192.168.1.0 0.0.0.255

R0(config)# interface GigabitEthernet0/0/1

R0(config-if)# no ip access-group 1 in

R0# end

R0# show running-config

R0# show access-lists

R0# configure terminal

R0(config)# ip access-list standard NO-LAN4

R0(config-std-nacl)# deny 11.0.0.0 0.255.255.255

R0(config-std-nacl)# permit any

R0(config-std-nacl)# exit

R0(config)# interface GigabitEthernet0/0/1

R0(config-if)# ip access-group NO-LAN4 out

R0(config-if)# exit

R0# show access-lists

R0(config)# ip access-list standard NO-LAN4

R0(config-std-nacl)# 5 permit host 11.0.0.100

R0(config-std-nacl)# exit

R0(config)# exit

R0# show access-lists

R0# configure terminal

R0(config)# no ip access-list standard NO-LAN4

R0(config)# ip access-list standard NO-LAN4

R0(config-std-nacl)# permit host 11.0.0.100

R0(config-std-nacl)# exit

R0(config)# exit

R0# show access-lists

R0# configure terminal

R0(config)# ip access-list standard NO-LAN4

R0(config-std-nacl)# no 30

R0(config-std-nacl)# 5 permit host 11.0.0.100

R0# end

R0# show access-lists

R3> enable

R3# configure terminal

R3(config)# hostname R3

R3(config)# exit

R3# configure terminal

R3(config)# interface GigabitEthernet0/0/0

R3(config-if)# no shutdown

R3(config-if)# exit

R3(config)# interface GigabitEthernet0/0/1

R3(config-if)# ip address 172.16.0.1 255.255.0.0

R3(config-if)# no shutdown

R3(config-if)# exit

R3(config)# router rip

R3(config-router)# version 2

R3(config-router)# network 192.168.2.0

R3(config-router)# network 172.16.0.0

R3(config-router)# exit

R3(config)# interface GigabitEthernet0/0/2

R3(config-if)# ip address 11.0.0.1 255.0.0.0

R3(config-if)# no shutdown

R3(config-if)# exit

R3(config)# router rip

R3(config-router)# version 2

R3(config-router)# network 11.0.0.0

R3(config-router)# exit

R1

**Step by step, oh baby:**

Enabling privileged EXEC mode

R1> enable

Entering global configuration mode

R1# configure terminal

Assigning an IP address to GigabitEthernet0/0/2 and enabling the interface

R1(config)# interface GigabitEthernet0/0/2

R1(config-if)# ip address 10.0.0.1 255.0.0.0

R1(config-if)# no shutdown

R1(config-if)# exit

Assigning an IP address to GigabitEthernet0/0/0 and enabling the interface

R1(config)# interface GigabitEthernet0/0/0

R1(config-if)# ip address 192.168.2.6 255.255.255.252

R1(config-if)# no shutdown

R1(config-if)# exit

Assigning an IP address to GigabitEthernet0/0/1 and enabling the interface

R1(config)# interface GigabitEthernet0/0/1

R1(config-if)# ip address 192.168.2.1 255.255.255.252

R1(config-if)# no shutdown

R1(config-if)# exit

Configuring RIP routing protocol and adding networks to it

R1(config)# router rip

R1(config-router)# version 2

R1(config-router)# network 10.0.0.0

R1(config-router)# network 192.168.2.0

R1(config-router)# exit

Creating and applying an access control list (ACL)

* **Deny all traffic**.

R1(config)# access-list 2 deny any

* **Apply the ACL to interface GigabitEthernet0/0/2 for outgoing traffic.**

R1(config)# interface GigabitEthernet0/0/2

R1(config-if)# ip access-group 2 out

R1(config-if)# exit

Modifying and displaying ACLs

* **Remove the current ACL and create a new one to permit traffic from a specific subnet.**

R1(config)# no access-list 2

R1(config)# access-list 2 deny any

R1(config)# access-list 2 permit 192.168.1.0 0.0.0.255

* **View the access lists.**

R1(config)# do show access-lists

* **Enter a standard ACL configuration mode and remove entry number 10.**

R1(config)# ip access-list standard 2

R1(config-std-nacl)# no 10

R1(config-std-nacl)# do show access-lists

## R0

**Step by step, oh baby:**

Enabling privileged EXEC mode

R0> enable

Entering global configuration mode

R0# configure terminal

Assigning an IP address to GigabitEthernet0/0/0 and enabling the interface

R0(config)# interface GigabitEthernet0/0/0

R0(config-if)# ip address 192.168.2.5 255.255.255.252

R0(config-if)# no shutdown

R0(config-if)# exit

Assigning an IP address to GigabitEthernet0/0/1 and enabling the interface

R0(config)# interface GigabitEthernet0/0/1

R0(config-if)# ip address 192.168.1.1 255.255.255.252

R0(config-if)# no shutdown

R0(config-if)# exit

Configuring RIP routing protocol and adding networks to it

R0(config)# router rip

R0(config-router)# version 2

R0(config-router)# network 192.168.2.0

R0(config-router)# network 192.168.1.0

R0(config-router)# exit

Adding a remark for access control list (ACL)

R0(config)# access-list 1 remark test

Applying ACL to interface GigabitEthernet0/0/1 for incoming traffic

R0(config)# interface GigabitEthernet0/0/1

R0(config-if)# ip access-group 1 in

R0(config-if)# exit

Modifying ACL to remove denial of a specific subnet

R0(config)# no access-list 1 deny 192.168.1.0 0.0.0.255

Removing ACL from the interface

R0(config)# interface GigabitEthernet0/0/1

R0(config-if)# no ip access-group 1 in

Exiting configuration mode and displaying running configuration and ACLs

R0# end

R0# show running-config

R0# show access-lists

Creating a standard ACL named "NO-LAN4"

* **Deny traffic from subnet 11.0.0.0.**
* **Permit all other traffic.**

R0# configure terminal

R0(config)# ip access-list standard NO-LAN4

R0(config-std-nacl)# deny 11.0.0.0 0.255.255.255

R0(config-std-nacl)# permit any

R0(config-std-nacl)# exit

Applying the "NO-LAN4" ACL to interface GigabitEthernet0/0/1 for outgoing traffic

R0(config)# interface GigabitEthernet0/0/1

R0(config-if)# ip access-group NO-LAN4 out

R0(config-if)# exit

Viewing ACLs

R0# show access-lists

Adding a new rule to the "NO-LAN4" ACL to permit a specific host

R0(config)# ip access-list standard NO-LAN4

R0(config-std-nacl)# 5 permit host 11.0.0.100

R0(config-std-nacl)# exit

R0(config)# exit

Deleting and recreating "NO-LAN4" ACL

R0(config)# no ip access-list standard NO-LAN4

R0(config)# ip access-list standard NO-LAN4

R0(config-std-nacl)# permit host 11.0.0.100

R0(config-std-nacl)# exit

Removing a rule and re-adding it with a specific sequence number

R0# configure terminal

R0(config)# ip access-list standard NO-LAN4

R0(config-std-nacl)# no 30

R0(config-std-nacl)# 5 permit host 11.0.0.100

R0# end

Viewing the final ACL configuration

R0# show access-lists

# R3

**Step by step, oh baby:**

### Enabling privileged EXEC mode

R3> enable

Entering global configuration mode

R3# configure terminal

Setting the hostname for the device

R3(config)# hostname R3

R3(config)# exit

Entering global configuration mode again

R3# configure terminal

Enabling interface GigabitEthernet0/0/0

R3(config)# interface GigabitEthernet0/0/0

R3(config-if)# no shutdown

R3(config-if)# exit

Assigning an IP address to GigabitEthernet0/0/1 and enabling the interface

R3(config)# interface GigabitEthernet0/0/1

R3(config-if)# ip address 172.16.0.1 255.255.0.0

R3(config-if)# no shutdown

R3(config-if)# exit

Configuring RIP routing protocol and adding networks to it

* **For 192.168.2.0 and 172.16.0.0 networks**:

R3(config)# router rip

R3(config-router)# version 2

R3(config-router)# network 192.168.2.0

R3(config-router)# network 172.16.0.0

R3(config-router)# exit

Assigning an IP address to GigabitEthernet0/0/2 and enabling the interface

R3(config)# interface GigabitEthernet0/0/2

R3(config-if)# ip address 11.0.0.1 255.0.0.0

R3(config-if)# no shutdown

R3(config-if)# exit

### Adding another RIP routing network

* **For 11.0.0.0 network:**

R3(config)# router rip

R3(config-router)# version 2

R3(config-router)# network 11.0.0.0

R3(config-router)# exit