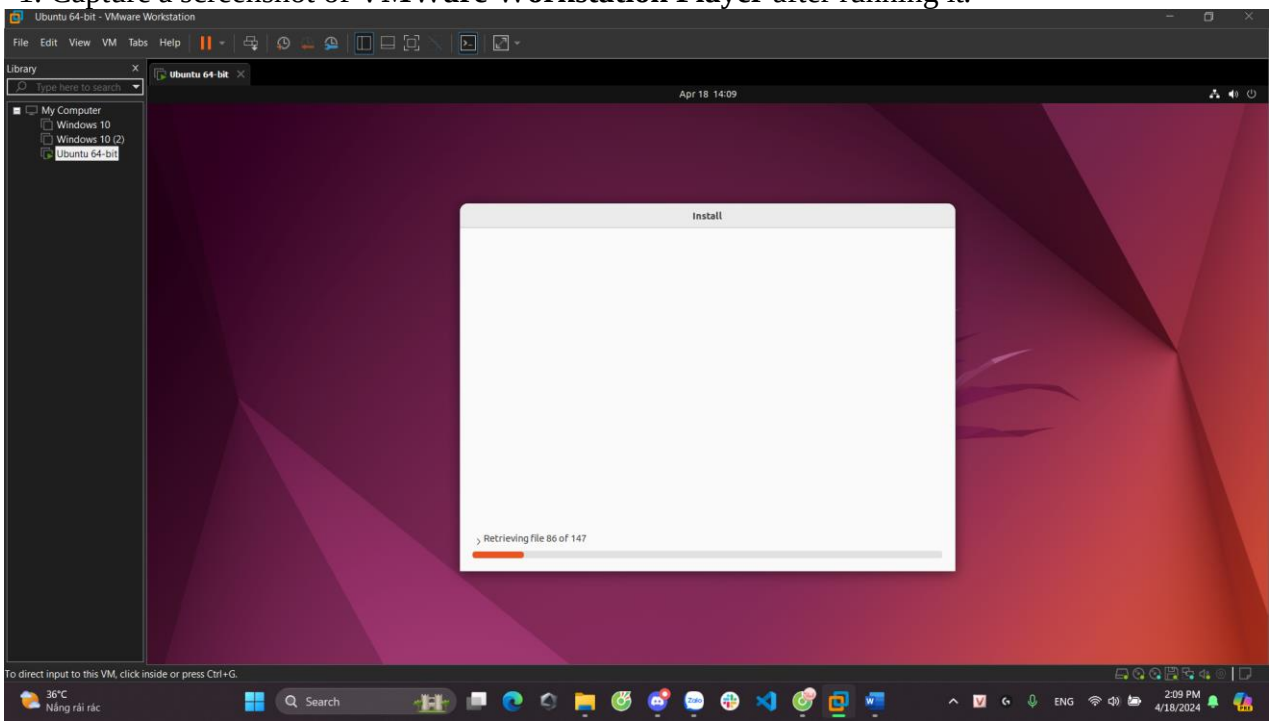
Practice Assignment 1

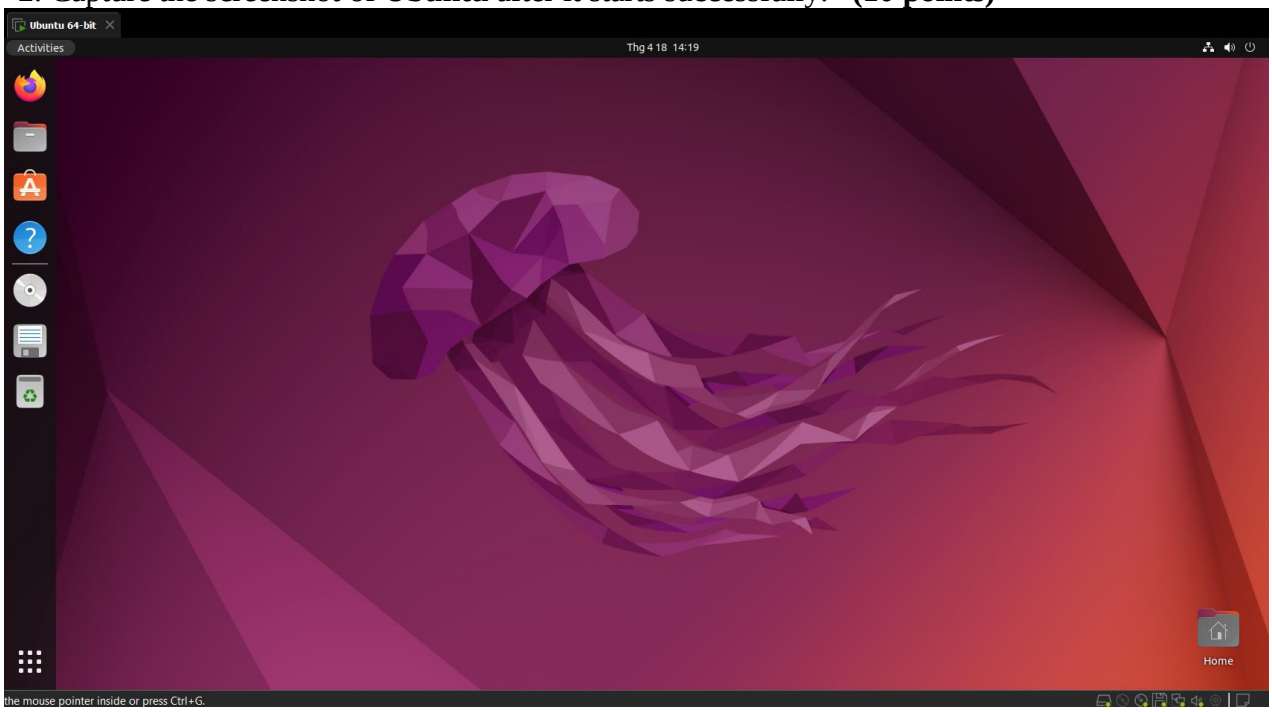
Capture the screen shots of the results for the following questions. Save each screen shot as the question number. Save all the screen shots in a word file and upload the file into Moodle.

Total Points : 100

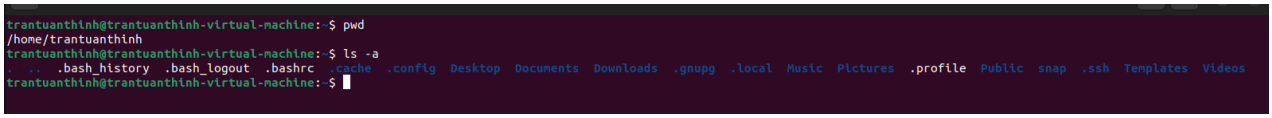
1. Capture a screenshot of **VMWare Workstation Player** after running it.



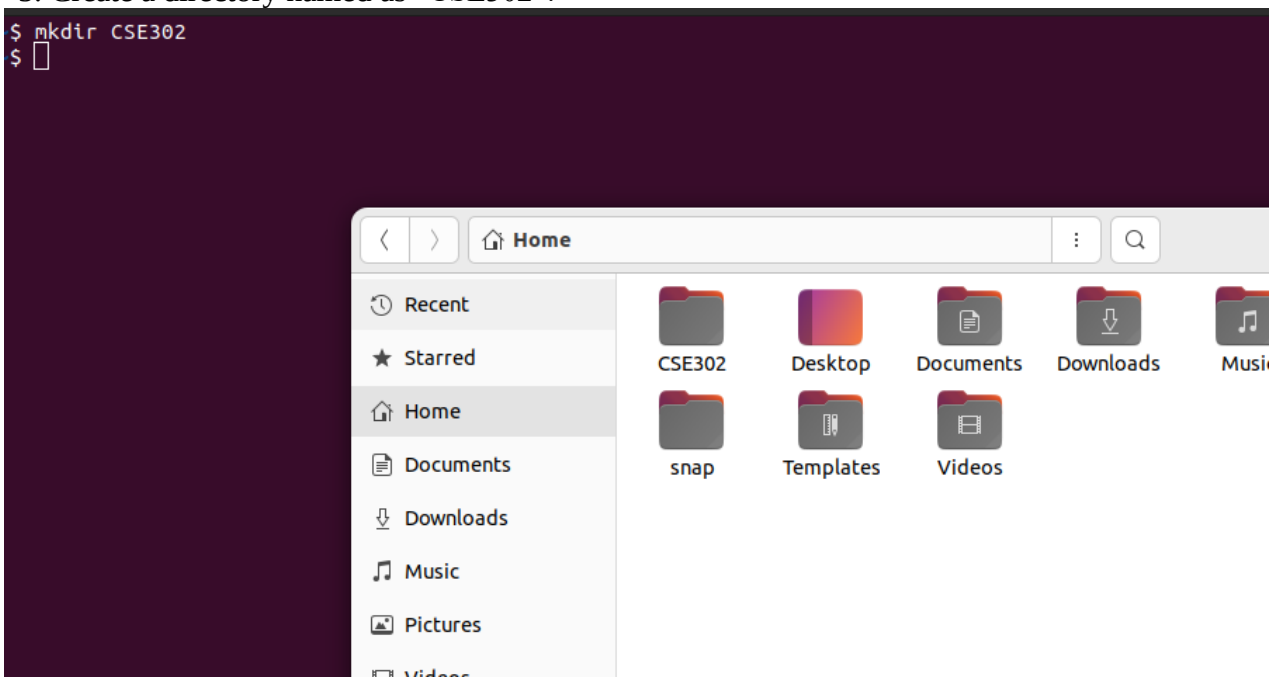
2. Capture the screenshot of **Ubuntu** after it starts successfully. **(10 points)**



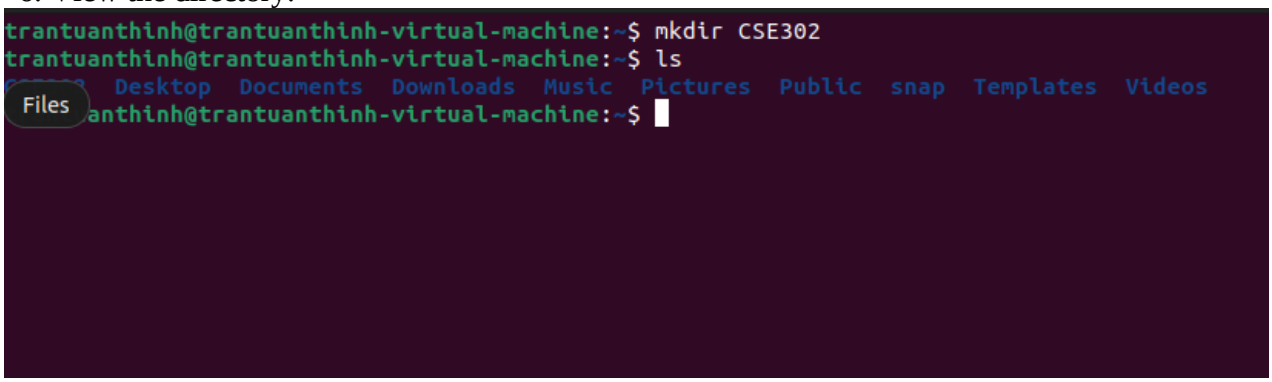
3. List all contents of your current working directory.
4. List all contents of your current working directory, including hidden files.



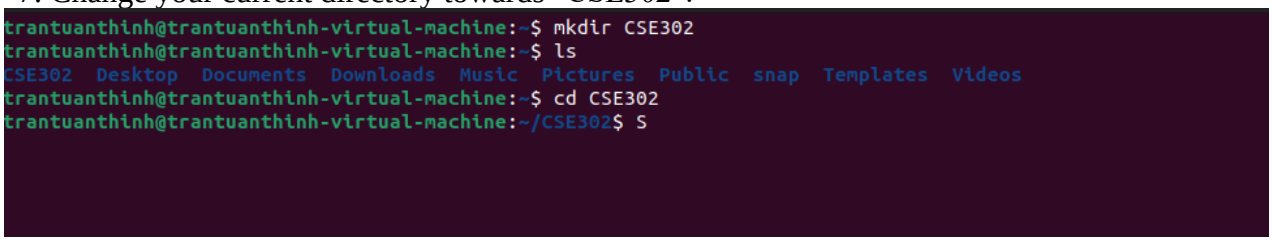
5. Create a directory named as “CSE302”.



6. View the directory.



7. Change your current directory towards “CSE302”.



8. Return from “CSE302” directory towards your home directory.

```
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

trantuanthinh@trantuanthinh-virtual-machine:~$ cd CSE302
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ cd..
cd..: command not found
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ cd ..
trantuanthinh@trantuanthinh-virtual-machine:~$
```

9. Create another directory named as “SCIT”.
10. View the directory.
11. Change your current directory towards “SCIT”.

```
trantuanthinh@trantuanthinh-virtual-machine:~$ mkdir SCIT
trantuanthinh@trantuanthinh-virtual-machine:~$ ls
CSE302  Desktop  Documents  Downloads  Music  Pictures  Public  SCIT  snap  Templates  Videos
trantuanthinh@trantuanthinh-virtual-machine:~$ cd SCIT
trantuanthinh@trantuanthinh-virtual-machine:~/SCIT$
```

12. Go to your home directory, and display full path of your current directory.

```
trantuanthinh@trantuanthinh-virtual-machine:~/SCIT$ cd ~
trantuanthinh@trantuanthinh-virtual-machine:~$ pwd
/home/trantuanthinh
trantuanthinh@trantuanthinh-virtual-machine:~$
```

13. Go to directory “CSE302” and create a file named as “Lab1”.

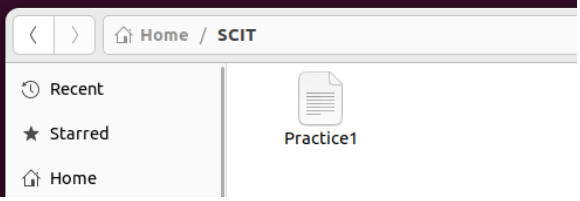
```
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ touch Lab1
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$
```

14. Copy “Lab1” towards another file named as “Lab2” in the same directory.

```
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ touch Lab1
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ cp Lab1 Lab2
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ ls
Lab1  Lab2
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$
```

15. Copy “Lab1” towards another file named as “Practice1” in another directory “SCIT”.

```
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ touch Lab1
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ cp Lab1 Lab2
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ ls
Lab1  Lab2
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ cp Lab1 ../SCIT/Practice1
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$
```



16. Rename the file “Lab1” as “Practice Lab 1”.
17. Delete the file “Lab2”.

```
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ mv Lab1 "Practice Lab 1"
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ ls
 Lab2  'Practice Lab 1'
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ rm Lab2
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$ ls
'Practice Lab 1'
trantuanthinh@trantuanthinh-virtual-machine:~/CSE302$
```

18. Delete the directory “SCIT”.

```
trantuanthinh@trantuanthinh-virtual-machine:~$ rm -r SCIT
trantuanthinh@trantuanthinh-virtual-machine:~$ ls
CSE302  Desktop  Documents  Downloads  Music  Pictures  Public  snap  Templates  Videos
trantuanthinh@trantuanthinh-virtual-machine:~$
```

19. Read documentation on the command “ls”.

```
LS(1)                                   User Commands                                   LS(1)

NAME
       ls - list directory contents

SYNOPSIS
       ls [OPTION]... [FILE]...

DESCRIPTION
       List information about the FILEs (the current directory by default).  Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.

       Mandatory arguments to long options are mandatory for short options too.

       -a, --all
              do not ignore entries starting with .

       -A, --almost-all
              do not list implied . and ..

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

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

       --block-size=SIZE
              with -l, scale sizes by SIZE when printing them; e.g., '--block-size=M'; 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, new-
              est first

       -C     list entries by columns

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

       -d, --directory
              list directories themselves, not their contents

       -D, --dired
```

20. Search document for the matching command that have something do with “sort”.

```
alphasort (3)         - scan a directory for matching entries
apt-sortpkgs (1)      - Utility to sort package index files
bsearch (3)           - binary search of a sorted array
bunzip2 (1)           - a block-sorting file compressor, v1.0.8
bzip2 (1)             - a block-sorting file compressor, v1.0.8
comm (1)              - compare two sorted files line by line
qsort (3)             - sort an array
qsort_r (3)           - sort an array
sort (1)              - sort lines of text files
sort-dctrl (1)        - sort Debian control files
tsort (1)             - perform topological sort
versionsort (3)       - scan a directory for matching entries
XConsortium (7)       - X Consortium information
```

21. Install a software package named as “build-essential”.

```
Setting up manpages-dev (5.10-1ubuntu1) ...
Setting up lto-disabled-list (24) ...
Setting up libfile-fcntllock-perl (0.22-3build7) ...
Setting up libalgorithm-diff-perl (1.201-1) ...
Setting up binutils-common:amd64 (2.38-4ubuntu2.6) ...
Setting up linux-libc-dev:amd64 (5.15.0-102.112) ...
Setting up libctf-nobfd0:amd64 (2.38-4ubuntu2.6) ...
Setting up libfakeroot:amd64 (1.28-1ubuntu1) ...
Setting up libasan6:amd64 (11.4.0-1ubuntu1~22.04) ...
Setting up fakeroot (1.28-1ubuntu1) ...
update-alternatives: using /usr/bin/fakeroot-sysv to provide /usr/bin/fakeroot (fakeroot) in auto mode
Setting up libtirpc-dev:amd64 (1.3.2-2ubuntu0.1) ...
Setting up rpcsvc-proto (1.4.2-0ubuntu6) ...
Setting up make (4.3-4.1build1) ...
Setting up libquadmath0:amd64 (12.3.0-1ubuntu1~22.04) ...
Setting up libdpkg-perl (1.21.1ubuntu2.3) ...
Setting up libubsan1:amd64 (12.3.0-1ubuntu1~22.04) ...
Setting up libnsl-dev:amd64 (1.3.0-2build2) ...
Setting up libcrypt-dev:amd64 (1:4.4.27-1) ...
Setting up libbinutils:amd64 (2.38-4ubuntu2.6) ...
Setting up libc-dev-bin (2.35-0ubuntu3.6) ...
Setting up libalgorithm-diff-xs-perl (0.04-6build3) ...
Setting up libcc1-0:amd64 (12.3.0-1ubuntu1~22.04) ...
Setting up liblsan0:amd64 (12.3.0-1ubuntu1~22.04) ...
Setting up libitm1:amd64 (12.3.0-1ubuntu1~22.04) ...
Setting up libc-devtools (2.35-0ubuntu3.6) ...
Setting up libalgorithm-merge-perl (0.08-3) ...
Setting up libtsan0:amd64 (11.4.0-1ubuntu1~22.04) ...
Setting up libctf0:amd64 (2.38-4ubuntu2.6) ...
Setting up libgcc-11-dev:amd64 (11.4.0-1ubuntu1~22.04) ...
Setting up libc6-dev:amd64 (2.35-0ubuntu3.6) ...
Setting up binutils-x86-64-linux-gnu (2.38-4ubuntu2.6) ...
Setting up binutils (2.38-4ubuntu2.6) ...
Setting up dpkg-dev (1.21.1ubuntu2.3) ...
Setting up libstdc++-11-dev:amd64 (11.4.0-1ubuntu1~22.04) ...
Setting up gcc-11 (11.4.0-1ubuntu1~22.04) ...
Setting up g++-11 (11.4.0-1ubuntu1~22.04) ...
Setting up gcc (4:11.2.0-1ubuntu1) ...
Setting up g++ (4:11.2.0-1ubuntu1) ...
update-alternatives: using /usr/bin/g++ to provide /usr/bin/c++ (c++) in auto mode
Setting up build-essential (12.9ubuntu3) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.6) ...
trantuanthinh@trantuanthinh-virtual-machine:~$
```

22. Print the version of “gcc” compiler.

```
trantuanthinh@trantuanthinh-virtual-machine:~$ gcc --version
gcc (Ubuntu 11.4.0-1ubuntu1~22.04) 11.4.0
Copyright (C) 2021 Free Software Foundation, Inc.
This is free software; see the source for copying conditions.  There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

trantuanthinh@trantuanthinh-virtual-machine:~$
```

23. Download the following file “https://cdn.kernel.org/pub/linux/kernel/v4.x/linux-4.17.2.tar.xz” from internet.

```
trantuanthinh@trantuanthinh-virtual-machine:~$ wget "https://cdn.kernel.org/pub/linux/kernel/v4.
x/linux-4.17.2.tar.xz"
--2024-04-18 15:11:26--  https://cdn.kernel.org/pub/linux/kernel/v4.x/linux-4.17.2.tar.xz
Resolving cdn.kernel.org (cdn.kernel.org)... 151.101.77.176, 2a04:4e42:12::432
Connecting to cdn.kernel.org (cdn.kernel.org)|151.101.77.176|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 102167060 (97M) [application/x-xz]
Saving to: ‘linux-4.17.2.tar.xz’

linux-4.17.2.tar.xz     100%[=============================>]  97,43M  10,4MB/s    in 11s

2024-04-18 15:11:40 (8,90 MB/s) - ‘linux-4.17.2.tar.xz’ saved [102167060/102167060]

trantuanthinh@trantuanthinh-virtual-machine:~$
```

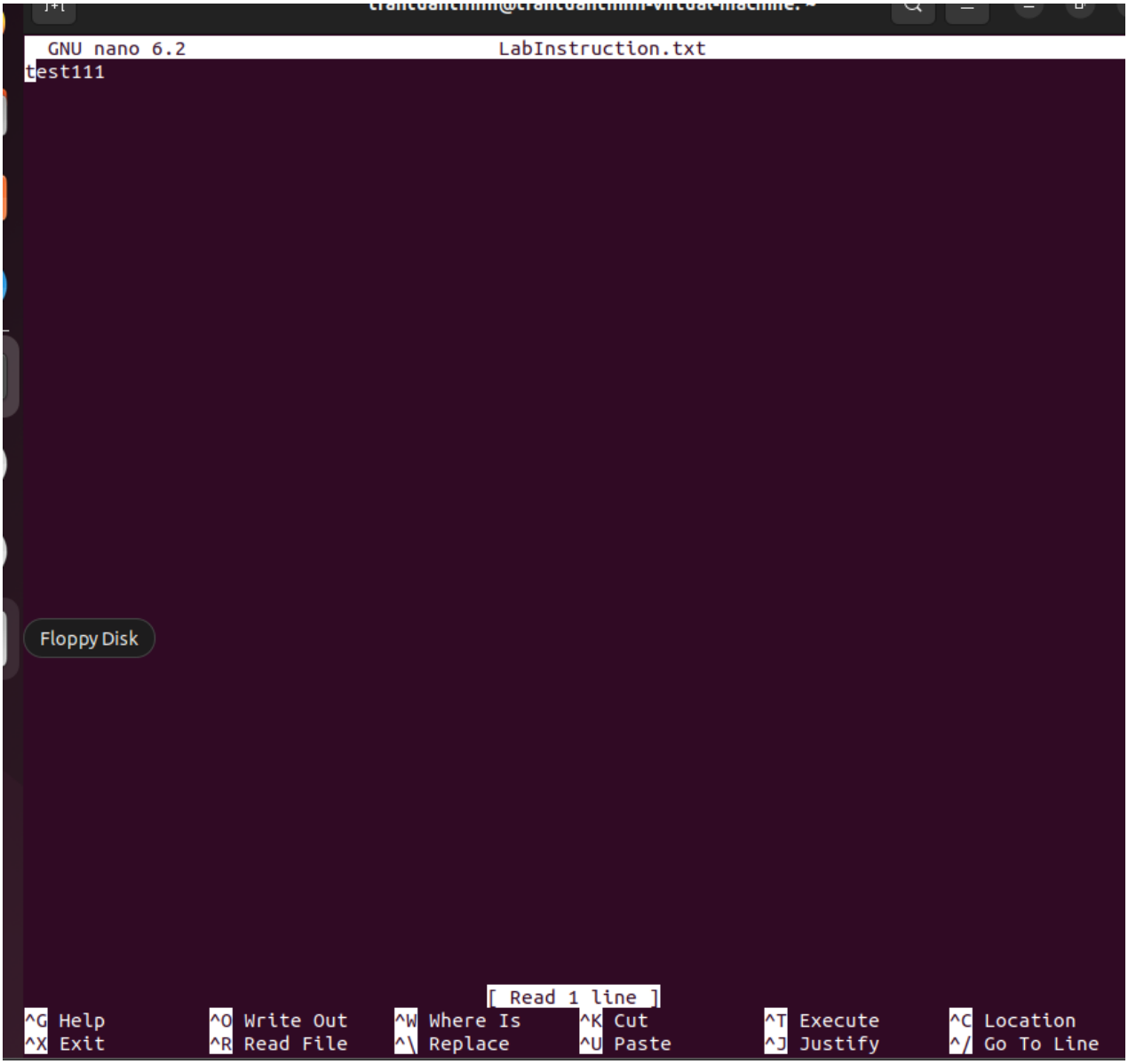
24. Can you view the file inside your current directory?

```
linux-4.17.2/Documentation/btmrvl.txt
linux-4.17.2/Documentation/bus-devices/
linux-4.17.2/Documentation/bus-devices/ti-gpmc.txt
linux-4.17.2/Documentation/bus-virt-phys-mapping.txt
linux-4.17.2/Documentation/cachetlb.txt
linux-4.17.2/Documentation/cdrom/
linux-4.17.2/Documentation/cdrom/00-INDEX
linux-4.17.2/Documentation/cdrom/Makefile
linux-4.17.2/Documentation/cdrom/cdrom-standard.tex
linux-4.17.2/Documentation/cdrom/ide-cd
linux-4.17.2/Documentation/cdrom/packet-writing.txt
linux-4.17.2/Documentation/cgroup-v1/
linux-4.17.2/Documentation/cgroup-v1/00-INDEX
linux-4.17.2/Documentation/cgroup-v1/blkio-controller.txt
linux-4.17.2/Documentation/cgroup-v1/cgroups.txt
linux-4.17.2/Documentation/cgroup-v1/cpuacct.txt
linux-4.17.2/Documentation/cgroup-v1/cpusets.txt
linux-4.17.2/Documentation/cgroup-v1/devices.txt
linux-4.17.2/Documentation/cgroup-v1/freezer-subsystem.txt
linux-4.17.2/Documentation/cgroup-v1/hugetlb.txt
linux-4.17.2/Documentation/cgroup-v1/memcg_test.txt
linux-4.17.2/Documentation/cgroup-v1/memory.txt
linux-4.17.2/Documentation/cgroup-v1/net_cls.txt
linux-4.17.2/Documentation/cgroup-v1/net_prio.txt
linux-4.17.2/Documentation/cgroup-v1/pids.txt
linux-4.17.2/Documentation/cgroup-v1/rdma.txt
linux-4.17.2/Documentation/cgroup-v2.txt
linux-4.17.2/Documentation/circular-buffers.txt
linux-4.17.2/Documentation/clearing-warn-once.txt
linux-4.17.2/Documentation/clk.txt
linux-4.17.2/Documentation/cma/
linux-4.17.2/Documentation/cma/debugfs.txt
```

25. Edit the file “LabInstruction.txt”.

Place the following text in “LabInstruction.txt” and save it.

The laboratory courses offered cover a wide range of disciplines and methodologies aimed at providing students with the knowledge and practical skills required for advanced studies and future careers in biotechnology, biomedicine, and academia.



26. Count the number of characters, words, or lines in the file “LabInstruction.txt”.
27. View the content of the file “LabInstruction.txt” in the terminal.

```
trantuanthinh@trantuanthinh-virtual-machine:~$ nano LabInstruction.txt
trantuanthinh@trantuanthinh-virtual-machine:~$ nano LabInstruction.txt
trantuanthinh@trantuanthinh-virtual-machine:~$ nano LabInstruction.txt
trantuanthinh@trantuanthinh-virtual-machine:~$ wc LabInstruction.txt
1 1 8 LabInstruction.txt
trantuanthinh@trantuanthinh-virtual-machine:~$ cat LabInstruction.txt
test111
trantuanthinh@trantuanthinh-virtual-machine:~$
```

```
test111
LabInstruction.txt (END)
```

28. Write the output of “man wc” towards a new file “docs_for_wc_program.txt”. [Hints: You

need to create the file “docs_for_wc_program.txt” first.]

29. View the content of the file “docs_for_wc_program.txt”.

```
1 1 8 LabInstruction.txt
trantuanthinh@trantuanthinh-virtual-machine:~$ cat LabInstruction.txt
test111
trantuanthinh@trantuanthinh-virtual-machine:~$ man wc
trantuanthinh@trantuanthinh-virtual-machine:~$ man wc > docs_for_wc_program.txt
trantuanthinh@trantuanthinh-virtual-machine:~$ cat docs_for_wc_program.txt
WC(1)                            User Commands                                W

NAME
       wc - print newline, word, and byte counts for each file

SYNOPSIS
       wc [OPTION]... [FILE]...
       wc [OPTION]... --files0-from=F

DESCRIPTION
       Print  newline, word, and byte counts for each FILE, and a total line if more than
       FILE is specified.  A word is a non-zero-length sequence of  characters  delimited
       white space.

       With no FILE, or when FILE is -, read standard input.
```

30. Append the output of “man ls” towards the file “docs_for_wc_program.txt”. Again, view the content of the file.

```
trantuanthinh@trantuanthinh-virtual-machine:~$ man ls >> docs_for_wc_program.txt
trantuanthinh@trantuanthinh-virtual-machine:~$ cat docs_for_wc_program.txt
LS(1)                            User Commands                               LS(

NAME
       ls - list directory contents

SYNOPSIS
       ls [OPTION]... [FILE]...

DESCRIPTION
       List information about the FILEs (the current directory by default).  Sort entries a
       phabetically if none of -cftuvSUX nor --sort is specified.

       Mandatory arguments to long options are mandatory for short options too.

       -a, --all
              do not ignore entries starting with .

       -A, --almost-all
              do not list implied . and ..

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

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

Trash

31. Create a text file named “mylist.txt” that contains the following lines:

cat

dog
horse
cow

Observe that the animals are not listed in alphabetical order.
What do if you need to list them in order? [Hints: You can pull the contents of the file into the *sort* command by using the < operator.