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01/09/21

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SDS Page No.
Date

107 Practical - NUT

Aim = (p) learn about sudo privileges and unix shell commands such as cat, ls, cd etc

i) df: This command is used to show the amount of disk space that is free on the system
eg = \$ df

Filesys 1k-blocks used Available use % mounted on

ii) mkdir - This command is used to create directory
eg = \$ mkdir vol0 \$ ls
vol0

iii) cd: This command is used to change directory
eg = \$ cd vol0
~/vol0 \$

iv) touch - This command allows you to create a new file
eg = \$ touch update.txt

v) ls: This command is used to list the contents of the directory
eg = \$ ls
update.txt

vi) echo: This command is used to list content in a file
eg = \$ echo Hello there! >> update.txt

vii) head - This command prints the first 10 lines of a file

eg. \$ head update.txt
Hello there

viii) tail - This command prints the last 10 lines of a file
eg. \$ tail update.txt
Hello there

ix) rm - This command is used to delete a directory
eg. \$ rm /home/ancuwrk

x) ping - This command is used to check the sent and received packets

eg. \$ ping 8.8.8.8
50(84) bytes of data
8 packets transmitted: 0% packets lost

xi) history - This command is used to view the previously executed command

eg. history
6 ping

xii) clear - This command is used to clear the terminal
eg. \$ clear

xiii) man - This command shows the manual of any particular command
eg. man ping

eg more
synopsis
description
ophas

B) Edit text files with nano and cat editor

GNU nano = It is an command line text editor for Unix and Linux operating system. It includes all the basic functionality like system highlighting, multiple buffers, search and replace with re, etc

Commands-

- ⇒ Installing nano = `$sudo apt install nano`
- ⇒ opening & creating file = `$ nano "filename.txt"`
- ⇒ editing the existing file = `$ nano "filename.txt"`
- ⇒ To enable spell check in nano = `$sudo apt install`

Shortcuts

- Open a file from within nano: `Ctrl + v`
- Save the current file buffer to disk: `Ctrl + o`
- Create the current file buffer: `Ctrl + x`
- Select a region for a cut/paste operation: `Alt + a`
- Copy a highlighted region into the clipboard: `Alt + c`
- Paste a highlighted region into the clipboard: `Alt + p`
- Cut a highlighted region into the clipboard: `Ctrl + k`
- Go to beginning of file: `Alt + 1`
- Go to end of file: `Alt + /`
- Tab: `Ctrl + i`

- Backspace = $chr + h$
- Delete = $chr + d$
- Save forward one successful = $chr + v$
- move backward one successful = $chr + y$
- Got the target Time Number = $AH + g$

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Machine View

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onworks@onworks-Standard-PC-l440FX-PIIX-1996: ~

onworks@onworks-Standard-PC-l440FX-PIIX-1996:~/M\$ head update.txt
Patch notes will be announced soon
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~/M\$ tail update.txt
Patch notes will be announced soon
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~/M\$ rm update.txt
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~/M\$ ls
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~/M\$ cd
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~\$ rmdir M
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~\$ pwd
/home/onworks
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~\$ ping
ping: usage error: Destination address required
onworks@onworks-Standard-PC-l440FX-PIIX-1996:~\$ ping 0.0.0.0
PING 0.0.0.0 (127.0.0.1) 56(84) bytes of data.
64 bytes from 127.0.0.1: icmp_seq=1 ttl=64 time=0.060 ms
64 bytes from 127.0.0.1: icmp_seq=2 ttl=64 time=0.043 ms
64 bytes from 127.0.0.1: icmp_seq=3 ttl=64 time=0.048 ms
64 bytes from 127.0.0.1: icmp_seq=4 ttl=64 time=0.073 ms
64 bytes from 127.0.0.1: icmp_seq=5 ttl=64 time=0.043 ms
64 bytes from 127.0.0.1: icmp_seq=6 ttl=64 time=0.059 ms
64 bytes from 127.0.0.1: icmp_seq=7 ttl=64 time=0.042 ms
64 bytes from 127.0.0.1: icmp_seq=8 ttl=64 time=0.048 ms
64 bytes from 127.0.0.1: icmp_seq=9 ttl=64 time=0.061 ms
64 bytes from 127.0.0.1: icmp_seq=10 ttl=64 time=0.047 ms
64 bytes from 127.0.0.1: icmp_seq=11 ttl=64 time=0.050 ms
64 bytes from 127.0.0.1: icmp_seq=12 ttl=64 time=0.050 ms
64 bytes from 127.0.0.1: icmp_seq=13 ttl=64 time=0.052 ms
64 bytes from 127.0.0.1: icmp_seq=14 ttl=64 time=0.049 ms
64 bytes from 127.0.0.1: icmp_seq=15 ttl=64 time=0.050 ms

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onworks@onworks-Standard-PC-i440FX-PIIX-1996: ~

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
udev	1467132	0	1467132	0%	/dev
tmpfs	299064	1424	297640	1%	/run
/dev/sda5	30313412	7192968	21557564	26%	/
tmpfs	1495304	0	1495304	0%	/dev/shm
tmpfs	5120	4	5116	1%	/run/lock
tmpfs	1495304	0	1495304	0%	/sys/fs/cgroup
/dev/loop1	261760	261760	0	100%	/snap/gnome-3-34-1804/36
/dev/loop2	63616	63616	0	100%	/snap/gtk-common-themes/1506
/dev/loop0	56320	56320	0	100%	/snap/core18/1880
/dev/loop3	51072	51072	0	100%	/snap/snap-store/467
/dev/loop4	30720	30720	0	100%	/snap/snapd/8542
/dev/sda1	523248	4	523244	1%	/boot/efi
tmpfs	299060	28	299032	1%	/run/user/1000

```
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~$ df
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~$ cd MS
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/MS$ touch update.txt
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/MS$ ls
update.txt
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/MS$ echo
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/MS$ echo Patch notes will be announced soon >>update.txt
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/MS$ head update.txt
Patch notes will be announced soon
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/MS$ tail update.txt
Patch notes will be announced soon
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/MS$ rm update.txt
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~/MS$ ls
```

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onworks@onworks-Standard-PC-I440FX-PIIX-1996: ~

Terminal

onworks

Trash

Activities

Terminal

onworks@onworks-Standard-PC-I440FX-PIIX-1996: ~

PING(8)

iputils

PING(8)

NAME

ping - send ICMP ECHO_REQUEST to network hosts

SYNOPSIS

ping [-aAbBdDfhLnOqrRUvV46] [-c count] [-F flowlabel] [-t interval] [-I interface] [-l preload] [-m mark] [-M pmtudisc_option] [-N nodeinfo_option] [-w deadline] [-W timeout] [-p pattern] [-Q tos] [-s packetsize] [-S sndbuf] [-t ttl] [-T timestamp_option] [hop...] {destination}

DESCRIPTION

ping uses the ICMP protocol's mandatory ECHO_REQUEST datagram to elicit an ICMP ECHO_RESPONSE from a host or gateway. ECHO_REQUEST datagrams ("pings") have an IP and ICMP header, followed by a struct timeval and then an arbitrary number of "pad" bytes used to fill out the packet.

ping works with both IPv4 and IPv6. Using only one of them explicitly can be enforced by specifying -4 or -6.

ping can also send IPv6 Node Information Queries (RFC4620). Intermediate hops may not be allowed, because IPv6 source routing was deprecated (RFC5095).

OPTIONS

-4 Use IPv4 only.

Manual page ping(8) line 1 (press h for help or q to quit)

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onworks@onworks-Standard-PC-i440FX-PIIX-1996: ~

64 bytes from 127.0.0.1: icmp_seq=131 ttl=64 time=0.051 ms
^C
--- 0.0.0.0 ping statistics ---
131 packets transmitted, 131 received, 0% packet loss, time 133099ms
rtt min/avg/max/mdev = 0.037/0.048/0.094/0.008 ms
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~\$ man cd
No manual entry for cd
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~\$ man ping
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~\$ history
1 sudo su -
2 df
3 mkdir MS
4 cd MS
5 touch update.txt
6 ls
7 echo
8 echo Patch notes will be announced soon >>update.txt
9 head update.txt
10 tail update.txt
11 rm update.txt
12 ls
13 cd
14 rmdir MS
15 pwd
16 ping
17 ping 0.0.0.0
18 man cd
19 man ping
20 history
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~\$ clear

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Machine View

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onworks@onworks-Standard-PC-I440FX-PIIX-1996: ~

GNU nano 4.8 filename.txt Modified
here comes the party :)

Get Help

Write Out

Where Is

Cut Text

Justify

Cur Pos

Exit

Read File

Replace

Paste Text

To Spell

Go To Line

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onworks@onworks-Standard-PC-i440FX-PIIX-1996: ~

onworks

Trash

```
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~$ sudo apt install nano
[sudo] password for onworks:
Reading package lists... Done
Building dependency tree
Reading state information... Done
nano is already the newest version (4.8-1ubuntu1).
nano set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 267 not upgraded.
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~$ nano 'filename.txt'
onworks@onworks-Standard-PC-i440FX-PIIX-1996:~$
```

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onworks@onworks-Standard-PC-I440FX-PIIX-1996: ~

GNU nano 4.8 filename.txt Modified
here comes the party :)
Neeraj T073

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Exit

Read File

Replace

Paste Text

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