LAB 1

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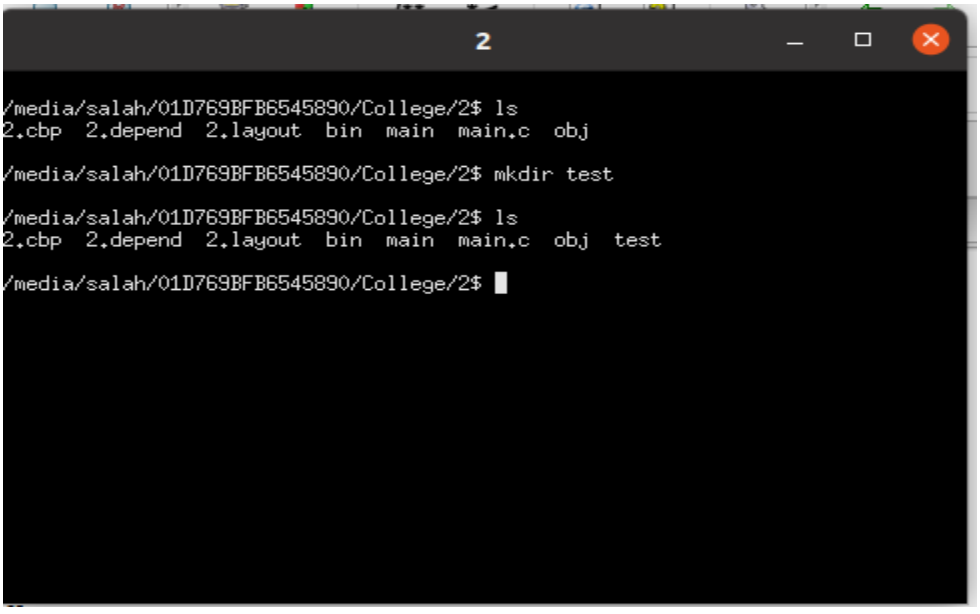
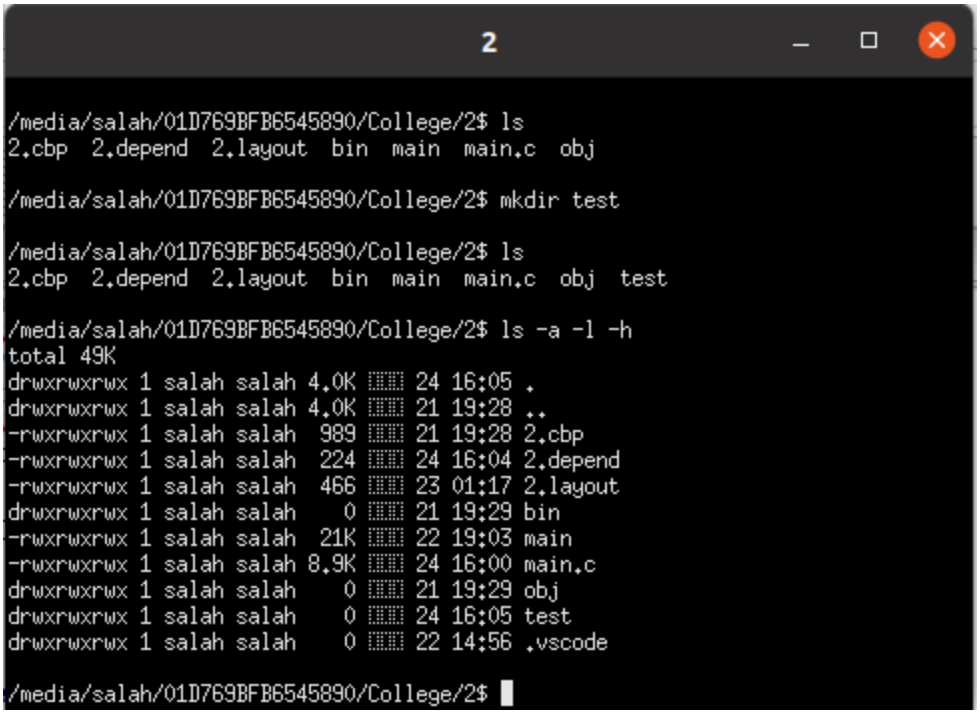
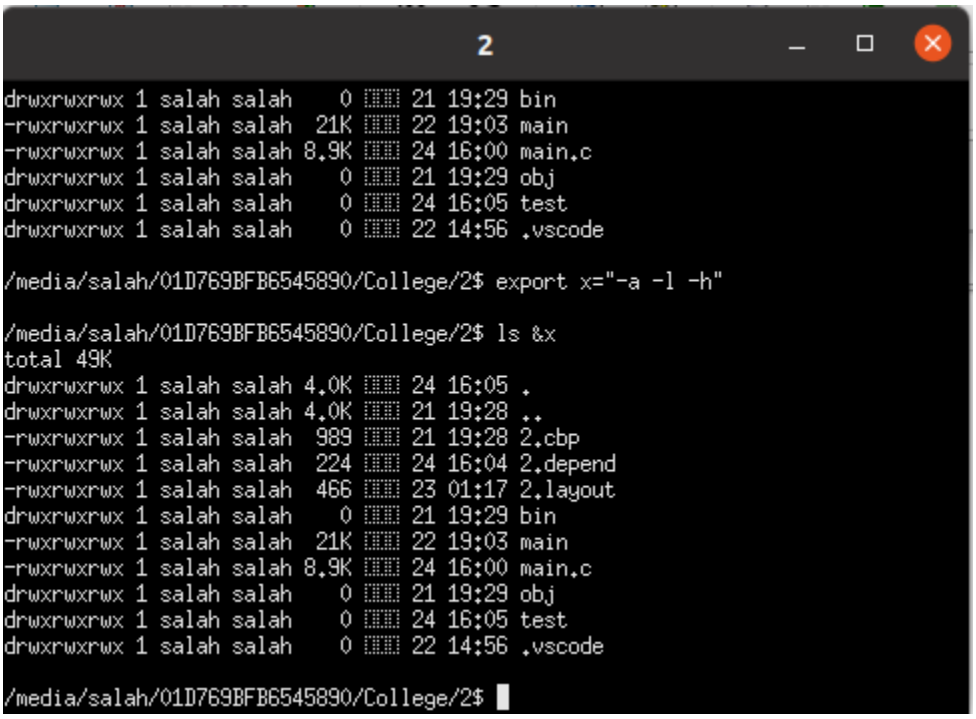
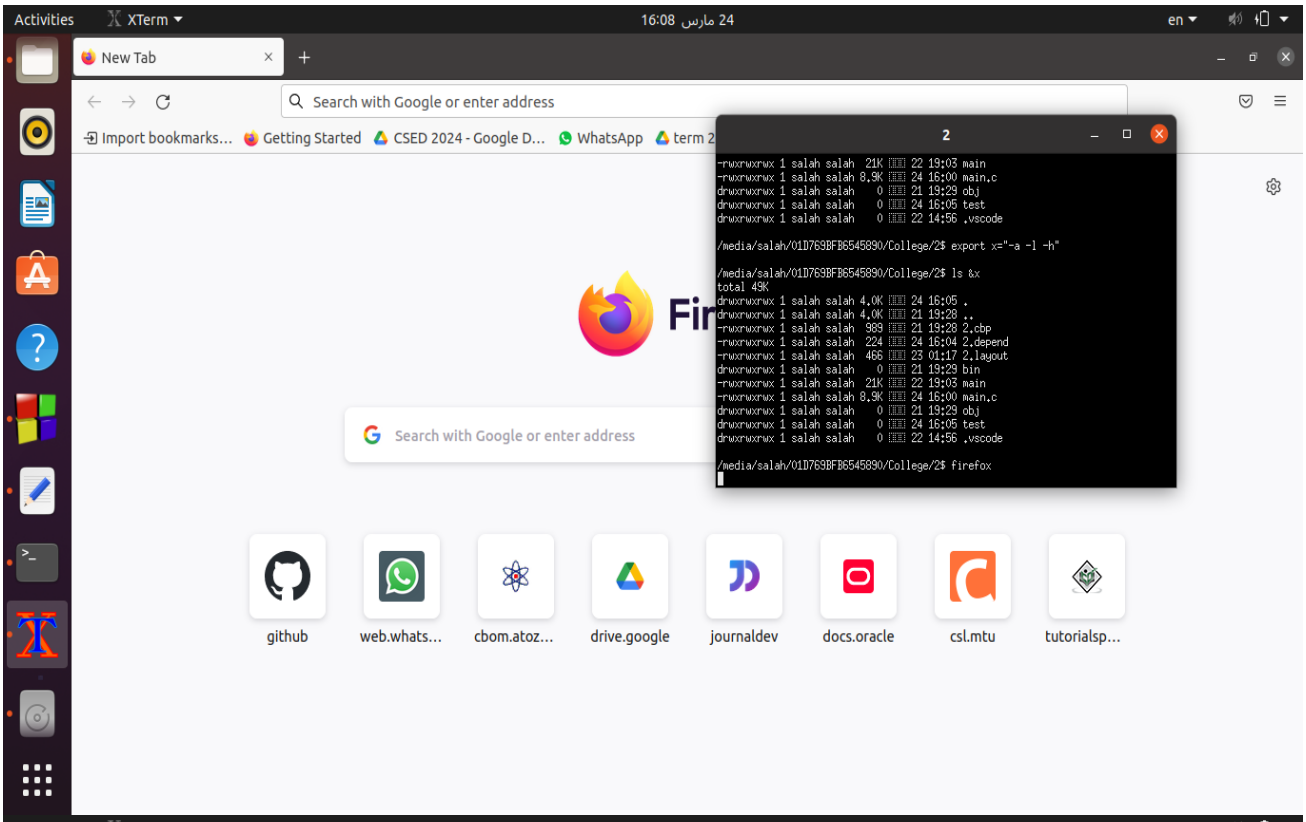
ID	19015854

1. Description:
    a. Main function consists of an infinite loop.
    b. There are different functions the most important one is “shell()”.
    c. Shell function check if the instruction is “exit, echo, export, cd” it will perform the task needed for it otherwise send the instruction and the command(s) related to is to “execvp” function.
    d. Split function:
        i. To split the input into instruction and related commands e.g. “ls –a –l –h” the instruction is “ls” and related commands “-a –l –h”.
    e. Is Contain function:
        i. Search in the string for the specified character and return true or false. e.g. (‘m’, “ahmed”) return true and index of ‘m’ in “ahmed”.
    f.
2. Sample Runs:
    a. 

b.


2
/media/salah/01D769BFB6545890/College/2$ ls
2.cbp 2.depend 2.layout bin main main.c obj
/media/salah/01D769BFB6545890/College/2$ mkdir test
/media/salah/01D769BFB6545890/College/2$ ls
2.cbp 2.depend 2.layout bin main main.c obj test
/media/salah/01D769BFB6545890/College/2$ ls -a -l -h
total 49K
drwxrwxrwx 1 salah salah 4.0K [illegible] 24 16:05 .
drwxrwxrwx 1 salah salah 4.0K [illegible] 21 19:28 ..
-rwxrwxrwx 1 salah salah 989 [illegible] 21 19:28 2.cbp
-rwxrwxrwx 1 salah salah 224 [illegible] 24 16:04 2.depend
-rwxrwxrwx 1 salah salah 466 [illegible] 23 01:17 2.layout
drwxrwxrwx 1 salah salah   0 [illegible] 21 19:29 bin
-rwxrwxrwx 1 salah salah 21K [illegible] 22 19:03 main
-rwxrwxrwx 1 salah salah 8.9K [illegible] 24 16:00 main.c
drwxrwxrwx 1 salah salah   0 [illegible] 21 19:29 obj
drwxrwxrwx 1 salah salah   0 [illegible] 24 16:05 test
drwxrwxrwx 1 salah salah   0 [illegible] 22 14:56 .vscode
/media/salah/01D769BFB6545890/College/2$


2
drwxrwxrwx 1 salah salah   0 [illegible] 21 19:29 bin
-rwxrwxrwx 1 salah salah 21K [illegible] 22 19:03 main
-rwxrwxrwx 1 salah salah 8.9K [illegible] 24 16:00 main.c
drwxrwxrwx 1 salah salah   0 [illegible] 21 19:29 obj
drwxrwxrwx 1 salah salah   0 [illegible] 24 16:05 test
drwxrwxrwx 1 salah salah   0 [illegible] 22 14:56 .vscode
/media/salah/01D769BFB6545890/College/2$ export x="-a -l -h"
/media/salah/01D769BFB6545890/College/2$ ls &x
total 49K
drwxrwxrwx 1 salah salah 4.0K [illegible] 24 16:05 .
drwxrwxrwx 1 salah salah 4.0K [illegible] 21 19:28 ..
-rwxrwxrwx 1 salah salah 989 [illegible] 21 19:28 2.cbp
-rwxrwxrwx 1 salah salah 224 [illegible] 24 16:04 2.depend
-rwxrwxrwx 1 salah salah 466 [illegible] 23 01:17 2.layout
drwxrwxrwx 1 salah salah   0 [illegible] 21 19:29 bin
-rwxrwxrwx 1 salah salah 21K [illegible] 22 19:03 main
-rwxrwxrwx 1 salah salah 8.9K [illegible] 24 16:00 main.c
drwxrwxrwx 1 salah salah   0 [illegible] 21 19:29 obj
drwxrwxrwx 1 salah salah   0 [illegible] 24 16:05 test
drwxrwxrwx 1 salah salah   0 [illegible] 22 14:56 .vscode
/media/salah/01D769BFB6545890/College/2$


Activities
XTerm
24 مارس 16:08
en
New Tab
Search with Google or enter address
Import bookmarks...
Getting Started
CSED 2024 - Google D...
WhatsApp
term 2
2
-rwxrwxrwx 1 salah salah 21K 22 19:03 main
-rwxrwxrwx 1 salah salah 8.9K 24 16:00 main.c
drwxrwxrwx 1 salah salah 0 21 19:29 obj
drwxrwxrwx 1 salah salah 0 24 16:05 test
drwxrwxrwx 1 salah salah 0 22 14:56 .vscode
/media/salah/01D769BFB6545890/College/2$ export x="-a -l -h"
/media/salah/01D769BFB6545890/College/2$ ls &x
total 49K
drwxrwxrwx 1 salah salah 4.0K 24 16:05 .
drwxrwxrwx 1 salah salah 4.0K 21 19:28 ..
-rwxrwxrwx 1 salah salah 989 21 19:28 2.cbp
-rwxrwxrwx 1 salah salah 224 24 16:04 2.depend
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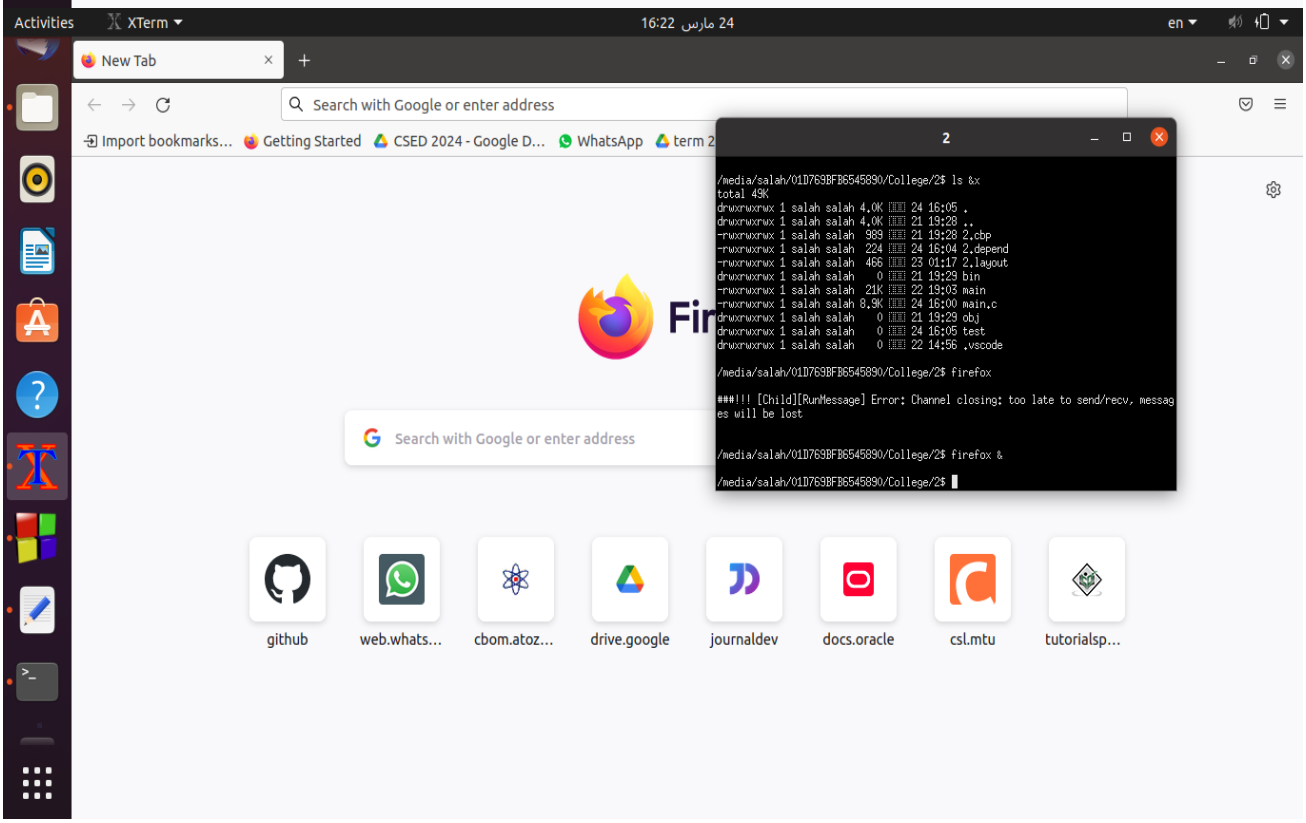
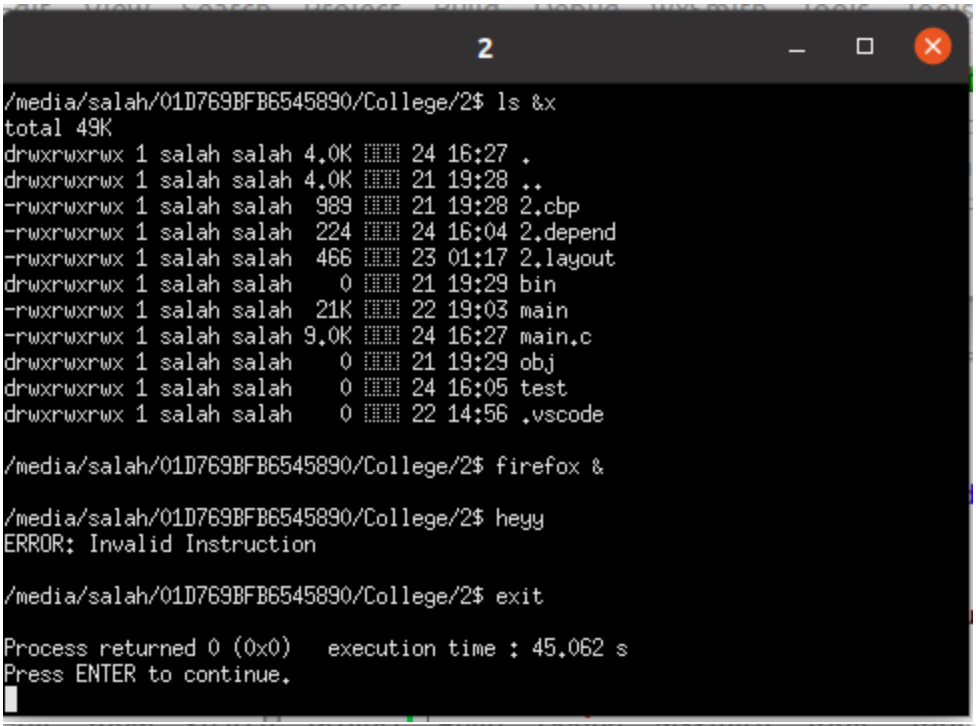
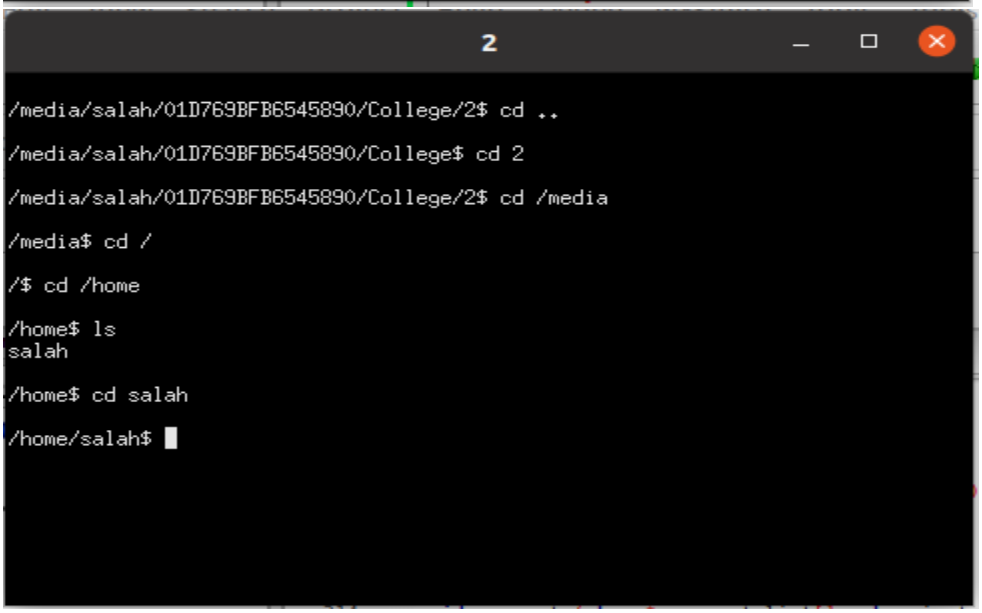
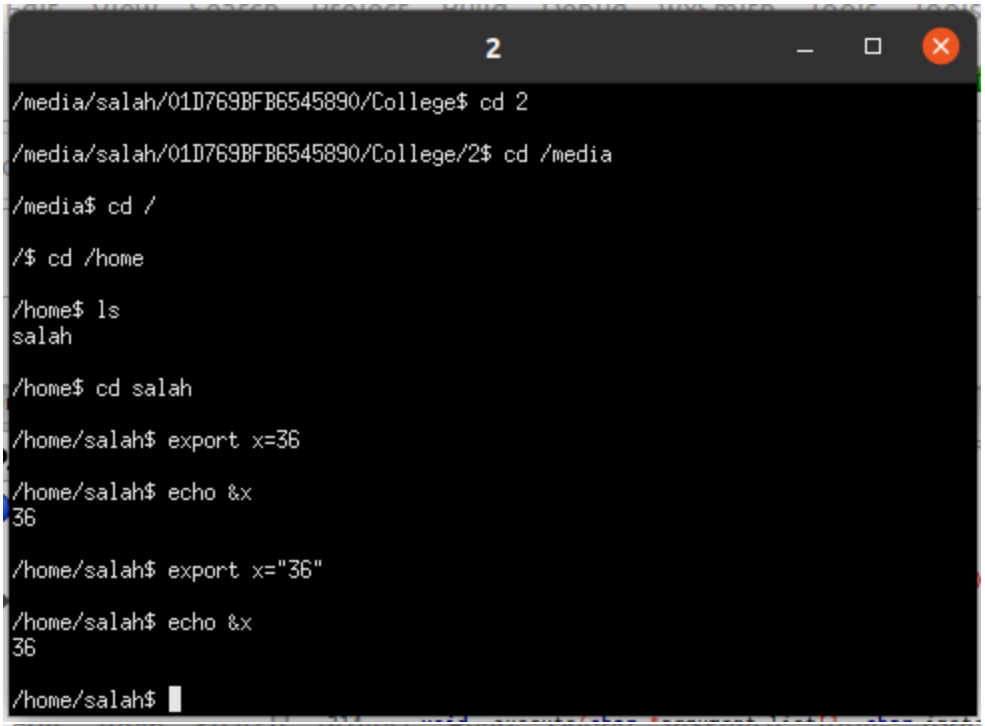
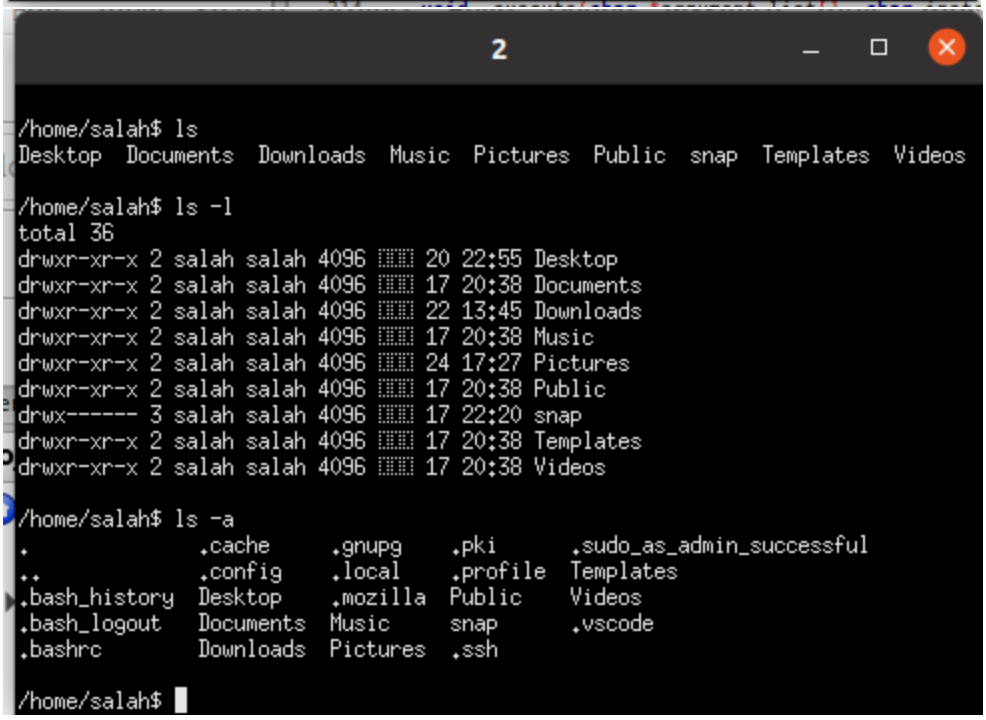
drwxrwxrwx 1 salah salah 0 21 19:29 bin
-rwxrwxrwx 1 salah salah 21K 22 19:03 main
-rwxrwxrwx 1 salah salah 8.9K 24 16:00 main.c
drwxrwxrwx 1 salah salah 0 21 19:29 obj
drwxrwxrwx 1 salah salah 0 24 16:05 test
drwxrwxrwx 1 salah salah 0 22 14:56 .vscode
/media/salah/01D769BFB6545890/College/2$ firefox
Search with Google or enter address
github
web.whats...
cbom.atoz...
drive.google
journaldev
docs.oracle
csl.mtu
tutorialsp...

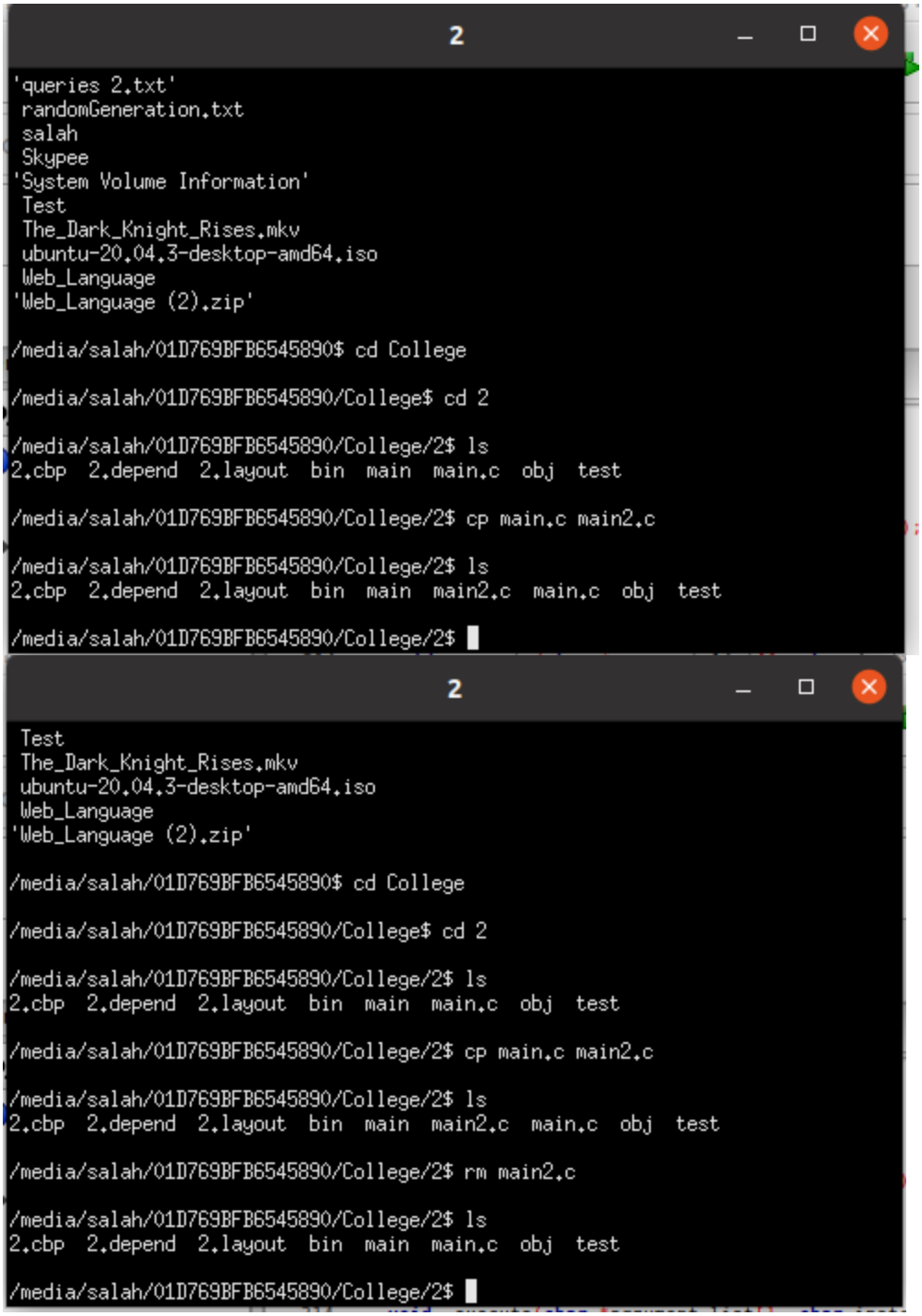

Activities
XTerm
24 مارس 16:22
en
New Tab
Search with Google or enter address
Import bookmarks...
Getting Started
CSED 2024 - Google D...
WhatsApp
term 2
2
/media/salah/01D769BFB6545890/College/2$ ls &x
total 49K
drwxrwxrwx 1 salah salah 4.0K 24 16:05 .
drwxrwxrwx 1 salah salah 4.0K 21 19:28 ..
-rwxrwxrwx 1 salah salah 989 21 19:28 2.cbp
-rwxrwxrwx 1 salah salah 224 24 16:04 2.depend
-rwxrwxrwx 1 salah salah 466 23 01:17 2.layout
drwxrwxrwx 1 salah salah 0 21 19:29 bin
-rwxrwxrwx 1 salah salah 21K 22 19:03 main
-rwxrwxrwx 1 salah salah 8.9K 24 16:00 main.c
drwxrwxrwx 1 salah salah 0 21 19:29 obj
drwxrwxrwx 1 salah salah 0 24 16:05 test
drwxrwxrwx 1 salah salah 0 22 14:56 .vscode
/media/salah/01D769BFB6545890/College/2$ firefox
###!!! [Child][RunMessage] Error: Channel closing: too late to send/recv, messag
es will be lost
/media/salah/01D769BFB6545890/College/2$ firefox &
/media/salah/01D769BFB6545890/College/2$
Search with Google or enter address
github
web.whats...
cbom.atoz...
drive.google
journaldev
docs.oracle
csl.mtu
tutorialsp...


2
/media/salah/01D769BFB6545890/College/2$ ls &x
total 49K
drwxrwxrwx 1 salah salah 4.0K [illegible] 24 16:27 .
drwxrwxrwx 1 salah salah 4.0K [illegible] 21 19:28 ..
-rwxrwxrwx 1 salah salah 989 [illegible] 21 19:28 2.cbp
-rwxrwxrwx 1 salah salah 224 [illegible] 24 16:04 2.depend
-rwxrwxrwx 1 salah salah 466 [illegible] 23 01:17 2.layout
drwxrwxrwx 1 salah salah   0 [illegible] 21 19:29 bin
-rwxrwxrwx 1 salah salah 21K [illegible] 22 19:03 main
-rwxrwxrwx 1 salah salah 9.0K [illegible] 24 16:27 main.c
drwxrwxrwx 1 salah salah   0 [illegible] 21 19:29 obj
drwxrwxrwx 1 salah salah   0 [illegible] 24 16:05 test
drwxrwxrwx 1 salah salah   0 [illegible] 22 14:56 .vscode
/media/salah/01D769BFB6545890/College/2$ firefox &
/media/salah/01D769BFB6545890/College/2$ heyy
ERROR: Invalid Instruction
/media/salah/01D769BFB6545890/College/2$ exit
Process returned 0 (0x0)   execution time : 45.062 s
Press ENTER to continue.


2
/media/salah/01D769BFB6545890/College/2$ cd ..
/media/salah/01D769BFB6545890/College$ cd 2
/media/salah/01D769BFB6545890/College/2$ cd /media
/media$ cd /
/$ cd /home
/home$ ls
salah
/home$ cd salah
/home/salah$


2
/media/salah/01D769BFB6545890/College$ cd 2
/media/salah/01D769BFB6545890/College/2$ cd /media
/media$ cd /
/$ cd /home
/home$ ls
salah
/home$ cd salah
/home/salah$ export x=36
/home/salah$ echo &x
36
/home/salah$ export x="36"
/home/salah$ echo &x
36
/home/salah$


2
/home/salah$ ls
Desktop Documents Downloads Music Pictures Public snap Templates Videos
/home/salah$ ls -l
total 36
drwxr-xr-x 2 salah salah 4096 [illegible] 20 22:55 Desktop
drwxr-xr-x 2 salah salah 4096 [illegible] 17 20:38 Documents
drwxr-xr-x 2 salah salah 4096 [illegible] 22 13:45 Downloads
drwxr-xr-x 2 salah salah 4096 [illegible] 17 20:38 Music
drwxr-xr-x 2 salah salah 4096 [illegible] 24 17:27 Pictures
drwxr-xr-x 2 salah salah 4096 [illegible] 17 20:38 Public
drwx------ 3 salah salah 4096 [illegible] 17 22:20 snap
drwxr-xr-x 2 salah salah 4096 [illegible] 17 20:38 Templates
drwxr-xr-x 2 salah salah 4096 [illegible] 17 20:38 Videos
/home/salah$ ls -a
. .cache .gnupg .pki .sudo_as_admin_successful
.. .config .local .profile Templates
.bash_history Desktop .mozilla Public Videos
.bash_logout Documents Music snap .vscode
.bashrc Downloads Pictures .ssh
/home/salah$


2
'queries 2.txt'
randomGeneration.txt
salah
Skypee
'System Volume Information'
Test
The_Dark_Knight_Rises.mkv
ubuntu-20.04.3-desktop-amd64.iso
Web_Language
'Web_Language (2).zip'
/media/salah/01D769BFB6545890$ cd College
/media/salah/01D769BFB6545890/College$ cd 2
/media/salah/01D769BFB6545890/College/2$ ls
2.cbp 2.depend 2.layout bin main main.c obj test
/media/salah/01D769BFB6545890/College/2$ cp main.c main2.c
/media/salah/01D769BFB6545890/College/2$ ls
2.cbp 2.depend 2.layout bin main main2.c main.c obj test
/media/salah/01D769BFB6545890/College/2$
2
Test
The_Dark_Knight_Rises.mkv
ubuntu-20.04.3-desktop-amd64.iso
Web_Language
'Web_Language (2).zip'
/media/salah/01D769BFB6545890$ cd College
/media/salah/01D769BFB6545890/College$ cd 2
/media/salah/01D769BFB6545890/College/2$ ls
2.cbp 2.depend 2.layout bin main main.c obj test
/media/salah/01D769BFB6545890/College/2$ cp main.c main2.c
/media/salah/01D769BFB6545890/College/2$ ls
2.cbp 2.depend 2.layout bin main main2.c main.c obj test
/media/salah/01D769BFB6545890/College/2$ rm main2.c
/media/salah/01D769BFB6545890/College/2$ ls
2.cbp 2.depend 2.layout bin main main.c obj test
/media/salah/01D769BFB6545890/College/2$

C.