1. sudo apt update
2. sudo apt install net-tools
3. sudo apt install iproute2 -y
4. sudo apt install tcpdump
5. sudo apt install iputils-ping -y
6. ip netns list
7. sudo ip netns add ns0

# ns0 namespace created

1. ip link
2. sudo ip link add br0 type bridge

# br0 bridge created

1. ip link
2. sudo ip addr add 192.168.0.1/16 dev br0

# assigns the IP address **192.168.0.1** with a subnet mask of **/16** to the bridge interface **br0**

1. ip addr
2. sudo ip link set br0 up
3. Ip link \*\*
4. sudo ip link add veth0 type veth peer name ceth0

# creates **veth0** and **ceth0**, which are paired together. Any traffic sent to one end of the pair will be received by the other end.

1. Ip link
2. Sudo ip link set ceth0 netns ns0

# adding the link ceth0 to ns0

1. Ip link
2. Sudo ip link set vetho master br0

# adding the link veth0 to bridge . master is the convention here.

1. Ip link
2. Sudo ip link set veth0 up
3. Sudo ip netns exec ns0 ip link set ceth0 up
4. Ip link
5. Sudo ip netns exec ns0 bash
6. Ip addr
7. Ip addr add 192.168.0.2/16 dev ceth0

# we could have done it without entering bash

Sudo ip netns exec ns0

Ip addr add 192.168.0.2/16 dev ceth0

1. Ip addr

Now we want to ping in the host

In terminal 2 :

1. Ip addr
2. Sudo ip netns exec ns0 bash
3. Ping # but the ping will be unreachable , because no route is added.
4. Route
5. Ip route add default via 192.168.0.1(bridge)
6. Route

Listen from terminal 1

1. sudo tcpdump -i br0

From terminal 2

1. Ping 10.42.1.95