Mawlana Bhashani Science And Technology University

Lab-Report

Lab Report No: 02

Lab Report Name:Linux 02

Group member ID: IT-18019 and IT-18037

Course title: Computer Network

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1.

IP addresses can be reached through the public internet, and 192.168.1.1 is among them. This default IP address of most Linksys routers is one of 65,536 IP addresses in the 16-bit block of the private IPv4 address space, which includes addresses from 192.168.0.0 to 192.168.255.255

192.168.0.0 is the beginning of the private IP address range that includes all IP addresses through 192.168.255.255. This IP address is usually not used on a network, and a phone or computer wouldn't be assigned this address. However, some networks that include 192.168.0.0 in the network but do not start with this address could use it without problems for a device

2.Find IP & MAC

```
shamim@shamim-HP-ProBook-450-G5:~/Desktop/Linux Lab2$ lscpu
Architecture:          x86_64
CPU op-mode(s):        32-bit, 64-bit
Byte Order:            Little Endian
CPU(s):                4
On-line CPU(s) list:   0-3
Thread(s) per core:    2
Core(s) per socket:    2
Socket(s):             1
NUMA node(s):          1
Vendor ID:             GenuineIntel
CPU family:            6
Model:                 142
Model name:            Intel(R) Core(TM) i3-7100U CPU @ 2.40GHz
Stepping:              9
CPU MHz:               805.921
CPU max MHz:           2400.0000
CPU min MHz:           400.0000
BogoMIPS:              4800.00
Virtualization:        VT-x
L1d cache:             32K
L1i cache:             32K
L2 cache:              256K
L3 cache:              3072K
NUMA node0 CPU(s):     0-3
Flags:                 fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall n
x pdpe1gb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf pni pclmulqdq dtes64 monitor ds_cpl vm
x est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch
cpuid_fault epb invpcid_single pti ssbd ibrs ibpb stibp tpr_shadow vnmi flexpriority ept vpid fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid mpx
 rdseed adx smap clflushopt intel_pt xsaveopt xsavec xgetbv1 xsaves dtherm arat pln pts hwp hwp_notify hwp_act_window hwp_epp md_clear flush_l1d
shamim@shamim-HP-ProBook-450-G5:~/Desktop/Linux Lab2$ lshw
WARNING: you should run this program as super-user.
shamim-hp-probook-450-g5
    description: Computer
    width: 64 bits
    capabilities: smp vsyscall32
```
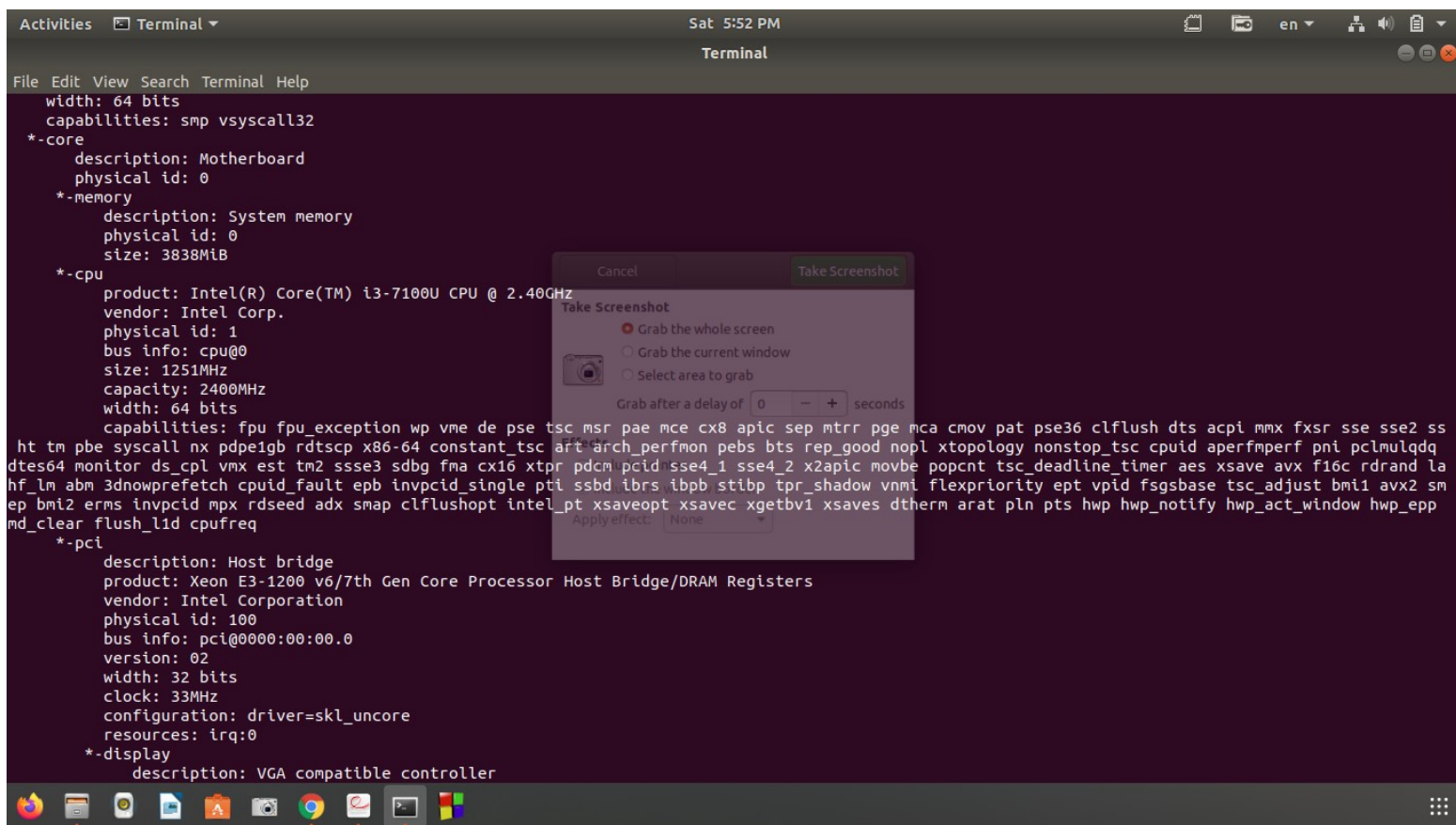
Terminal

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```
     width: 64 bits
     capabilities: smp vsyscall32
 *-core
     description: Motherboard
     physical id: 0
   *-memory
        description: System memory
        physical id: 0
        size: 3838MiB
   *-cpu
        product: Intel(R) Core(TM) i3-7100U CPU @ 2.40GHz
        vendor: Intel Corp.
        physical id: 1
        bus info: cpu@0
        size: 1251MHz
        capacity: 2400MHz
        width: 64 bits
        capabilities: fpu fpu_exception wp vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss
 ht tm pbe syscall nx pdpe1gb rdtscp x86-64 constant_tsc art arch_perfmon pebs bts rep_good nopl xtopology nonstop_tsc cpuid aperfmperf pni pclmulqdq
dtes64 monitor ds_cpl vmx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand la
hf_lm abm 3dnowprefetch cpuid_fault epb invpcid_single pti ssbd ibrs ibpb stibp tpr_shadow vnmi flexpriority ept vpid fsgsbase tsc_adjust bmi1 avx2 sm
ep bmi2 erms invpcid mpx rdseed adx smap clflushopt intel_pt xsaveopt xsavec xgetbv1 xsaves dtherm arat pln pts hwp hwp_notify hwp_act_window hwp_epp
md_clear flush_l1d cpufreq
   *-pci
        description: Host bridge
        product: Xeon E3-1200 v6/7th Gen Core Processor Host Bridge/DRAM Registers
        vendor: Intel Corporation
        physical id: 100
        bus info: pci@0000:00:00.0
        version: 02
        width: 32 bits
        clock: 33MHz
        configuration: driver=skl_uncore
        resources: irq:0
     *-display
           description: VGA compatible controller
```

Take Screenshot

Cancel   Take Screenshot

Take Screenshot

◉ Grab the whole screen
○ Grab the current window
○ Select area to grab

Grab after a delay of   0   —   +   seconds

Apply effect: None ▾

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```
          configuration: driver=i915 latency=0
          resources: iomemory:1f0-1ef irq:132 memory:1ffe000000-1ffefffff memory:e0000000-effffff ioport:4000(size=64) memory:c0000-dffff
       *-generic:0
          description: Signal processing controller
          product: Xeon E3-1200 v5/E3-1500 v5/6th Gen Core Processor Thermal Subsystem
          vendor: Intel Corporation
          physical id: 4
          bus info: pci@0000:00:04.0
          version: 02
          width: 64 bits
          clock: 33MHz
          capabilities: cap_list
          configuration: driver=proc_thermal latency=0
          resources: iomemory:1f0-1ef irq:16 memory:1fff010000-1fff017fff
       *-usb
          description: USB controller
          product: Sunrise Point-LP USB 3.0 xHCI Controller
          vendor: Intel Corporation
          physical id: 14
          bus info: pci@0000:00:14.0
          version: 21
          width: 64 bits
          clock: 33MHz
          capabilities: xhci bus_master cap_list
          configuration: driver=xhci_hcd latency=0
          resources: irq:125 memory:f0300000-f030ffff
       *-generic:1
          description: Signal processing controller
          product: Sunrise Point-LP Thermal subsystem
          vendor: Intel Corporation
          physical id: 14.2
          bus info: pci@0000:00:14.2
          version: 21
          width: 64 bits
          clock: 33MHz
          capabilities: cap list
```

```
          description: Communication controller
          product: Sunrise Point-LP CSME HECI #1
          vendor: Intel Corporation
          physical id: 16
          bus info: pci@0000:00:16.0
          version: 21
          width: 64 bits
          clock: 33MHz
          capabilities: bus_master cap_list
          configuration: driver=mei_me latency=0
          resources: iomemory:1f0-1ef irq:130 memory:1fff01d000-1fff01dfff
       *-storage
          description: SATA controller
          product: Sunrise Point-LP SATA Controller [AHCI mode]
          vendor: Intel Corporation
          physical id: 17
          bus info: pci@0000:00:17.0
          version: 21
          width: 32 bits
          clock: 66MHz
          capabilities: storage ahci_1.0 bus_master cap_list
          configuration: driver=ahci latency=0
          resources: irq:126 memory:f0314000-f0315fff memory:f0317000-f03170ff ioport:4080(size=8) ioport:4088(size=4) ioport:4060(size=32) memory:
f0316000-f03167ff
       *-pci:0
          description: PCI bridge
          product: Sunrise Point-LP PCI Express Root Port #5
          vendor: Intel Corporation
          physical id: 1c
          bus info: pci@0000:00:1c.0
          version: f1
          width: 32 bits
          clock: 33MHz
          capabilities: pci normal_decode bus_master cap_list
          configuration: driver=pcieport
          resources: irq:122 ioport:3000(size=4096) memory:f0200000-f02fffff
```

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```
        clock: 33MHz
        capabilities: bus_master cap_list ethernet physical tp mii 10bt 10bt-fd 100bt 100bt-fd 1000bt 1000bt-fd autonegotiation
        configuration: autonegotiation=on broadcast=yes driver=r8169 driverversion=2.3LK-NAPI duplex=half firmware=rtl8168h-2_0.0.2 02/26/15 l
atency=0 link=no multicast=yes port=MII speed=10Mbit/s
        resources: irq:16 ioport:3000(size=256) memory:f0204000-f0204fff memory:f0200000-f0203fff
   *-pci:1
        description: PCI bridge
        product: Sunrise Point-LP PCI Express Root Port #6
        vendor: Intel Corporation
        physical id: 1c.5
        bus info: pci@0000:00:1c.5
        version: f1
        width: 32 bits
        clock: 33MHz
        capabilities: pci normal_decode bus_master cap_list
        configuration: driver=pcieport
        resources: irq:123 memory:f0100000-f01fffff
      *-network
           description: Wireless interface
           product: Dual Band Wireless-AC 3168NGW [Stone Peak]
           vendor: Intel Corporation
           physical id: 0
           bus info: pci@0000:02:00.0
           logical name: wlp2s0
           version: 10
           serial: 68:ec:c5:01:ec:b2
           width: 64 bits
           clock: 33MHz
           capabilities: bus_master cap_list ethernet physical wireless
           configuration: broadcast=yes driver=iwlwifi driverversion=4.15.0-128-generic firmware=29.1044073957.0 latency=0 link=no multicast=yes
wireless=IEEE 802.11
           resources: irq:131 memory:f0100000-f0101fff
   *-pci:2
        description: PCI bridge
        product: Intel Corporation
        vendor: Intel Corporation
```

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```
        width: 32 bits
        clock: 33MHz
        capabilities: isa bus_master
        configuration: latency=0
   *-memory UNCLAIMED
        description: Memory controller
        product: Sunrise Point-LP PMC
        vendor: Intel Corporation
        physical id: 1f.2
        bus info: pci@0000:00:1f.2
        version: 21
        width: 32 bits
        clock: 33MHz (30.3ns)
        configuration: latency=0
        resources: memory:f0310000-f0313fff
   *-multimedia
        description: Audio device
        product: Sunrise Point-LP HD Audio
        vendor: Intel Corporation
        physical id: 1f.3
        bus info: pci@0000:00:1f.3
        version: 21
        width: 64 bits
        clock: 33MHz
        capabilities: bus_master cap_list
        configuration: driver=snd_hda_intel latency=64
        resources: iomemory:1f0-1ef iomemory:1f0-1ef irq:133 memory:1fff018000-1fff01bfff memory:1fff000000-1fff00ffff
   *-serial UNCLAIMED
        description: SMBus
        product: Sunrise Point-LP SMBus
        vendor: Intel Corporation
        physical id: 1f.4
        bus info: pci@0000:00:1f.4
        version: 21
        width: 64 bits
        clock: 33MHz
```

```
                 *-volume:0 UNCLAIMED
                       description: Apple partition map
                       physical id: 1
                       capacity: 17KiB
                 *-volume:1 UNCLAIMED
                       description: Apple HFS
                       vendor: Mac OS X
                       physical id: 2
                       version: 4
                       serial: 00000000-0000-0000-0000-000000001000
                       size: 5472KiB
                       capacity: 5472KiB
                       capabilities: hfsplus initialized
                       configuration: checked=1904-01-01 05:53:20 created=2017-11-07 09:44:36 filesystem=hfsplus lastmountedby=10.0 modified=2017-11-27 16
:33:30 state=clean
  *-network
        description: Ethernet interface
        physical id: 1
        logical name: enx00a0c6000000
        serial: 00:a0:c6:00:00:00
        capabilities: ethernet physical
        configuration: broadcast=yes driver=cdc_ether driverversion=22-Aug-2005 firmware=ZTE CDC Ethernet Device ip=192.168.0.179 link=yes multicast=ye
s
WARNING: output may be incomplete or inaccurate, you should run this program as super-user.
shamim@shamim-HP-ProBook-450-G5:~/Desktop/Linux Lab2$ hwinfo

Command 'hwinfo' not found, but can be installed with:

sudo apt install hwinfo

shamim@shamim-HP-ProBook-450-G5:~/Desktop/Linux Lab2$ free -m
              total        used        free      shared  buff/cache   available
Mem:           3838        1544        1197         390        1096        1665
Swap:          2047           1        2046
shamim@shamim-HP-ProBook-450-G5:~/Desktop/Linux Lab2$
```

Mac:

```
shamim@shamim-HP-ProBook-450-G5:~/Desktop/Linux Lab2$ ip link show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN mode DEFAULT
 group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
2: enp1s0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc fq_codel state DOW
N mode DEFAULT group default qlen 1000
    link/ether 10:e7:c6:e4:db:06 brd ff:ff:ff:ff:ff:ff
3: wlp2s0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc mq state DOWN mode
 DORMANT group default qlen 1000
    link/ether 68:ec:c5:01:ec:b2 brd ff:ff:ff:ff:ff:ff
4: enx00a0c6000000: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel st
ate UP mode DEFAULT group default qlen 1000
    link/ether 00:a0:c6:00:00:00 brd ff:ff:ff:ff:ff:ff
shamim@shamim-HP-ProBook-450-G5:~/Desktop/Linux Lab2$ 
```
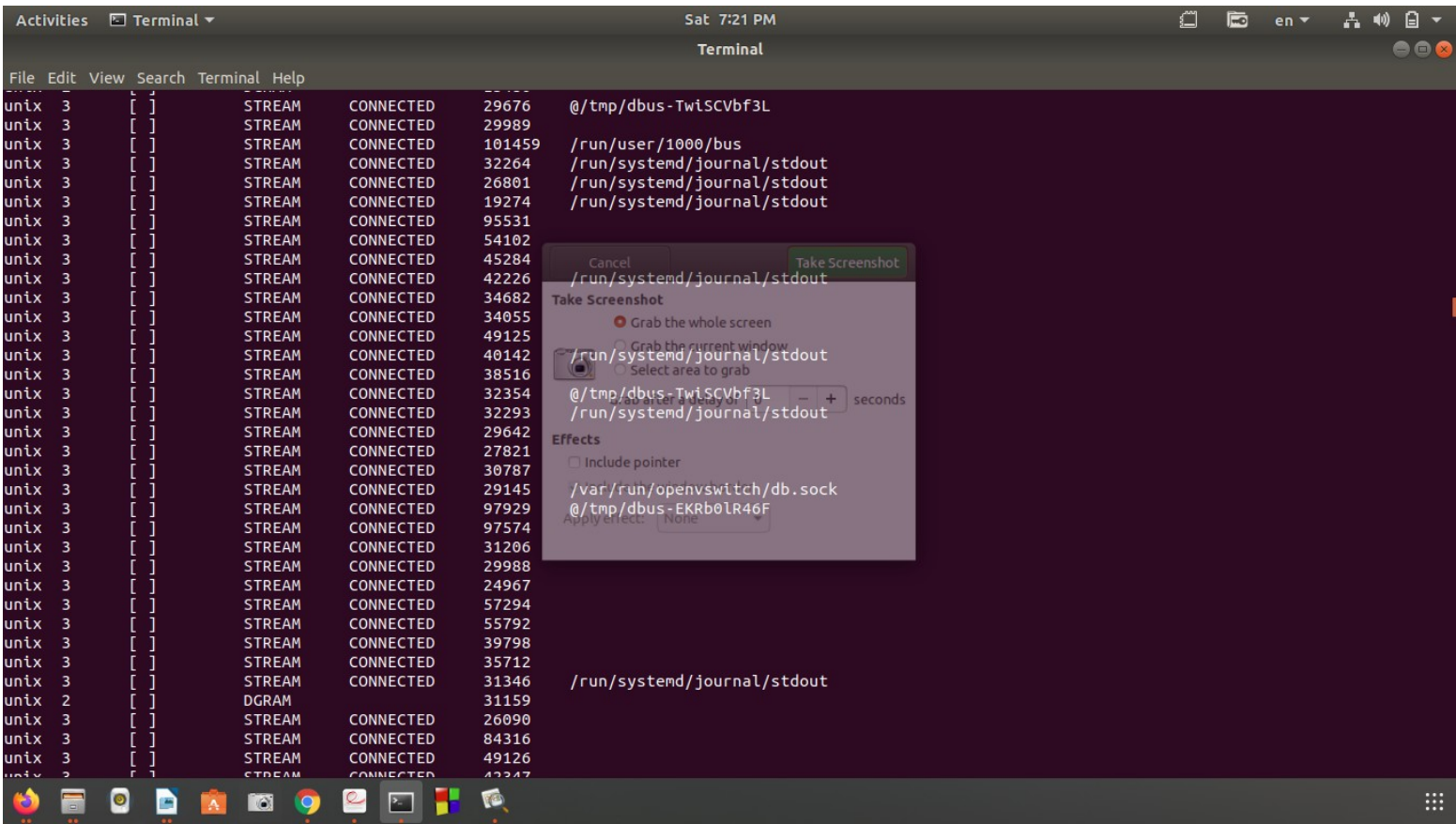
3.

File Edit View Search Terminal Help

```
shamim@shamim-HP-ProBook-450-G5:~/Desktop/Linux Lab2$
shamim@shamim-HP-ProBook-450-G5:~/Desktop/Linux Lab2$    netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address          Foreign Address         State
tcp        0      0 shamim-HP-ProBook:48744 172.67.75.102:https     ESTABLISHED
tcp        0      0 shamim-HP-ProBook:42548 53.72.190.35.bc.g:https TIME_WAIT
tcp        0      0 shamim-HP-ProBook:40104 234.63.190.35.bc.:https TIME_WAIT
tcp        0      0 shamim-HP-ProBook:60626 ec2-52-26-240-56.:https ESTABLISHED
tcp        0      0 shamim-HP-ProBook:48970 1.80.190.35.bc.go:https TIME_WAIT
tcp        0      0 shamim-HP-ProBook:56920 104.18.53.245:https     ESTABLISHED
tcp        0      0 shamim-HP-ProBook:40116 234.63.190.35.bc.:https TIME_WAIT
tcp        0      0 localhost:54650         localhost:9614          ESTABLISHED
tcp        0      0 localhost:54314         localhost:9614          ESTABLISHED
tcp        0      0 shamim-HP-ProBook:39180 74.125.24.188:5228      ESTABLISHED
tcp        0      0 shamim-HP-ProBook:53708 219.220.186.35.bc:https TIME_WAIT
tcp        0      0 shamim-HP-ProBook:49440 104.18.2.159:https      ESTABLISHED
tcp        0      0 shamim-HP-ProBook:40112 151.101.10.217:https    ESTABLISHED
tcp        0      0 shamim-HP-ProBook:53704 104.18.52.245:https     ESTABLISHED
tcp        0      0 shamim-HP-ProBook:55302 172.67.156.77:https     ESTABLISHED
tcp        0      0 shamim-HP-ProBook:53672 219.220.186.35.bc:https TIME_WAIT
tcp6       1      0 shamim-HP-ProBook:35170 maa03s31-in-f1.1e:https CLOSE_WAIT
tcp6       1      0 shamim-HP-ProBook:49746 maa03s29-in-f1.1e:https CLOSE_WAIT
tcp6       1      0 shamim-HP-ProBook:35172 maa03s31-in-f1.1e:https CLOSE_WAIT
tcp6       0      0 localhost:9614          localhost:54314         ESTABLISHED
tcp6       0      0 localhost:9614          localhost:54650         ESTABLISHED
udp        0      0 shamim-HP-ProBook:37686 172.217.194.189:443     ESTABLISHED
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags       Type       State         I-Node   Path
unix  2      [ ]         DGRAM                    36402    /run/user/1000/systemd/notify
unix  2      [ ]         DGRAM                    28623    /run/user/121/systemd/notify
unix  2      [ ]         DGRAM                    13786    /run/systemd/journal/syslog
unix  25     [ ]         DGRAM                    13788    /run/systemd/journal/dev-log
unix  9      [ ]         DGRAM                    13800    /run/systemd/journal/socket
unix  2      [ ]         DGRAM                    36336    /run/wpa_supplicant/wlp2s0
unix  2      [ ]         DGRAM                    36363    /run/wpa_supplicant/p2p-dev-wlp2s0
unix  3      [ ]         DGRAM                    13773    /run/systemd/notify
```

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```
unix  3      [ ]         DGRAM                    13773    /run/systemd/notify
unix  3      [ ]         SEQPACKET  CONNECTED     39866    @00012
unix  3      [ ]         SEQPACKET  CONNECTED     39864    @00011
unix  3      [ ]         STREAM     CONNECTED     93057
unix  3      [ ]         STREAM     CONNECTED     81817    /run/user/1000/bus
unix  3      [ ]         STREAM     CONNECTED     57058
unix  3      [ ]         STREAM     CONNECTED     40421
unix  3      [ ]         SEQPACKET  CONNECTED     39862
unix  3      [ ]         STREAM     CONNECTED     29958
unix  3      [ ]         STREAM     CONNECTED     100407
unix  3      [ ]         STREAM     CONNECTED     37795
unix  3      [ ]         STREAM     CONNECTED     36685    /run/systemd/journal/stdout
unix  3      [ ]         STREAM     CONNECTED     36542    /run/user/1000/bus
unix  3      [ ]         STREAM     CONNECTED     33242
unix  2      [ ]         DGRAM                    27890
unix  3      [ ]         STREAM     CONNECTED     69686
unix  3      [ ]         STREAM     CONNECTED     57290
unix  3      [ ]         STREAM     CONNECTED     53981
unix  3      [ ]         STREAM     CONNECTED     37388
unix  3      [ ]         STREAM     CONNECTED     31374    /run/user/121/pulse/native
unix  3      [ ]         STREAM     CONNECTED     27795    /run/systemd/journal/stdout
unix  3      [ ]         STREAM     CONNECTED     83446
unix  3      [ ]         STREAM     CONNECTED     41959
unix  3      [ ]         STREAM     CONNECTED     42765    @/tmp/dbus-5nEUbBBk
unix  3      [ ]         STREAM     CONNECTED     39480
unix  3      [ ]         STREAM     CONNECTED     24347    /var/run/dbus/system_bus_socket
unix  2      [ ]         STREAM     CONNECTED     69692
unix  3      [ ]         STREAM     CONNECTED     40545    @/tmp/dbus-EKRb0lR46F
unix  3      [ ]         STREAM     CONNECTED     37776
unix  3      [ ]         STREAM     CONNECTED     38468
unix  3      [ ]         STREAM     CONNECTED     33197    /run/user/121/bus
unix  3      [ ]         STREAM     CONNECTED     22323    /run/systemd/journal/stdout
unix  3      [ ]         STREAM     CONNECTED     44861    /run/systemd/journal/stdout
unix  3      [ ]         STREAM     CONNECTED     42245    /run/user/1000/pulse/native
unix  3      [ ]         STREAM     CONNECTED     32387    /var/run/dbus/system_bus_socket
unix  3      [ ]         STREAM     CONNECTED     40420
```

```
unix  3       [ ]         STREAM     CONNECTED     95807
unix  3       [ ]         STREAM     CONNECTED     39087     @/tmp/dbus-EKRb0lR46F
unix  3       [ ]         STREAM     CONNECTED     37739
unix  3       [ ]         STREAM     CONNECTED     36553     /run/user/1000/bus
unix  3       [ ]         STREAM     CONNECTED     31362     @/tmp/dbus-TwiSCVbf3L
unix  3       [ ]         STREAM     CONNECTED     32819
unix  3       [ ]         STREAM     CONNECTED     69781
unix  3       [ ]         STREAM     CONNECTED     68243
unix  3       [ ]         STREAM     CONNECTED     57289
unix  3       [ ]         STREAM     CONNECTED     49124
unix  3       [ ]         STREAM     CONNECTED     36820
unix  3       [ ]         DGRAM                    36403
unix  3       [ ]         STREAM     CONNECTED     42880
unix  3       [ ]         STREAM     CONNECTED     39363
unix  2       [ ]         DGRAM                    24337
unix  3       [ ]         STREAM     CONNECTED     25105     /run/systemd/journal/stdout
unix  3       [ ]         STREAM     CONNECTED     36730     /run/systemd/journal/stdout
unix  3       [ ]         STREAM     CONNECTED     38467
unix  3       [ ]         STREAM     CONNECTED     31369     /run/user/121/bus
unix  3       [ ]         STREAM     CONNECTED     34029     /run/systemd/journal/stdout
unix  3       [ ]         STREAM     CONNECTED     69782
unix  3       [ ]         STREAM     CONNECTED     68242
unix  3       [ ]         STREAM     CONNECTED     48918
unix  3       [ ]         STREAM     CONNECTED     40111
unix  3       [ ]         STREAM     CONNECTED     38306     @/tmp/.X11-unix/X0
unix  3       [ ]         STREAM     CONNECTED     41958     @/tmp/.X11-unix/X0
unix  3       [ ]         STREAM     CONNECTED     40124
unix  3       [ ]         STREAM     CONNECTED     28032     /run/systemd/journal/stdout
unix  2       [ ]         DGRAM                    13824
unix  3       [ ]         STREAM     CONNECTED     100399
unix  3       [ ]         STREAM     CONNECTED     57831     @/tmp/dbus-5nEUbBBk
unix  3       [ ]         STREAM     CONNECTED     37833
unix  3       [ ]         STREAM     CONNECTED     37794
unix  3       [ ]         STREAM     CONNECTED     33297
unix  3       [ ]         STREAM     CONNECTED     33196
unix  3       [ ]         STREAM     CONNECTED     26408     /var/run/dbus/system_bus_socket
```

```
unix  3       [ ]         STREAM     CONNECTED     66225
unix  3       [ ]         STREAM     CONNECTED     41962
unix  2       [ ]         DGRAM                    39685
unix  3       [ ]         STREAM     CONNECTED     40125     /run/user/1000/bus
unix  2       [ ]         DGRAM                    77460
unix  3       [ ]         STREAM     CONNECTED     67448
unix  3       [ ]         STREAM     CONNECTED     40544
unix  3       [ ]         STREAM     CONNECTED     38482
unix  3       [ ]         STREAM     CONNECTED     35670     @/tmp/.X11-unix/X0
unix  3       [ ]         STREAM     CONNECTED     32276     /run/systemd/journal/stdout
unix  3       [ ]         STREAM     CONNECTED     80032
unix  3       [ ]         STREAM     CONNECTED     30966     /run/user/121/bus
unix  3       [ ]         STREAM     CONNECTED     30175     /run/systemd/journal/stdout
unix  3       [ ]         DGRAM                    24024
unix  3       [ ]         STREAM     CONNECTED     69778
unix  3       [ ]         STREAM     CONNECTED     62486
unix  3       [ ]         STREAM     CONNECTED     58068     /run/systemd/journal/stdout
unix  3       [ ]         STREAM     CONNECTED     53980
unix  3       [ ]         STREAM     CONNECTED     36825
unix  3       [ ]         STREAM     CONNECTED     38400
unix  3       [ ]         STREAM     CONNECTED     41961
unix  3       [ ]         SEQPACKET  CONNECTED     39867
unix  3       [ ]         STREAM     CONNECTED     39312
unix  3       [ ]         STREAM     CONNECTED     35623     /run/systemd/journal/stdout
unix  2       [ ]         DGRAM                    24339
unix  3       [ ]         STREAM     CONNECTED     25622
unix  3       [ ]         STREAM     CONNECTED     42892     @/tmp/.X11-unix/X0
unix  3       [ ]         STREAM     CONNECTED     37790     /run/user/1000/bus
unix  3       [ ]         STREAM     CONNECTED     38420
unix  3       [ ]         STREAM     CONNECTED     31359     /var/run/dbus/system_bus_socket
unix  3       [ ]         STREAM     CONNECTED     33193
unix  2       [ ]         DGRAM                    24155
unix  3       [ ]         STREAM     CONNECTED     32827     /run/user/121/bus
unix  3       [ ]         STREAM     CONNECTED     58069     /run/user/1000/bus
unix  2       [ ]         DGRAM                    44809
unix  3       [ ]         STREAM     CONNECTED     36541
unix  2       [ ]         DGRAM                    37306
```

Terminal

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```
unix  3      [ ]        STREAM     CONNECTED     29676     @/tmp/dbus-TwiSCVbf3L
unix  3      [ ]        STREAM     CONNECTED     29989
unix  3      [ ]        STREAM     CONNECTED     101459    /run/user/1000/bus
unix  3      [ ]        STREAM     CONNECTED     32264     /run/systemd/journal/stdout
unix  3      [ ]        STREAM     CONNECTED     26801     /run/systemd/journal/stdout
unix  3      [ ]        STREAM     CONNECTED     19274     /run/systemd/journal/stdout
unix  3      [ ]        STREAM     CONNECTED     95531
unix  3      [ ]        STREAM     CONNECTED     54102
unix  3      [ ]        STREAM     CONNECTED     45284
unix  3      [ ]        STREAM     CONNECTED     42226     /run/systemd/journal/stdout
unix  3      [ ]        STREAM     CONNECTED     34682
unix  3      [ ]        STREAM     CONNECTED     34055
unix  3      [ ]        STREAM     CONNECTED     49125
unix  3      [ ]        STREAM     CONNECTED     40142     /run/systemd/journal/stdout
unix  3      [ ]        STREAM     CONNECTED     38516
unix  3      [ ]        STREAM     CONNECTED     32354     @/tmp/dbus-TwiSCVbf3L
unix  3      [ ]        STREAM     CONNECTED     32293     /run/systemd/journal/stdout
unix  3      [ ]        STREAM     CONNECTED     29642
unix  3      [ ]        STREAM     CONNECTED     27821
unix  3      [ ]        STREAM     CONNECTED     30787
unix  3      [ ]        STREAM     CONNECTED     29145
unix  3      [ ]        STREAM     CONNECTED     97929
unix  3      [ ]        STREAM     CONNECTED     97574
unix  3      [ ]        STREAM     CONNECTED     31206
unix  3      [ ]        STREAM     CONNECTED     29988
unix  3      [ ]        STREAM     CONNECTED     24967
unix  3      [ ]        STREAM     CONNECTED     57294
unix  3      [ ]        STREAM     CONNECTED     55792
unix  3      [ ]        STREAM     CONNECTED     39798
unix  3      [ ]        STREAM     CONNECTED     35712
unix  3      [ ]        STREAM     CONNECTED     31346     /run/systemd/journal/stdout
unix  2      [ ]        DGRAM                    31159
unix  3      [ ]        STREAM     CONNECTED     26090
unix  3      [ ]        STREAM     CONNECTED     84316
unix  3      [ ]        STREAM     CONNECTED     49126
unix  3      [ ]        STREAM     CONNECTED     42347
```

Cancel   Take Screenshot

Take Screenshot
   ● Grab the whole screen
   ○ Grab the current window
   ○ Select area to grab

   Grab after   −   +   seconds

Effects
   ☐ Include pointer

   /var/run/openvswitch/db.sock
   @/tmp/dbus-EKRb0lR46F
   Apply effects   None ▾

```
unix  3       [ ]          STREAM      CONNECTED      39992
unix  3       [ ]          STREAM      CONNECTED      32278
unix  3       [ ]          STREAM      CONNECTED      42294        @/tmp/.X11-unix/X0
unix  3       [ ]          STREAM      CONNECTED      42231        /run/user/1000/bus
unix  3       [ ]          STREAM      CONNECTED      41035
unix  3       [ ]          STREAM      CONNECTED      39196        /run/systemd/journal/stdout
unix  3       [ ]          STREAM      CONNECTED      36824        /run/systemd/journal/stdout
unix  3       [ ]          STREAM      CONNECTED      38374
unix  3       [ ]          STREAM      CONNECTED      32260
unix  3       [ ]          STREAM      CONNECTED      27716        /var/run/dbus/system_bus_socket
unix  3       [ ]          STREAM      CONNECTED      26486        /var/run/dbus/system_bus_socket
unix  3       [ ]          STREAM      CONNECTED      77443
unix  3       [ ]          STREAM      CONNECTED      42283
unix  3       [ ]          STREAM      CONNECTED      39412        @/tmp/.X11-unix/X0
unix  3       [ ]          STREAM      CONNECTED      38560        /run/user/1000/bus
unix  3       [ ]          STREAM      CONNECTED      39117
unix  3       [ ]          STREAM      CONNECTED      31154
unix  3       [ ]          STREAM      CONNECTED      95746
unix  3       [ ]          STREAM      CONNECTED      36680
unix  3       [ ]          STREAM      CONNECTED      30152
unix  3       [ ]          SEQPACKET   CONNECTED      43033
unix  3       [ ]          STREAM      CONNECTED      39372        /run/systemd/journal/stdout
unix  3       [ ]          STREAM      CONNECTED      42228        /run/systemd/journal/stdout
unix  3       [ ]          STREAM      CONNECTED      39084
unix  3       [ ]          STREAM      CONNECTED      39035        /run/user/1000/bus
unix  3       [ ]          STREAM      CONNECTED      36731
unix  3       [ ]          STREAM      CONNECTED      36621        /var/run/dbus/system_bus_socket
unix  3       [ ]          STREAM      CONNECTED      25241
unix  3       [ ]          STREAM      CONNECTED      24343        /var/run/dbus/system_bus_socket
unix  3       [ ]          STREAM      CONNECTED      95799
unix  3       [ ]          STREAM      CONNECTED      42834
unix  3       [ ]          STREAM      CONNECTED      38835
unix  3       [ ]          STREAM      CONNECTED      32328
unix  3       [ ]          STREAM      CONNECTED      29459
shamim@shamim-HP-ProBook-450-G5:~/Desktop/Linux Lab2$   - r
```

4.

File Edit View Search Terminal Help

```
shamim@shamim-HP-ProBook-450-G5:~$ netstat -r
Kernel IP routing table
Destination     Gateway         Genmask         Flags   MSS Window  irtt Iface
default         _gateway        0.0.0.0         UG        0 0         0 enx00a0c6000000
link-local      0.0.0.0         255.255.0.0     U         0 0         0 enx00a0c6000000
192.168.0.0     0.0.0.0         255.255.255.0   U         0 0         0 enx00a0c6000000
shamim@shamim-HP-ProBook-450-G5:~$
```

File Edit View Search Terminal Help

```
         TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

root@shamim-HP-ProBook-450-G5:~# ifconfig enp1s0:0 192.168.2.32
root@shamim-HP-ProBook-450-G5:~# ifconfig
enp1s0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
         ether 10:e7:c6:e4:db:06  txqueuelen 1000  (Ethernet)
         RX packets 0  bytes 0 (0.0 B)
         RX errors 0  dropped 0  overruns 0  frame 0
         TX packets 0  bytes 0 (0.0 B)
         TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

enp1s0:0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
         inet 192.168.2.32  netmask 255.255.255.0  broadcast 192.168.2.255
         ether 10:e7:c6:e4:db:06  txqueuelen 1000  (Ethernet)

enx00a0c6000000: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
         inet 192.168.0.179  netmask 255.255.255.0  broadcast 192.168.0.255
         inet6 fe80::d4bf:57de:4b9c:7988  prefixlen 64  scopeid 0x20<link>
         ether 00:a0:c6:00:00:00  txqueuelen 1000  (Ethernet)
         RX packets 51931  bytes 57852206 (57.8 MB)
         RX errors 0  dropped 0  overruns 0  frame 0
         TX packets 31296  bytes 4501997 (4.5 MB)
         TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
         inet 127.0.0.1  netmask 255.0.0.0
         inet6 ::1  prefixlen 128  scopeid 0x10<host>
         loop  txqueuelen 1000  (Local Loopback)
         RX packets 4638  bytes 1415639 (1.4 MB)
         RX errors 0  dropped 0  overruns 0  frame 0
         TX packets 4638  bytes 1415639 (1.4 MB)
         TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

wlp2s0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
         ether 68:ec:c5:01:ec:b2  txqueuelen 1000  (Ethernet)
         RX packets 0  bytes 0 (0.0 B)
```

File Edit View Search Terminal Help

```
      ether 10:e7:c6:e4:db:06  txqueuelen 1000  (Ethernet)
      RX packets 0  bytes 0 (0.0 B)
      RX errors 0  dropped 0  overruns 0  frame 0
      TX packets 0  bytes 0 (0.0 B)
      TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

enp1s0:0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
      inet 192.168.2.32  netmask 255.255.255.0  broadcast 192.168.2.255
      ether 10:e7:c6:e4:db:06  txqueuelen 1000  (Ethernet)

enx00a0c6000000: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
      inet 192.168.2.32  netmask 255.255.255.0  broadcast 192.168.2.255
      inet6 fe80::d4bf:57de:4b9c:7988  prefixlen 64  scopeid 0x20<link>
      ether 00:a0:c6:00:00:00  txqueuelen 1000  (Ethernet)
      RX packets 52117  bytes 57914388 (57.9 MB)
      RX errors 0  dropped 0  overruns 0  frame 0
      TX packets 31510  bytes 4679664 (4.6 MB)
      TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
      inet 127.0.0.1  netmask 255.0.0.0
      inet6 ::1  prefixlen 128  scopeid 0x10<host>
      loop  txqueuelen 1000  (Local Loopback)
      RX packets 4917  bytes 1504065 (1.5 MB)
      RX errors 0  dropped 0  overruns 0  frame 0
      TX packets 4917  bytes 1504065 (1.5 MB)
      TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

wlp2s0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
      ether 68:ec:c5:01:ec:b2  txqueuelen 1000  (Ethernet)
      RX packets 0  bytes 0 (0.0 B)
      RX errors 0  dropped 0  overruns 0  frame 0
      TX packets 0  bytes 0 (0.0 B)
      TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

root@shamim-HP-ProBook-450-G5:~# netstat -r
```

File Edit View Search Terminal Help

```
Destination      Gateway        Genmask         Flags   MSS Window  irtt Iface
192.168.2.0      0.0.0.0        255.255.255.0   U         0 0          0 enp1s0
root@shamim-HP-ProBook-450-G5:~# ip route delete defult via 192.168.2.32
Error: any valid prefix is expected rather than "defult".
root@shamim-HP-ProBook-450-G5:~# ifconfig enp1s0:0 down
root@shamim-HP-ProBook-450-G5:~# ifconfig
enp1s0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
      ether 10:e7:c6:e4:db:06  txqueuelen 1000  (Ethernet)
      RX packets 0  bytes 0 (0.0 B)
      RX errors 0  dropped 0  overruns 0  frame 0
      TX packets 0  bytes 0 (0.0 B)
      TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

enx00a0c6000000: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
      inet 192.168.0.179  netmask 255.255.255.0  broadcast 192.168.0.255
      inet6 fe80::d4bf:57de:4b9c:7988  prefixlen 64  scopeid 0x20<link>
      ether 00:a0:c6:00:00:00  txqueuelen 1000  (Ethernet)
      RX packets 3997  bytes 4104092 (4.1 MB)
      RX errors 0  dropped 0  overruns 0  frame 0
      TX packets 2125  bytes 587848 (587.8 KB)
      TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
      inet 127.0.0.1  netmask 255.0.0.0
      inet6 ::1  prefixlen 128  scopeid 0x10<host>
      loop  txqueuelen 1000  (Local Loopback)
      RX packets 6815  bytes 2133259 (2.1 MB)
      RX errors 0  dropped 0  overruns 0  frame 0
      TX packets 6815  bytes 2133259 (2.1 MB)
      TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

wlp2s0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
      ether 68:ec:c5:01:ec:b2  txqueuelen 1000  (Ethernet)
      RX packets 0  bytes 0 (0.0 B)
      RX errors 0  dropped 0  overruns 0  frame 0
      TX packets 0  bytes 0 (0.0 B)
```