NAME:VISHWAS M

SRN: PES2UG20CS390

SEC: F

SUB: OPERATING SYSTEM LABORATORY

WEEK: 2

Linux commands and Fork():

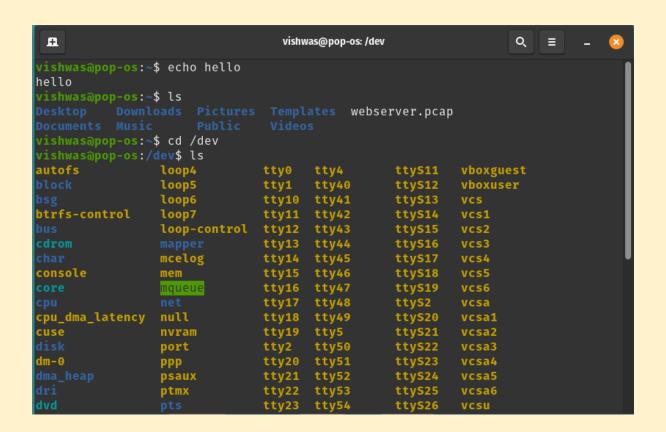
SCREENSHOTS OF THE COMMANDS EXECUTED:

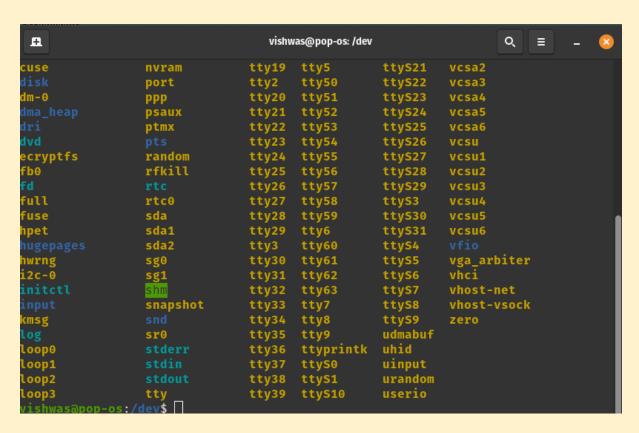
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A
                                     vishwas@pop-os: ~
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vishwas@pop-os:~$ ps
    PID TTY
                      TIME CMD
               00:00:00 bash
   2765 pts/0
   2780 pts/0 00:00:00 ps
vishwas@pop-os:∼$ pwd
/home/vishwas
vishwas@pop-os:~$ cd.
Command 'cd.' not found, did you mean:
  command 'cdo' from deb cdo (2.0.0~rc2-1)
  command 'cdw' from deb cdw (0.8.1-1build5)
  command 'cd5' from deb cd5 (0.1-4)
 command 'cde' from deb cde (0.1+git9-g551e54d-1.2)
  command 'cdi' from deb cdo (2.0.0~rc2-1)
 command 'cdp' from deb irpas (0.10-8ubuntu1)
 command 'cdb' from deb tinycdb (0.78build1)
Try: sudo apt install <deb name>
vishwas@pop-os:~$ cd ...
vishwas@pop-os:/home$ cd \
> cd home
bash: cd: too many arguments
vishwas@pop-os:/home$ cd .
vishwas@pop-os:/home$ cd vishwas/
vishwas@pop-os:~$ cd .
 vishwas@pop-os:~$ pwd
```

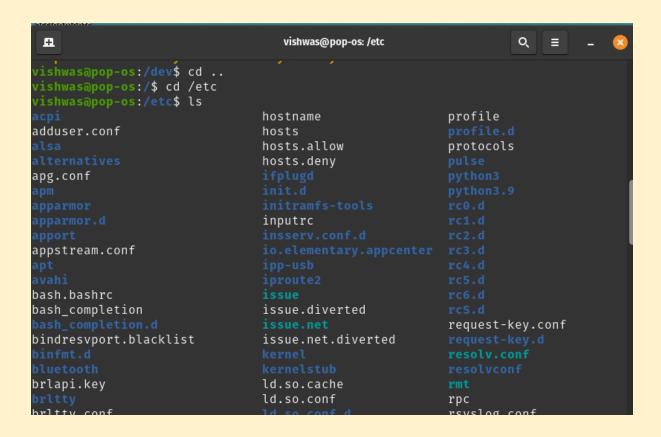
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vishwas@pop-os: ~
                                                                               command 'cdi' from deb cdo (2.0.0~rc2-1)
command 'cdp' from deb irpas (0.10-8ubuntu1)
command 'cdb' from deb tinycdb (0.78build1)
Try: sudo apt install <deb name>
vishwas@pop-os:~$ cd ..
vishwas@pop-os:/home$ cd \
> cd home
bash: cd: too many arguments
vishwas@pop-os:/home$ cd .
vishwas@pop-os:/home$ cd vishwas/
vishwas@pop-os:~$ cd .
vishwas@pop-os:~$ pwd
/home/vishwas
vishwas@pop-os:~$ ps -a
    PID TTY TIME CMD
   1368 tty2
                  00:00:03 Xorg
   1387 tty2
                 00:00:00 gnome-session-b
   3360 pts/0 00:00:00 ps
vishwas@pop-os:~$ w
13:51:46 up 9 min, 1 user, load average: 0.01, 0.96, 0.90
USER TTY
                    FROM
                                       LOGINO IDLE JCPU PCPU WHAT
                                                ?xdm? 2:28 0.01s /usr/libexec/gd
vishwas :1
                                       13:44
                    :1
vishwas@pop-os:~$ du
         ./.gnupg/private-keys-v1.d
```

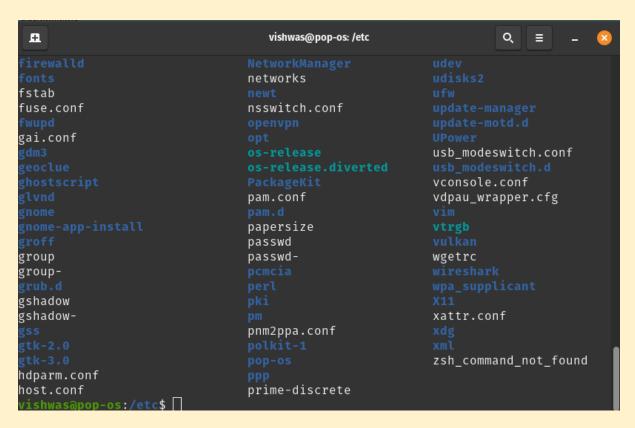
```
Ð.
                                   vishwas@pop-os: ~
vishwas :1
                                   13:44
                                            ?xdm?
                                                    2:28
                                                           0.01s /usr/libexec/gd
                  :1
vishwas@pop-os:~$ du
        ./.gnupg/private-keys-v1.d
        ./.gnupg
72
        ./.pki/nssdb
76
        ./.pki
        ./Public
        ./.mozilla/extensions
1360
        ./.mozilla/firefox/sjxywo4t.default-release/gmp-gmpopenh264/1.8.1.1
1364
        ./.mozilla/firefox/sjxywo4t.default-release/gmp-gmpopenh264
        ./.mozilla/firefox/sjxywo4t.default-release/sessionstore-backups
16
        ./.mozilla/firefox/sjxywo4t.default-release/storage/permanent/chrome/idb
/2823318777ntouromlalnodry--naod.files
        ./.mozilla/firefox/sjxywo4t.default-release/storage/permanent/chrome/idb
/1657114595AmcateirvtiSty.files
        ./.mozilla/firefox/sjxywo4t.default-release/storage/permanent/chrome/idb
/1451318868ntouromlalnodry--epcr.files
        ./.mozilla/firefox/sjxywo4t.default-release/storage/permanent/chrome/idb
/2918063365piupsah.files
        ./.mozilla/firefox/sjxywo4t.default-release/storage/permanent/chrome/idb
/3870112724rsegmnoittet-es.files
        ./.mozilla/firefox/sjxywo4t.default-release/storage/permanent/chrome/idb
/3561288849sdhlie.files
       ./.mozilla/firefox/sjxywo4t.default-release/storage/permanent/chrome/idb
```

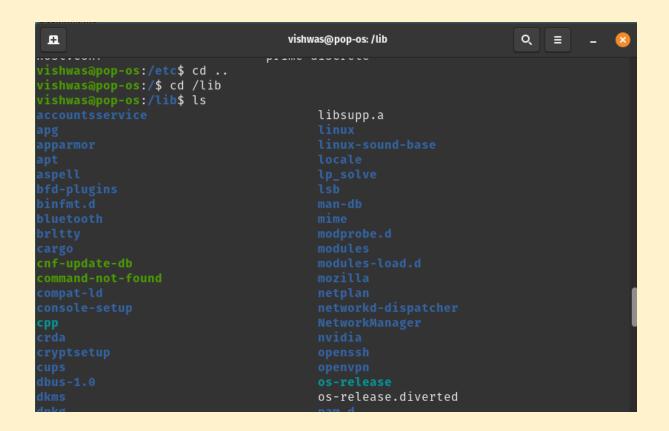
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A
                                    vishwas@pop-os: ~
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192
        ./.local/share/Trash
        ./.local/share/ibus-table
4
        ./.local/share/pop-transition
4
        ./.local/share/gnome-settings-daemon
12
        ./.local/share/gnome-shell
        ./.local/share/evolution/memos/trash
8
        ./.local/share/evolution/memos
8
        ./.local/share/evolution/calendar/system
4
        ./.local/share/evolution/calendar/trash
16
        ./.local/share/evolution/calendar
        ./.local/share/evolution/mail/trash
        ./.local/share/evolution/mail
        ./.local/share/evolution/addressbook/system/photos
92
        ./.local/share/evolution/addressbook/system
        ./.local/share/evolution/addressbook/trash
        ./.local/share/evolution/addressbook
100
8
        ./.local/share/evolution/tasks/system
        ./.local/share/evolution/tasks/trash
        ./.local/share/evolution/tasks
16
        ./.local/share/evolution
152
1333444 ./.local/share
1333448 ./.local
1623336 .
```

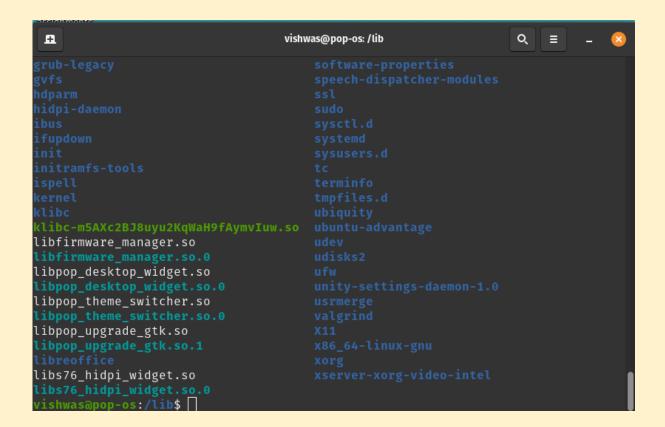




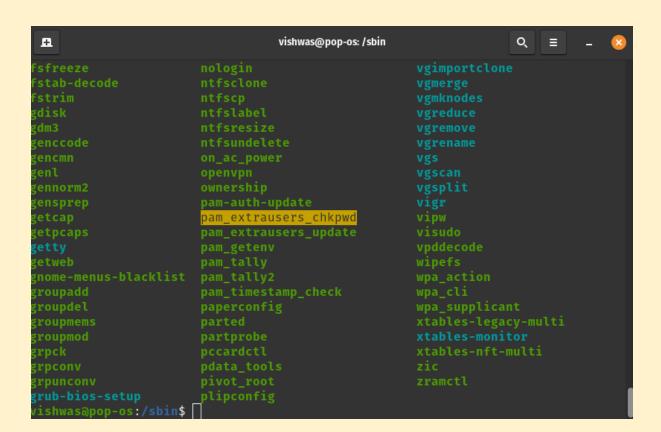








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                                        vishwas@pop-os:/sbin
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vishwas@pop-os:/lib$ cd ..
vishwas@pop-os:/$ cd /home
vishwas@pop-os:/home$ ls
vishwas@pop-os:/home$ cd ...
vishwas@pop-os:/$ cd /root
bash: cd: /root: Permission denied
vishwas@pop-os:/$ su
Password:
^c
vishwas@pop-os:/$ pwd
vishwas@pop-os:/$ cd /sbin
vishwas@pop-os:/<mark>sbin</mark>$ ls
                                                               pppd
                                                               pppdump
                                                               pppoe-discovery
pppstats
addgnupghome
addgroup
add-shell
adduser
                                                               pptp
pptpsetup
pvchange
```



Fork():

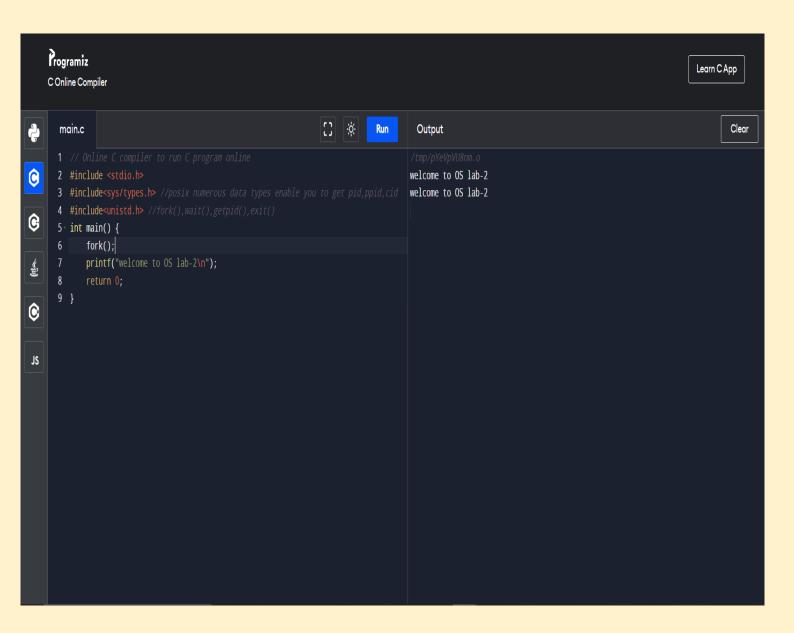
The output of the program is executed in the order of 2^n . Here 'n' is the number of times the fork() command is used inside the main function. There are more commands just like fork() such as exit(), terminate(), wait(), getpid(), read(), write() and many more. These commands are used to alter the process state in the operation system.

The output of the program when fork() is used one time will be two times.

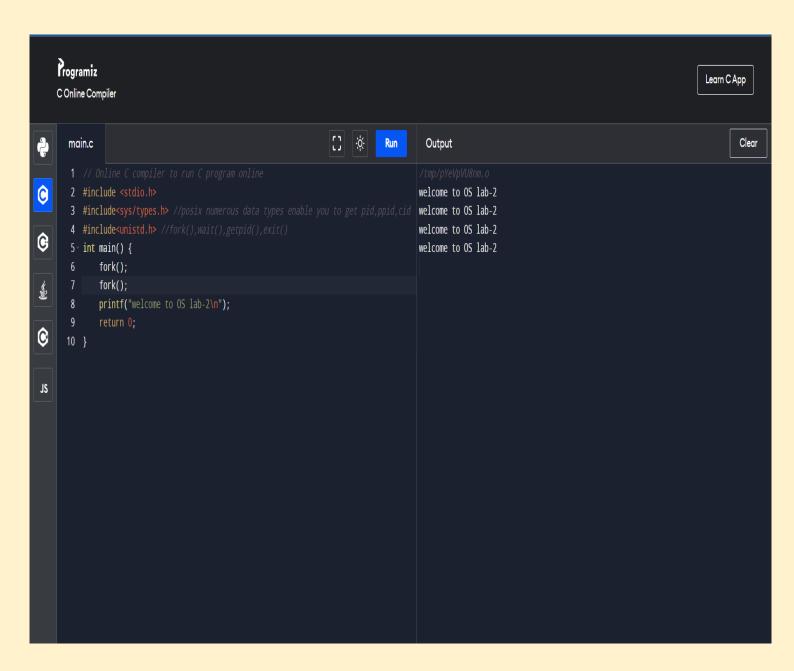
The output of the program when fork() Is used two time will be four times.

The output of the program when fork() Is used three times will be eight times.

when fork() used 2 time:



when fork() is used 2 times:



when fork() is used 3 times:

