```
user@user-VirtualBox: ~
user@user-VirtualBox:~$ touch tut1
user@user-VirtualBox:~$ ls -l
```

```
user@user-VirtualBox:~$ gedit tut1
```

```
drwxrwxr-x   5 user user      4096 Apr  6
user@user-VirtualBox:~$ gedit tut1
user@user-VirtualBox:~$ cat tut1
test
1234
user@user-VirtualBox:~$ cat login.js
```

```
user@user-VirtualBox:~$ head
```

```
user@user-VirtualBox:~$ tail login.js
```

```
user@user-VirtualBox:~$ cp tut1 /var/www/html
cp: cannot create regular file '/var/www/html/tut1': Permission denied
user@user-VirtualBox:~$ sudo cp tut1 /var/www/html
[sudo] password for user:
```
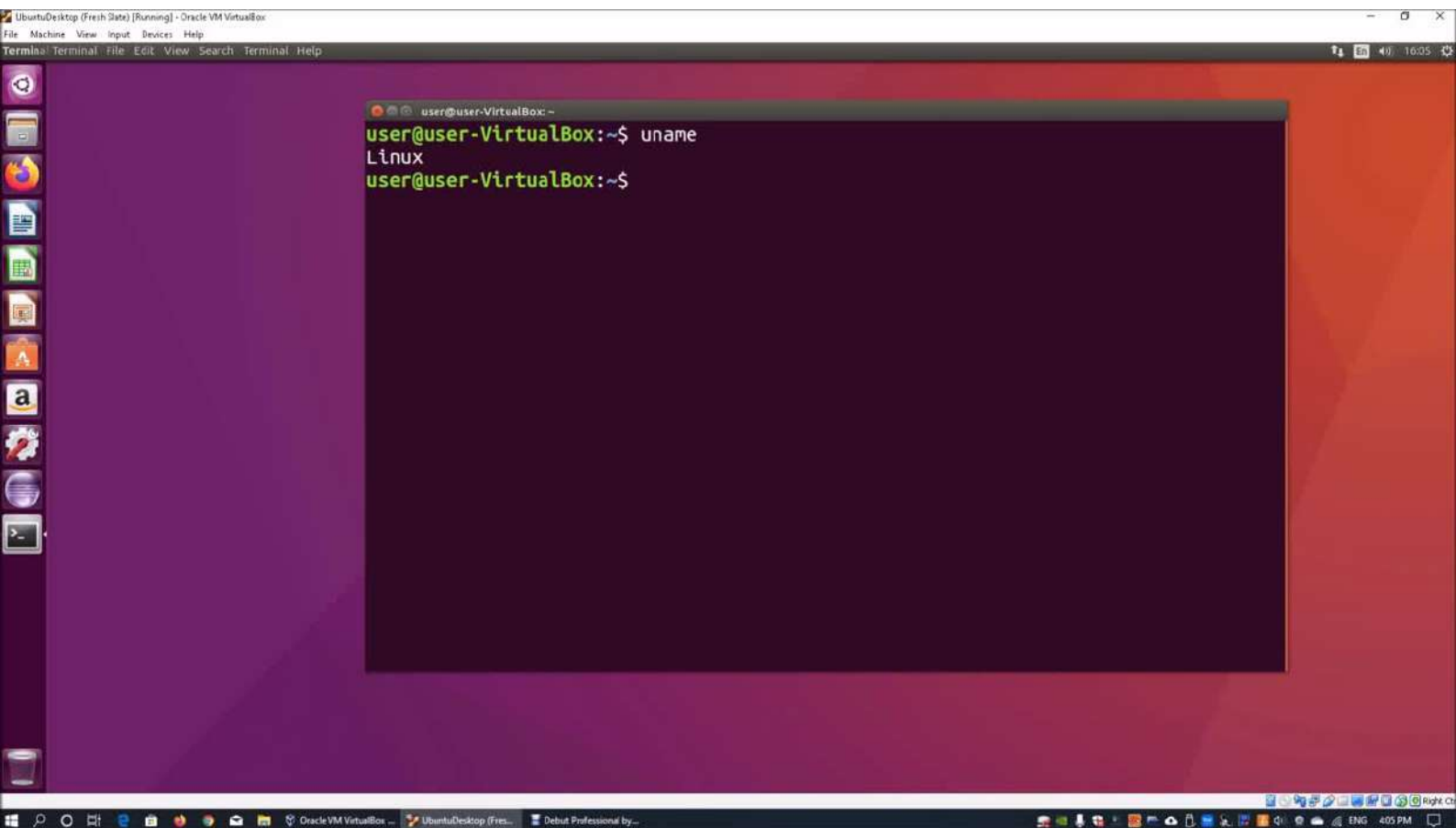
```
user@user-VirtualBox:~$ ls /var/www/html
index.html    tut1
user@user-VirtualBox:~$
```

```
mv: cannot move '/var/www/html/tut1' to './tut1': Permiss
user@user-VirtualBox:~$ sudo mv /var/www/html/tut1 ./
user@user-VirtualBox:~$
```

```
user@user-VirtualBox:~$ ls /var/www/html
index.html
user@user-VirtualBox:~$
```

```
user@user-VirtualBox: ~

user@user-VirtualBox:~$ uname
Linux
user@user-VirtualBox:~$ man uname
user@user-VirtualBox:~$ uname -a
Linux user-VirtualBox 4.4.0-170-generic #199-Ubuntu SMP Thu Nov 14 01:45:04 UTC
2019 x86_64 x86_64 x86_64 GNU/Linux
user@user-VirtualBox:~$ ps
  PID TTY          TIME CMD
 3868 pts/4    00:00:00 bash
 3994 pts/4    00:00:00 ps
user@user-VirtualBox:~$ man ps
user@user-VirtualBox:~$ ps -aux
```

```
kill 4018,4066,4128,4169
128,4169: arguments must be process or job IDs
kill 4018
```

```
user@user-VirtualBox:~$ kill 4018
user@user-VirtualBox:~$ service
Usage: service < option >·| --status-all | [ service_name [ command | --full-
user@user-VirtualBox:~$
```

```
user@user-VirtualBox:~$ service --status-all
```

```
user@user-VirtualBox:~$ man service
user@user-VirtualBox:~$ service apache2 start
```

```
user@user-VirtualBox:~$ man service
user@user-VirtualBox:~$ service apache2 start
user@user-VirtualBox:~$ service apache2 status
```

```
user@user-VirtualBox:~$ ifconfig
enp0s3    Link encap:Ethernet  HWaddr 08:00:27:5c:80:44
          inet addr:192.168.1.20  Bcast:192.168.1.255  Mask:255.255.255.0
          inet6 addr: fe80::de1d:9da5:e801:1d81/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:9677 errors:0 dropped:0 overruns:0 frame:0
          TX packets:3882 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:10598396 (10.5 MB)  TX bytes:312316 (312.3 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:765 errors:0 dropped:0 overruns:0 frame:0
          TX packets:765 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:66704 (66.7 KB)  TX bytes:66704 (66.7 KB)
```

If no option is specified, **-P** is assumed.

NOTE: your shell may have its own version of pwd, which usually super-
sedes the version described here. Please refer to your shell's docu-
mentation for details about the options it supports.

AUTHOR

Written by Jim Meyering.

REPORTING BUGS

GNU coreutils online help: <http://www.gnu.org/software/coreutils/>
Report pwd translation bugs to <http://translationproject.org/team/>

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GPL version 3 or later <http://gnu.org/licenses/gpl.html>.
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There is NO WARRANTY, to the extent permitted by law.

SEE ALSO

getcwd(3)

Manual page pwd(1) line 22 (press h for help or q to quit)

```
user@user-VirtualBox:~$ ls
app.js              examples.desktop    node.js_userlogin_template    snort_src
community-rules     login.html          node-login                    Templates
community.tar.gz    login.js            node_modules                  Videos
Desktop             LoginJS             Pictures                      views
Documents           LoiLogin            Public                        workspace
Downloads           Music               registered.tar.gz
user@user-VirtualBox:~$
```

--author
    with **-l**, print the author of each file

-b, --escape
    print C-style escapes for nongraphic characters

--block-size=<u>SIZE</u>
    scale sizes by SIZE before printing them; e.g., '--block-size=M'
    prints sizes in units of 1,048,576 bytes; see SIZE format below

-B, --ignore-backups
    do not list implied entries ending with ~

-c   with **-lt**: sort by, and show, ctime (time of last modification of
    file status information); with **-l**: show ctime and sort by name;
    otherwise: sort by ctime, newest first

-C   list entries by columns

--color[=<u>WHEN</u>]
    colorize the output; WHEN can be 'always' (default if omitted),
    'auto', or 'never'; more info below

```
user@user-VirtualBox:~$ man ls
user@user-VirtualBox:~$ ls -l
```

```
-rw-rw-r--    1 user  user       609 Mar 31   2019 app.js
drwxr-xr-x    2 1210  root      4096 Jan 17   2019 community-rules
-rw-rw-r--    1 user  user    319487 Jan 17   2019 community.tar.gz
drwxr-xr-x    2 user  user      4096 Jan 14   2017 Desktop
drwxr-xr-x    2 user  user      4096 Jan 14   2017 Documents
drwxr-xr-x    2 user  user      4096 Jan 17   2019 Downloads
-rw-r--r--    1 user  user      8980 Jan 14   2017 examples.desktop
-rw-rw-r--    1 user  user       379 Apr  6   2019 login.html
-rw-rw-r--    1 user  user      2628 Apr 13   2019 login.js
drwxrwxr-x    2 user  user      4096 Sep 15  15:39 LoginJS
drwxrwxr-x    2 user  user      4096 Sep 15  15:47 LoiLogin
drwxr-xr-x    2 user  user      4096 Jan 14   2017 Music
drwxrwxr-x    9 user  user      4096 Sep 15  15:28 node.js_userlogin_template
drwxrwxr-x    6 user  user      4096 Sep 15  15:15 node-login
drwxrwxr-x  242 user  user     12288 Mar 31   2019 node_modules
drwxr-xr-x    2 user  user      4096 Jan 14   2017 Pictures
drwxr-xr-x    2 user  user      4096 Jan 14   2017 Public
-rw-rw-r--    1 user  user 104981054 Jan 15   2019 registered.tar.gz
drwxrwxr-x    4 user  user      4096 Jan 17   2019 snort_src
drwxr-xr-x    2 user  user      4096 Jan 14   2017 Templates
drwxr-xr-x    2 user  user      4096 Jan 14   2017 Videos
drwxrwxr-x    2 user  user      4096 Apr  7   2019 views
drwxrwxr-x    3 user  user      4096 Apr  6   2019 workspace
```

```
drwxr-xr-x   2 user user        4096 Jan 14  2017 Public
-rw-rw-r--   1 user user 104981054 Jan 15  2019 registered.tar.gz
drwxrwxr-x   4 user user        4096 Jan 17  2019 snort_src
drwxr-xr-x   2 user user        4096 Jan 14  2017 Templates
drwxr-xr-x   2 user user        4096 Jan 14  2017 Videos
drwxrwxr-x   2 user user        4096 Apr  7  2019 views
drwxrwxr-x   3 user user        4096 Apr  6  2019 workspace
user@user-VirtualBox:~$ man cd
No manual entry for cd
user@user-VirtualBox:~$ cd
user@user-VirtualBox:~$ cd
```

```
user@user-VirtualBox:~$ cd Publ
bash: cd: Publ: No such file or directory
user@user-VirtualBox:~$ cd Public
user@user-VirtualBox:~/Public$
```

```
user@user-VirtualBox:~/Public$ pwd
/home/user/Public
user@user-VirtualBox:~/Public$ cd ..
user@user-VirtualBox:~$ pwd
/home/user
user@user-VirtualBox:~$
```

```
user@user-VirtualBox:/$ mkdir abcdefg
mkdir: cannot create directory 'abcdefg': Permission denied
user@user-VirtualBox:/$ cd ~
user@user-VirtualBox:~$ mkdir abcdefg
user@user-VirtualBox:~$ ls -l
total 102940
drwxrwxr-x    2 user user      4096 Dec 22 16:02 abcdefg
-rw-rw-r--    1 user user       609 Mar 31  2019 app.js
drwxr-xr-x    2 1210 root      4096 Jan 17  2019 community-rules
-rw-rw-r--    1 user user    319487 Jan 17  2019 community.tar.gz
drwxr-xr-x    2 user user      4096 Jan 14  2017 Desktop
drwxr-xr-x    2 user user      4096 Jan 14  2017 Documents
drwxr-xr-x    2 user user      4096 Jan 17  2019 Downloads
-rw-r--r--    1 user user      8980 Jan 14  2017 examples.desktop
-rw-rw-r--    1 user user       379 Apr  6  2019 login.html
-rw-rw-r--    1 user user      2628 Apr 13  2019 login.js
drwxrwxr-x    2 user user      4096 Sep 15 15:39 LoginJS
drwxrwxr-x    2 user user      4096 Sep 15 15:47 LoiLogin
drwxr-xr-x    2 user user      4096 Jan 14  2017 Music
drwxrwxr-x    9 user user      4096 Sep 15 15:28 node.js_userlogin_template
drwxrwxr-x    6 user user      4096 Sep 15 15:15 node-login
drwxrwxr-x  242 user user     12288 Mar 31  2019 node modules
```

```
user@user-VirtualBox:~$ rmdir abcdefg/
user@user-VirtualBox:~$ ls -l
total 102936
-rw-rw-r--   1 user user      609 Mar 31  2019 app.js
drwxr-xr-x   2 1210 root     4096 Jan 17  2019 community-rules
-rw-rw-r--   1 user user   319487 Jan 17  2019 community.tar.gz
drwxr-xr-x   2 user user     4096 Jan 14  2017 Desktop
drwxr-xr-x   2 user user     4096 Jan 14  2017 Documents
drwxr-xr-x   2 user user     4096 Jan 17  2019 Downloads
-rw-r--r--   1 user user     8980 Jan 14  2017 examples.desktop
-rw-rw-r--   1 user user      379 Apr  6  2019 login.html
-rw-rw-r--   1 user user     2628 Apr 13  2019 login.js
drwxrwxr-x   2 user user     4096 Sep 15 15:39 LoginJS
drwxrwxr-x   2 user user     4096 Sep 15 15:47 LoiLogin
```

```
user@user-VirtualBox:~$ man df
```

NAME
       df - report file system disk space usage

SYNOPSIS
       df [OPTION]... [FILE]...

DESCRIPTION
       This manual page documents the GNU version of **df**. **df** displays the
       amount of disk space available on the file system containing each file
       name argument.   If no file name is given, the space available on all
       currently mounted file systems is shown. Disk space is shown in 1K
       blocks by default, unless the environment variable POSIXLY_CORRECT is
       set, in which case 512-byte blocks are used.

       If an argument is the absolute file name of a disk device node contain-
       ing a mounted file system, **df** shows the space available on that file
       system rather than on the file system containing the device node. This
       version of **df** cannot show the space available on unmounted file sys-
       tems, because on most kinds of systems doing so requires very non-
       portable intimate knowledge of file system structures.

```
user@user-VirtualBox:~$ man df
user@user-VirtualBox:~$ df
Filesystem     1K-blocks     Used Available Use% Mounted on
udev              486112        0    486112   0% /dev
tmpfs             101588     3636     97952   4% /run
/dev/sda1       19478204  7220156  11245568  40% /
tmpfs             507936      132    507804   1% /dev/shm
tmpfs               5120        4      5116   1% /run/lock
tmpfs             507936        0    507936   0% /sys/fs/cgroup
tmpfs             101588       40    101548   1% /run/user/1000
user@user-VirtualBox:~$
```

```
user@user-VirtualBox:~$ man df
user@user-VirtualBox:~$ df -H
Filesystem       Size   Used  Avail Use% Mounted on
udev             498M      0   498M   0% /dev
tmpfs            105M   3.8M   101M   4% /run
/dev/sda1         20G   7.4G    12G  40% /
tmpfs            521M   136k   520M   1% /dev/shm
tmpfs            5.3M   4.1k   5.3M   1% /run/lock
tmpfs            521M      0   521M   0% /sys/fs/cgroup
tmpfs            105M    41k   104M   1% /run/user/1000
user@user-VirtualBox:~$
```

```
root@kali:~# service apache2 status
Apache2 is running (pid 5388).
root@kali:~# service apache2 stop
[....] Stopping web server: apache2apache2: Could not reliably determine the server's full
 qualified domain name, using 127.0.1.1 for ServerName
[ ok waiting .
root@kali:~# service apache2 start
[....] Starting web server: apache2apache2: Could not reliably determine the server's full
 qualified domain name, using 127.0.1.1 for ServerName
. ok
root@kali:~# ps aux | grep apache
root       9547  0.0  0.7 154700 16176 ?        Ss   15:16   0:00 /usr/sbin/apache2 -k star
www-data   9567  0.0  0.3 154724  7356 ?        S    15:16   0:00 /usr/sbin/apache2 -k star
www-data   9568  0.0  0.3 154724  7356 ?        S    15:16   0:00 /usr/sbin/apache2 -k star
www-data   9569  0.0  0.3 154724  7356 ?        S    15:16   0:00 /usr/sbin/apache2 -k star
www-data   9570  0.0  0.3 154724  7356 ?        S    15:16   0:00 /usr/sbin/apache2 -k star
www-data   9571  0.0  0.3 154724  7356 ?        S    15:16   0:00 /usr/sbin/apache2 -k star
root       9576  0.0  0.0   7780  1340 pts/0    S+   15:17   0:00 grep apache
root@kali:~#
```

```
Server compiled with....
  -D APACHE_MPM_DIR="server/mpm/prefork"
  -D APR_HAS_SENDFILE
  -D APR_HAS_MMAP
  -D APR_HAVE_IPV6 (IPv4-mapped addresses enabled)
  -D APR_USE_SYSVSEM_SERIALIZE
  -D APR_USE_PTHREAD_SERIALIZE
  -D APR_HAS_OTHER_CHILD
  -D AP_HAVE_RELIABLE_PIPED_LOGS
  -D DYNAMIC_MODULE_LIMIT=128
  -D HTTPD_ROOT="/etc/apache2"
  -D SUEXEC_BIN="/usr/lib/apache2/suexec"
  -D DEFAULT_PIDLOG="/var/run/apache2.pid"
  -D DEFAULT_SCOREBOARD="logs/apache_runtime_status"
  -D DEFAULT_LOCKFILE="/var/run/apache2/accept.lock"
  -D DEFAULT_ERRORLOG="logs/error_log"
  -D AP_TYPES_CONFIG_FILE="mime.types"
  -D SERVER_CONFIG_FILE="apache2.conf"
root@kali:~# locate apache2.conf
/etc/apache2/apache2.conf
/usr/share/doc/apache2.2-common/examples/apache2/apache2.conf.gz
```

```
root@kali:~# gedit /etc/apache2/apache2.conf
```

Monitorix

Monitorix is a free, open source, lightweight system monitoring tool designed to monitor as many services and system resources as possible. It has been created to be used under **production Linux/UNIX servers**, but due to its simplicity and small size can be used on **embedded devices** as well.

It consists mainly of two programs: a collector, called `monitorix`, which is a Perl daemon that is started automatically like any other system service, and a CGI script called `monitorix.cgi`. Since 3.0 version Monitorix includes its own HTTP server built in, so you aren't forced to install a third-party web server to use it.

All of its development was initially created for monitoring Red Hat, Fedora and CentOS Linux systems, so this project was made keeping in mind these type of distributions. Today it runs on different GNU/Linux distributions and even in other UNIX systems like FreeBSD, OpenBSD and NetBSD.

> *"We absolutely like Monitorix for its user friendliness and lightweight. They are a must-try for those who are looking for a free and easy-to-use system monitoring tool." - Jerry*
> *HostScore.net*

It is currently in active development adding new features, new graphs and correcting bugs in the attempt to offer a great tool for daily systems administration of the best VPS hosting services.

Monitorix is an open source project and, just like any other open source project, anyone can contribute with his own time and knowledge.

Mail statistics

Mail statistics (1day)   Mails in queue (1day)

Latest

3.12.0 ve
21-Feb-202

3.11.0 ve
14-Mar-201

3.10.1 ve
15-Mar-201

More

Installati
 Red Ha
 Arch Li
 FreeBS
 Debian/
 Slackw
 FreeBS
 openSU

Changel

FAQ

Screensl

Donatio

GitHu

0:32 / 4:59

```
user@lolliangyang:~$ ifconfig
enp0s3      Link encap:Ethernet   HWaddr 08:00:27:5c:80:44
            inet addr:192.168.1.20  Bcast:192.168.1.255  Mask:255.255
            inet6 addr: fe80::de1d:9da5:e801:1d81/64 Scope:Link
            UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
            RX packets:48170 errors:0 dropped:0 overruns:0 frame:0
            TX packets:22468 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1000
            RX bytes:69842544 (69.8 MB)  TX bytes:1596690 (1.5 MB)

lo          Link encap:Local Loopback
            inet addr:127.0.0.1  Mask:255.0.0.0
            inet6 addr: ::1/128 Scope:Host
            UP LOOPBACK RUNNING  MTU:65536  Metric:1
            RX packets:1121 errors:0 dropped:0 overruns:0 frame:0
            TX packets:1121 errors:0 dropped:0 overruns:0 carrier:0
            collisions:0 txqueuelen:1
            RX bytes:373714 (373.7 KB)  TX bytes:373714 (373.7 KB)
```

192.168.1.20:8080/monitorix

192.168.1.20:8080/monitorix — Visit