Lab No:3

Windows Commands:

```
Administrator: Command Prompt

Microsoft Windows [Version 10.0.19045.2965]
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C:\WINDOWS\system32>ping www.google.com

Pinging www.google.com [142.250.181.100] with 32 bytes of data:
Reply from 142.250.181.100: bytes=32 time=141ms TTL=118
Reply from 142.250.181.100: bytes=32 time=144ms TTL=118
Reply from 142.250.181.100: bytes=32 time=149ms TTL=118
Reply from 142.250.181.100: bytes=32 time=185ms TTL=118

Ping statistics for 142.250.181.100:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:

Minimum = 141ms, Maximum = 185ms, Average = 154ms

C:\WINDOWS\system32>_
```

```
O
Administrator: Command Prompt
  :\WINDOWS\system32>ipconfig /all
Windows IP Configuration
   . . . . . : No
. . . . . : No
. . . . . : Home
  thernet adapter Ethernet:

        Media State
        ...
        ! Media disconnected

        Connection-specific DNS Suffix
        :
        !

        Description
        ...
        ! Intel(R) Ethernet C

        Physical Address
        ...
        48-0F-CF-2A-31-C3

                                                              : Intel(R) Ethernet Connection (3) I218-LM
: 48-0F-CF-2A-31-C3
    thernet adapter VirtualBox Host-Only Network:
  Connection-specific DNS SufflX

Description : VirtualBox Host-Only Ethernet Adapter
Physical Address : 0A-00-27-00-00-03

DHCP Enabled : No
Autoconfiguration Enabled : Yes
Link-local IPv6 Address : fe80::33c9:db8e:59ea:4e83%3(Preferred)

IPv4 Address : 192.168.56.1(Preferred)

Subnet Mask : 255.255.255.0

Default Gateway : DHCPv6 IAID : 705298471

DHCPv6 IAID : 705298471

DHCPv6 Client DUID : 00-01-00-01-2A-A1-72-58-48-0F-CF-2A-31-C3

DNS Servers : fe0:0:0:ffff::3%1
    Connection-specific DNS Suffix
    fec0:0:0:fffff::3%1
NetBIOS over Tcpip. . . . . . : Enabled
Wireless LAN adapter Local Area Connection* 1:
                                                                                                                                                                                                                                Activate Windows
    Media State . . . . . . . : Media disconnected
Connection-specific DNS Suffix . :
Description . . . . . . : Microsoft Wi-Fi Direct Virtual Adapter
                                                                                                                                                                                                                                                                    - 6 X
Administrator: Command Prompt
   ireless LAN adapter Local Area Connection* 2:
    Media State . . . . . : Media disconnected

Connection-specific DNS Suffix . :

Description . . . : Microsoft Wi-Fi Direct Virtual Adapter #2

Physical Address . . . : 36-02-86-7C-B0-91

DHCP Enabled . . . : Yes

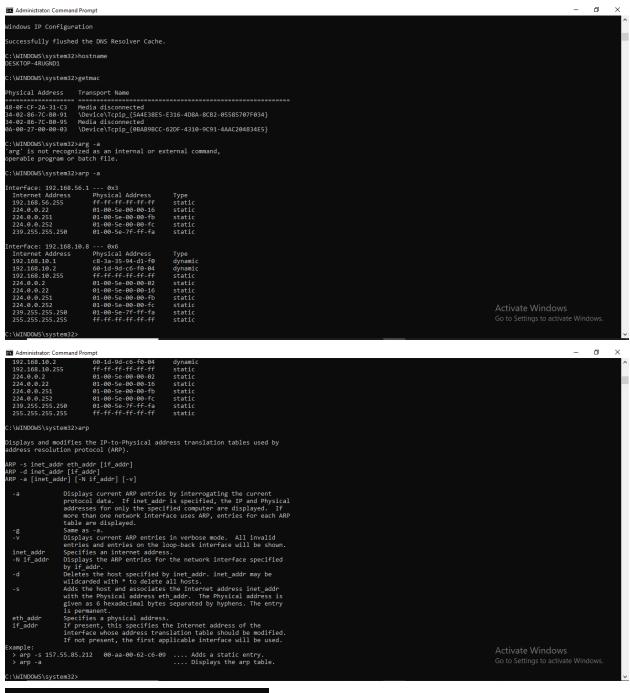
Autoconfiguration Enabled . . : Yes
Wireless LAN adapter Wi-Fi:
   thernet adapter Bluetooth Network Connection:
    Media State . . . . . . . . . . : Media disconnected Connection-specific DNS Suffix . :
    Connection-specific DNS Suffix : : Bluetooth Device (Personal Area Network)
Physical Address . : 34-02-86-7C-80-95
DHCP Enabled . : Yes
Autoconfiguration Enabled . : Yes
```

```
O
Administrator: Command Prompt
   \WINDOWS\system32>ipconfig /release
Windows IP Configuration
  o operation can be performed on Ethernet while it has its media disconnected.
o operation can be performed on Local Area Connection* 1 while it has its media disconnected.
o operation can be performed on Local Area Connection* 2 while it has its media disconnected.
o operation can be performed on Bluetooth Network Connection while it has its media disconnected.
  thernet adapter Ethernet:
    Media State . . . . . . . . . . : Media disconnected Connection-specific DNS Suffix . :
  thernet adapter VirtualBox Host-Only Network:
   Connection-specific DNS Suffix :
Link-local IPv6 Address . . : fe80::33c9:db8e:59ea:4e83%3
IPv4 Address . . : 192.168.56.1
Subnet Mask . . : 255.255.26
Default Gateway . . . . :
  ireless LAN adapter Local Area Connection* 1:
    Media State . . . . . . . . . : Media disconnected Connection-specific DNS Suffix . :
 ireless LAN adapter Local Area Connection* 2:
    Media State . . . . . . . . . . . . . . Media disconnected Connection-specific DNS Suffix . :
  ireless LAN adapter Wi-Fi:
   Connection-specific DNS Suffix : Link-local IPv6 Address . . . : fe80::8871:4933:7d4b:4664%6
Default Gateway . . . . :
    Media State . . . . . . . . . : Media disconnected Connection-specific DNS Suffix . :
C:\WINDOWS\system32>
  :\WINDOWS\system32>ipconfig /renew
 indows IP Configuration
 o operation can be performed on Ethernet while it has its media disconnected.
Oo operation can be performed on Local Area Connection* 1 while it has its media disconnected.
Oo operation can be performed on Local Area Connection* 2 while it has its media disconnected.
Oo operation can be performed on Bluetooth Network Connection while it has its media disconnected.
Ethernet adapter Ethernet:
    Media State . . . . . . . . . : Media disconnected Connection-specific DNS Suffix . :
  thernet adapter VirtualBox Host-Only Network:
    Connection-specific DNS Suffix : Link-local IPv6 Address . . : fe80::33c9:db8e:59ea:4e83%3 IPv4 Address . . : 192.168.56.1 Subnet Mask . . . : 255.255.0 Default Gateway . . :
    Media State . . . . . . . . . : Media disconnected Connection-specific DNS Suffix . :
Wireless LAN adapter Local Area Connection* 2:
    Media State . . . . . . . . . : Media disconnected Connection-specific DNS Suffix . :
 ireless LAN adapter Wi-Fi:
    Connection-specific DNS Suffix : Home
Link-local IPv6 Address . . : fe80::8871:4933:7d4b:4664%6
IPv4 Address . . : 192.168.10.8
Subnet Mask . . : 255.255.255.0
Default Gateway . . : 192.168.10.1
                                                                                                                                                                                                                                                   Activate Windows
  thernet adapter Bluetooth Network Connection:
    Media State . . . . . . . . . : Media disconnected Connection-specific DNS Suffix . :
```

```
O
Administrator: Command Prompt
  \WINDOWS\system32>ipconfig /?
   GE:
ipconfig [/allcompartments] [/? | /all |
/renew [adapter] | /release [adapter] |
/renew [adapter] | /release [adapter] |
/flushdns | /displaydns | /registerdns |
/showclassid adapter |
/setclassid adapter |
/showclassid6 adapter |
/showclassid6 adapter |
/showclassid6 adapter |
 nere
adapter
                          Connection name (wildcard characters * and ? allowed, see examples)
                           Display this help message
Display full configuration information.
Release the IPv4 address for the specified adapter.
Release the IPv6 address for the specified adapter.
Renew the IPv6 address for the specified adapter.
Renew the IPv6 address for the specified adapter.
Renew the IPv6 address for the specified adapter.
Refershes all DHCP leases and re-registers DNS names
Display the contents of the DNS Resolver Cache.
Displays all the dhcp class IDs allowed for adapter.
Modifies the dhcp class id.
Displays all the IPv6 DHCP class IDs allowed for adapter.
Modifies the IPv6 DHCP class IDs allowed for adapter.
       /?
/all
/release
/release6
/renew
/renew6
/flushdns
       /registerdns
/displaydns
/showclassid
/setclassid
/showclassid6
/setclassid6
The default is to display only the IP address, subnet mask and default gateway for each adapter bound to TCP/IP.
 or Release and Renew, if no adapter name is specified, then the IP address
eases for all adapters bound to TCP/IP will be released or renewed.
                                                                                                                                                                Activate Windows
 xamples:
                                     ... Show information
... Show detailed information
For Setclassid and Setclassid6, if no ClassId is specified, then the ClassId is removed.
Examples:
                                                                                ... Show information
        > ipconfig
        > ipconfig /all
                                                                              ... Show detailed information
        > ipconfig /renew
                                                                              ... renew all adapters
        > ipconfig /renew EL*
                                                                             ... renew any connection that has its
                                                                                       name starting with EL
       or
        > ipconfig /allcompartments ... Show information about all
                                                                                          compartments

ightarrow ipconfig /allcompartments /all ... Show detailed information about all
                                                                                          compartments
C:\WINDOWS\system32>
C:\WINDOWS\system32>ipconfig /flushdns
Windows IP Configuration
Successfully flushed the DNS Resolver Cache.
```

C:\WINDOWS\system32>



C:\WINDOWS\system32>nslookup Default Server: Tenda.Home Address: 192.168.10.1

```
C:\WINDOWS\system32>netstat -f
Active Connections
 Proto Local Address
                            Foreign Address
                                                 State
 TCP
       192.168.10.8:64742
                            20.198.119.143:https ESTABLISHED
       192.168.10.8:64743
192.168.10.8:64745
                            TCP
 TCP
                            ec2-34-237-73-95.compute-1.amazonaws.com:https ESTABLISHED
       192.168.10.8:64755
                            192.168.10.2:8009
                                                ESTABLISHED
 TCP
        192.168.10.8:64760
                            192.168.10.2:8009
                                                ESTABLISHED
       192.168.10.8:64764
192.168.10.8:64765
                            wb-in-f188.1e100.net:5228 ESTABLISHED
192.168.10.2:8008 ESTABLISHED
 TCP
        192.168.10.8:64766
                            192.168.10.2:8008
                                                 ESTABLISHED
                            TCP
       192.168.10.8:64767
 :\WINDOWS\svstem32>
```

Administrator: Command Promp	ot			-	0
icrosoft Windows [Versi	on 10.0.19045.3086]				
	n. All rights reserved.				
\WINDOWS\system32>task	list				
mage Name	PID Session Name	Session#	Mem Usage		
ystem Idle Process	0 Services		8 K		
/stem	4 Services		68 K		
egistry	100 Services		33,176 K		
mss.exe	416 Services		656 K		
rss.exe	588 Services		6,020 K		
ininit.exe	676 Services		7,512 K		
ervices.exe	748 Services		10,516 K		
sass.exe	788 Services		20,552 K		
/chost.exe	908 Services		36,456 K		
ontdrvhost.exe	932 Services		2,636 K		
/chost.exe	612 Services		21,612 K		
chost.exe	1036 Services		8,896 K		
chost.exe	1228 Services		6,104 K		
/chost.exe	1252 Services		7,732 K		
/chost.exe	1288 Services		11,716 K		
/chost.exe	1300 Services		11,572 K		
vchost.exe	1388 Services		10,456 K		
chost.exe	1516 Services		16,344 K		
/chost.exe	1580 Services		6,724 K		
chost.exe	1612 Services		15,496 K		
/chost.exe	1688 Services		8,304 K		
chost.exe	1808 Services		21,200 K		
/chost.exe	1816 Services		19,816 K		
chost.exe	1848 Services		7,064 K		
/chost.exe	1940 Services		11,840 K		
rchost.exe	1648 Services		10,008 K		
/chost.exe	2076 Services		21,108 K		
/chost.exe	2084 Services		12,100 K		
/chost.exe	2120 Services		7,828 K		
/chost.exe	2172 Services		7,440 K		
/chost.exe	2184 Services		89,980 K		
/chost.exe	2192 Services		5,408 K		
emory Compression	2288 Services		56,080 K	Activate Windows	
vchost.exe	2324 Services		8,412 K		
vchost.exe	2360 Services		13,944 K	Go to Settings to activate W	
gfxCUIService.exe	2392 Services		9,572 K		
vchost.exe	2400 Services	0	10.844 K		

Administrator: Command Prompt	2202	0	9,572 K		Ø
txcuiservice.exe chost.exe	2392 Services 2400 Services	0 0	9,5/2 K 10,844 K		
chost.exe	2468 Services	9	8,268 K		
chost.exe	2476 Services	9	7,516 K		
chost.exe	2528 Services	9	10,512 K		
chost.exe	2624 Services	9	20,584 K		
chost.exe	2720 Services	9	14,812 K		
kAudioService64.exe	2796 Services	9	9,364 K		
chost.exe	2936 Services	9	9,664 K		
chost.exe	2944 Services	9	6,348 K		
chost.exe	2952 Services	9	10,960 K		
chost.exe	2240 Services	9	7,352 K		
chost.exe	3200 Services	9	21.224 K		
chost.exe	3256 Services	9	14,292 K		
oolsv.exe	3332 Services	9	13,412 K		
chost.exe	3372 Services	9	14,808 K		
chost.exe	3396 Services	9	19,752 K		
chost.exe	3436 Services	9	7,540 K		
chost.exe	3716 Services	9	30,676 K		
chost.exe	3724 Services	9	13,960 K		
ficeClickToRun.exe	3736 Services	9	42,748 K		
CSEvtSvc.exe	3744 Services	9	7,204 K		
chost.exe	3752 Services	9	29,160 K		
tKeyServiceUWP.exe	3768 Services	9	9,412 K		
tsiva.exe	3812 Services	e e	4,628 K		
chost.exe	3844 Services	e e	7,556 K		
chost.exe	3868 Services	e	10,780 K		
chost.exe	3884 Services	ě	10,084 K		
rvicehost.exe	3908 Services	ē	44,812 K		
chost.exe	3916 Services	e	8,700 K		
VPNClientSvc.exe	4004 Services	ě	11.544 K		
nTPEnhService.exe	4036 Services	ě	4,568 K		
chost.exe	4044 Services	ø	5,728 K		
chost.exe	4064 Services	ě	5,240 K		
lWBFPolicyService.exe	4056 Services	ő	3,956 K		
chost.exe	3584 Services	a	23,588 K		
chost.exe	4100 Services	ø	5,404 K		
MpEng.exe	4172 Services	ø	317,088 K		
chost.exe	4336 Services	9	6,640 K		
nWlanWwanSwitchingServi	4580 Services	e e	11,312 K		
DFHost.exe	5756 Services	e e	12,108 K	Activate Windows	
chost.exe	5968 Services	ē	12,532 K		
lhost.exe	5216 Services	ē	12,108 K		
chost.exe	5672 Services	ē	8,348 K		

Administrator: Command Prompt					- 0	×
dllhost.exe	5216 Services	0	12,108 K			^
svchost.exe	5672 Services		8,348 K			
svchost.exe	5912 Services		8,796 K			
svchost.exe	7292 Services		7,844 K			
svchost.exe	7520 Services		22,316 K			
svchost.exe	7952 Services		21,088 K			
NisSrv.exe	8032 Services		10,616 K			
svchost.exe	8156 Services		10,552 K			
svchost.exe	7124 Services		10,996 K			
svchost.exe	2100 Services		25,316 K			
SearchIndexer.exe	3216 Services		54,200 K			
SecurityHealthService.exe	1548 Services		22,404 K			
svchost.exe	3764 Services		20,468 K			
GoogleCrashHandler.exe	5840 Services		1,340 K			
GoogleCrashHandler64.exe	7416 Services		1,212 K			
svchost.exe	7344 Services		12,396 K			
SgrmBroker.exe	8092 Services		8,536 K			
svchost.exe	1372 Services		12,120 K			
svchost.exe	9352 Services		10,784 K			
svchost.exe	120 Services		9,832 K			
svchost.exe	6800 Services		21,904 K			
svchost.exe	3828 Services		36,552 K			
WmiPrvSE.exe	7236 Services		20,116 K			
svchost.exe	3340 Services		7,088 K			
rsVPNSvc.exe	13988 Services		91,728 K			
svchost.exe	11880 Services		8,484 K			
svchost.exe	8028 Services		9,908 K			
svchost.exe	11996 Services		35,892 K			
csrss.exe	7116 Console	15	7,288 K			
winlogon.exe	7840 Console	15	11,768 K			
fontdrvhost.exe	11652 Console	15	6,348 K			
dwm.exe	13852 Console		81,196 K			
svchost.exe	3972 Services		6,664 K			
uihost.exe	1080 Console		27,748 K			
RAVBg64.exe	12292 Console		15,068 K			
RAVBg64.exe	1864 Console	15	15,872 K			
SynTPEnh.exe	9068 Console	15	22,624 K			
HPHotkeyNotification.exe	2268 Console	15	30,932 K			
sihost.exe	7480 Console	15	27,804 K			
svchost.exe	6436 Console	15	21,980 K	Activate Windows		
svchost.exe	5480 Console	15	34,412 K			
taskhostw.exe	11984 Console	15	12,756 K		e windows.	
SSScheduler.exe	5848 Console	15	9,892 K			
taskhostw.exe	13024 Console	15	20,588 K			~

Administrator: Command Prompt					- 0	×
taskhostw.exe	11984 Console	15	12,756 K			^
SSScheduler.exe	5848 Console	15	9.892 K			
taskhostw.exe	13024 Console	15	20,588 K			
McUpdaterModule.exe	7644 Console	15	4,048 K			
ctfmon.exe	8564 Console		21,408 K			
explorer.exe	10204 Console		153,692 K			
MicrosoftEdgeUpdate.exe	920 Services		3,184 K			
softinfo.exe	11600 Console		7,312 K			
svchost.exe	8604 Console		19,044 K			
igfxHK.exe	6308 Console		11,384 K			
igfxTray.exe	4128 Console		13,000 K			
StartMenuExperienceHost.e	2900 Console		73,376 K			
SynTPHelper.exe	7264 Console		6,080 K			
RuntimeBroker.exe	9976 Console		28,460 K			
rsAppUI.exe	13100 Console		104,628 K			
SearchApp.exe	1244 Console		235,440 K			
RuntimeBroker.exe	5884 Console		43,360 K			
RuntimeBroker.exe	592 Console		19,468 K			
SecurityHealthSystray.exe	5832 Console		10,176 K			
RtkNGUI64.exe	9552 Console	15	14,936 K			
softinfo.exe	11776 Console		22,620 K			
msedge.exe	11104 Console	15	104,588 K			
msedge.exe	11152 Console	15	8,440 K			
Cortana.exe	7468 Console		68,872 K			
msedge.exe	7792 Console	15	29,460 K			
msedge.exe	13696 Console		31,852 K			
msedge.exe	5484 Console	15	18,784 K			
rsAppUI.exe	6340 Console	15	89,256 K			
svchost.exe	8212 Console		22,392 K			
RuntimeBroker.exe	11100 Console		19,160 K			
rsAppUI.exe	1672 Console		77,252 K			
WmiPrvSE.exe	13004 Services		10,700 K			
svchost.exe	2924 Console	15	23,420 K			
rsAppUI.exe	12048 Console	15	49,148 K			
svchost.exe	12876 Services		23,856 K			
chrome.exe	5704 Console	15	215,280 K			
chrome.exe	8276 Console	15	10,144 K			
chrome.exe	5596 Console	15	161,468 K			
chrome.exe	2344 Console	15	49,244 K			
chrome.exe	11352 Console	15	21,468 K	Activate Windows		
chrome.exe	8384 Console	15	64,452 K	Go to Settings to activa		
chrome.exe	12316 Console	15	50,756 K	GO LO SELLINGS LO ACTIVA	e windows	
chrome.exe	9468 Console	15	68,972 K			
MicrosoftEdgeUpdate.exe	8416 Services	0	10,220 K			~

Administrator: Command Prompt

MicrosoftEdgeUpdate.exe	8416	Services	0	10,220 K	(
CompatTelRunner.exe	5456	Services	0	2,620 K	
chrome.exe	3904	Console	15	69,876 K	(
chrome.exe	14032	Console	15	75,568 K	(
rsAppUI.exe	13668	Console	15	71,940 K	(
cmd.exe	13320	Console	15	4,616 K	(
conhost.exe	3184	Console	15	13,280 K	(
browserhost.exe	14104	Console	15	10,516 K	(
conhost.exe	6588	Services	0	1,932 K	(
TextInputHost.exe	14284	Console	15	44,304 K	(
CompatTelRunner.exe	10684	Services	0	31,160 K	(
PhoneExperienceHost.exe	10036	Console	15	141,440 K	(
MicrosoftEdgeUpdate.exe	6480	Services	0	19,580 K	(
chrome.exe	12364	Console	15	265,272 K	(
chrome.exe	9704	Console	15	21,996 K	(
RuntimeBroker.exe	12980	Console	15	14,480 K	(
chrome.exe	11964	Console	15	47,044 K	(
MicrosoftEdge_X64_114.0.1	6836	Services	0	8,240 K	(
setup.exe	9408	Services	0	5,752 K	(
McCHSvc.exe	8812	Services	0	32,516 K	(
chrome.exe	3556	Console	15	30,976 K	(
svchost.exe	9480	Services	0	16,804 K	(
powershell.exe	7504	Services	0	25,488 K	(
conhost.exe	14280	Services	0	10,592 K	(
dllhost.exe	12396	Console	15	14,540 K	(
smartscreen.exe	14296	Console	15	24,164 K	(
audiodg.exe	7308	Services	0	19,320 K	(
powershell.exe	11872	Services	0	25,636 K	
conhost.exe	2608	Services	0	11,076 K	(
cmd.exe	11856	Console	15	5,108 K	(
conhost.exe	14188	Console	15	19,776 K	(
svchost.exe	13080	Services	0	8,768 K	(
tasklist.exe	5680	Console	15	9,800 K	

```
C:\WINDOWS\system32>Taskkill /PID 920 /F
SUCCESS: The process with PID 920 has been terminated.
```

Linux Commands:

```
usage: ssh [-46AaCfGgKkMNnqsTtVvXxYy] [-B bind_interface]
              [-b bind_address] [-c cipher_spec] [-D [bind_address:]port]
              [-E log_file] [-e escape_char] [-F configfile] [-I pkcs11]
[-i identity_file] [-J [user@]host[:port]] [-L address]
[-l login_name] [-m mac_spec] [-0 ctl_cmd] [-o option] [-p port]
[-Q query_option] [-R address] [-S ctl_path] [-W host:port]
[-w local_tun[:remote_tun]] destination [command]
user:~$ pwd
/home/user
user:~$ whoami
user
                                                                                              Activate Windows
 user:~$ cd /
 user:/$ cd ~/target
 user:~/target$
 user:~$ ls
 catkin ws
                       target
 user:~$ ls -1
 total 8
 drwxr-xr-x 5 user user 4096 Jun 17 18:08 catkin ws
 drwxr-xr-x 2 user user 4096 Jun 17 18:10 target
 ser:~$ ls -la
total 92
drwxr-xr-x 11 user user 4096 Jun 17 18:10 .
drwxr-xr-x 1 root root 4096 Jun 17 18:08 ...
-rw-r--r- 1 user user 5609 Jun 17 18:08 ...
-rw-r--r- 1 user user 3579 Jun 17 18:08 .bash_aliases
-rw-r--r- 1 user user 5609 May 2 13:37 .bashrc
 -rw-r--r-- 1 user user 5609 May 2 13:37 .bashrc
-rw-r--r-- 1 root root 225 Jun 17 18:08 .bashrc_bridge
 -rw-r--r-- 1 root root 116 Jun 17 18:08 .bashrc_ros1
-rw-r--r-- 1 root root 240 Jun 17 18:08 .bashrc_ros2
drwxr-xr-x 3 user user 4096 Jun 17 15:55 .cache
                                                             n ws python3 -> /usr/local/share/catkin ws python3
                                34 Jun 17 18:08 .c.
lrwxrwxrwx 1 root root
                                                                                            Activate Windows
                                25 Jun 17 18:08 .gazebo -> /home/simulations/.gazebo
lrwxrwxrwx
               1 user user
                                 0 Jun 17 18:08 .history
               1 user user
drwxr-xr-x 3 user user 4096 Jun 17 15:55 .ignition drwxr-xr-x 2 user user 4096 Jun 17 18:08 .labelImg
                               22 Jun 17 18:08 .npmrc
               1 user user
                                                              v -> /usr/local/share/venvs/py3venv
lrwxrwxrwx
               1 user user
                                30 Jun 17 18:08
               1 user user 215 Jun 17 18:08 .pylintrc
-rw-r--r--
                               33 Jun 17 18:08 .r
                                                                  s -> /us
lrwxrwxrwx
              1 user user
                                22 Jun 17 18:08 .ros -> /home/simulations/.ros
lrwxrwxrwx
               1 user user
drwxr-xr-x 2 user user 4096 Jun 17 18:08 .rviz
drwxr-xr-x 2 user user 4096 Jun 17 18:08 .sdformat
                                                                                            Activate Windows
```

user:~\$ cd ~ user:~\$