CSE302

Pham Tran Gia Hung - 2331200513

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.

- I download Ubuntu from Microsoft store

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.

```
hung@Wbestwaifu:~$ ls
CSE302
hung@Wbestwaifu:~$ |
```

7. Change your current directory towards "CSE302".

```
hung@Wbestwaifu:~$ cd CSE302
hung@Wbestwaifu:~/CSE302$ \
>
```

8. Return from "CSE302" directory towards your home directory.

```
hung@Wbestwaifu:~/CSE302$ cd
hung@Wbestwaifu:~$ cd
hung@Wbestwaifu:~$ |
```

9. Create another directory named as "SCIT".

```
hung@Wbestwaifu:~$ mkdir SCIT
hung@Wbestwaifu:~$ |
```

10. View the directory.

```
hung@Wbestwaifu:~$ ls
CSE302   SCIT
```

11. Change your current directory towards "SCIT".

```
hung@Wbestwaifu:~$ cd SCIT
hung@Wbestwaifu:~/SCIT$ |
```

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

```
hung@Wbestwaifu:~/SCIT$ cd ~
hung@Wbestwaifu:~$ pwd
/home/hung
```

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

```
hung@Wbestwaifu:~$ cd CSE302
hung@Wbestwaifu:~/CSE302$ touch Lab1
hung@Wbestwaifu:~/CSE302$ |
```

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

```
hung@Wbestwaifu:~/CSE302$ cp Lab1 Lab2
hung@Wbestwaifu:~/CSE302$ |
```

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

```
hung@Wbestwaifu:~/CSE302$ cp Lab1 ../SCIT/Practice1
```

16. Rename the file "Lab1" as "Practice Lab 1".

```
hung@Wbestwaifu:~/CSE302$ mv Lab1 "Practice Lab1"
hung@Wbestwaifu:~/CSE302$
```

17. Delete the file "Lab2".

```
hung@Wbestwaifu:~/CSE302$ rm Lab2
hung@Wbestwaifu:~/CSE302$
```

18. Delete the directory "SCIT".

```
hung@Wbestwaifu:~/CSE302$ rmdir SCIT
```

19. Read documentation on the command "ls".

```
hung@Wbestwaifu:~/CSE302$ man ls
```

```
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
Manual page ls(1) line 2 (press h for help or q to quit)
```

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

```
hung@Wbestwaifu:~/CSE302$ man -k sort
apt-sortpkgs (1)      - Utility to sort package index files
comm (1)              - compare two sorted files line by line
sort (1)              - sort lines of text files
tsort (1)             - perform topological sort
```

21. Install a software package named as "build-essential".

```
hung@Wbestwaifu:~/CSE302$ sudo apt update
[sudo] password for hung:
Hit:1 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Fetched 126 kB in 2s (53.9 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
78 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

```
Get:10 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libitm1 amd64 14.2.0-4ubuntu2~24.04 [29.7 kB]
Get:11 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libatomic1 amd64 14.2.0-4ubuntu2~24.04 [10.5 kB]
Get:12 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libasan8 amd64 14.2.0-4ubuntu2~24.04 [3031 kB]
Get:13 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 liblsan0 amd64 14.2.0-4ubuntu2~24.04 [1322 kB]
Get:14 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libtsan2 amd64 14.2.0-4ubuntu2~24.04 [2772 kB]
Get:15 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libubsan1 amd64 14.2.0-4ubuntu2~24.04 [1184 kB]
Get:16 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libhwasan0 amd64 14.2.0-4ubuntu2~24.04 [1641 kB]
Get:17 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libquadmath0 amd64 14.2.0-4ubuntu2~24.04 [153 kB]
Get:18 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libgcc-13-dev amd64 13.3.0-6ubuntu2~24.04 [2681 kB]
Get:19 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 gcc-13-x86-64-linux-gnu amd64 13.3.0-6ubuntu2~24.04 [2
.1 MB]
Get:20 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 gcc-13 amd64 13.3.0-6ubuntu2~24.04 [494 kB]
Get:21 http://archive.ubuntu.com/ubuntu noble/main amd64 gcc-x86-64-linux-gnu amd64 4:13.2.0-7ubuntu1 [1212 B]
Get:22 http://archive.ubuntu.com/ubuntu noble/main amd64 gcc amd64 4:13.2.0-7ubuntu1 [5018 B]
Get:23 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libaom3 amd64 3.8.2-2ubuntu0.1 [1941 kB]
Get:24 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libc-dev-bin amd64 2.39-0ubuntu8.3 [60.8 kB]
Get:25 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libheif-plugin-aomdec amd64 1.17.6-1ubuntu4.1 [10.4 kB
Get:26 http://archive.ubuntu.com/ubuntu noble/main amd64 libde265-0 amd64 1.0.15-1build3 [166 kB]
Get:27 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libheif-plugin-libde265 amd64 1.17.6-1ubuntu4.1 [8176
]
Get:28 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libheif1 amd64 1.17.6-1ubuntu4.1 [275 kB]
Get:29 http://archive.ubuntu.com/ubuntu noble/main amd64 libxpm4 amd64 1:3.5.17-1build2 [36.5 kB]
Get:30 http://archive.ubuntu.com/ubuntu noble/main amd64 libgd3 amd64 2.3.3-9ubuntu5 [128 kB]
Get:31 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libc-devtools amd64 2.39-0ubuntu8.3 [69.7 kB]
Get:32 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 linux-libc-dev amd64 6.8.0-51.52 [1769 kB]
Get:33 http://archive.ubuntu.com/ubuntu noble/main amd64 libcrypt-dev amd64 1:4.4.36-4build1 [112 kB]
Get:34 http://archive.ubuntu.com/ubuntu noble/main amd64 rpcsvc-proto amd64 1.4.2-0ubuntu7 [67.4 kB]
Get:35 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libc6-dev amd64 2.39-0ubuntu8.3 [2164 kB]
Get:36 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libheif-plugin-aomenc amd64 1.17.6-1ubuntu4.1 [14.7 kB
Get:37 http://archive.ubuntu.com/ubuntu noble/main amd64 manpages-dev all 6.7-2 [2013 kB]
```

22. Print the version of "gcc" compiler.

```
hung@Wbestwaifu:~/CSE302$ gcc --version
gcc (Ubuntu 13.3.0-6ubuntu2~24.04) 13.3.0
Copyright (C) 2023 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.
```

23. Download the following file "https://cdn.kernel.org/pub/linux/kernel/v4.x/linux-

4.17.2.tar.xz" from internet.

```
hung@Wbestwaifu:~/CSE302$ wget https://cdn.kernel.org/pub/linux/kernel/v4.x/linux-4.17.2.tar.xz
--2025-01-19 08:52:45--  https://cdn.kernel.org/pub/linux/kernel/v4.x/linux-4.17.2.tar.xz
Resolving cdn.kernel.org (cdn.kernel.org)... 199.232.45.176, 2a04:4e42:48::432
Connecting to cdn.kernel.org (cdn.kernel.org)|199.232.45.176|: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  41.3MB/s    in 2.4s

2025-01-19 08:52:48 (41.3 MB/s) - 'linux-4.17.2.tar.xz' saved [102167060/102167060]
```

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

```
hung@Wbestwaifu:~/CSE302$ ls
'Practice Lab1'   linux-4.17.2.tar.xz
```

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.

```
hung@Wbestwaifu:~/CSE302$ nano LabInstruction.txt
```

```
  GNU nano 7.2                          LabInstruction.txt *
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".

```
hung@Wbestwaifu:~/CSE302$ wc LabInstruction.txt
  3  34 244 LabInstruction.txt
```

27. View the content of the file "LabInstruction.txt" in the terminal.

```
hung@Wbestwaifu:~/CSE302$ cat LabInstruction.txt
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
```

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.]

```
hung@Wbestwaifu:~/CSE302$ nano docs_for_wc_program.txt
hung@Wbestwaifu:~/CSE302$ man wc > docs_for_wc_program.txt
```

29. View the content of the file "docs_for_wc_program.txt".

```
WC(1)                              User Commands                              WC(1)

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 one FILE is specified.  A
       word is a non-zero-length sequence of printable characters delimited by white space.

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

       The options below may be used to select which counts are printed, always  in  the  following  order:  newline,
       word, character, byte, maximum line length.

       -c, --bytes
              print the byte counts

       -m, --chars
              print the character counts

       -l, --lines
              print the newline counts

       --files0-from=F
              output version information and exit

AUTHOR
       Written by Paul Rubin and David MacKenzie.

REPORTING BUGS
       GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
       Report any translation bugs to <https://translationproject.org/team/>

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       <https://gnu.org/licenses/gpl.html>.
       This  is  free software: you are free to change and redistribute it.  There is NO WARRANTY, to the extent per-
       mitted by law.

SEE ALSO
       Full documentation <https://www.gnu.org/software/coreutils/wc>
       or available locally via: info '(coreutils) wc invocation'

GNU coreutils 9.4                        April 2024                              WC(1)
```

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

```
hung@Wbestwaifu:~/CSE302$ man ls >> docs_for_wc_program.txt
hung@Wbestwaifu:~/CSE302$ cat docs_for_wc_program.txt
WC(1)                              User Commands                              WC(1)

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 one FILE is specified.  A
       word is a non-zero-length sequence of printable characters delimited by white space.

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

       The options below may be used to select which counts are printed, always  in  the  following  order:  newline,
       word, character, byte, maximum line length.

       -c, --bytes
             print the byte counts

       -m, --chars
             print the character counts

       -l, --lines
             print the newline counts
```

```
       --format=WORD
             across -x, commas -m, horizontal -x, long -l, single-column -1, verbose

       --full-time
             like -l --time-style=full-iso

       -g     like -l, but do not list owner

       --group-directories-first
             group  directories before files; can be augmented with a --sort option,
             disables grouping

       -G, --no-group
             in a long listing, don't print group names

       -h, --human-readable
             with -l and -s, print sizes like 1K 234M 2G etc.

       --si   likewise, but use powers of 1000 not 1024

       -H, --dereference-command-line
             follow symbolic links listed on the command line

       --dereference-command-line-symlink-to-dir
             follow each command line symbolic link that points to a directory
```

```
        can change the settings.  Use the dircolors(1) command to set it.

   Exit status:
        0      if OK,

        1      if minor problems (e.g., cannot access subdirectory),

        2      if serious trouble (e.g., cannot access command-line argument).

AUTHOR
        Written by Richard M. Stallman and David MacKenzie.

REPORTING BUGS
        GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
        Report any translation bugs to <https://translationproject.org/team/>

COPYRIGHT
        Copyright © 2023 Free Software Foundation, Inc.  License GPLv3+: GNU  GPL  version  3  or  later
        <https://gnu.org/licenses/gpl.html>.
        This  is  free software: you are free to change and redistribute it.  There is NO WARRANTY, to the extent per-
        mitted by law.

SEE ALSO
        dircolors(1)

        Full documentation <https://www.gnu.org/software/coreutils/ls>
        or available locally via: info '(coreutils) ls invocation'

GNU coreutils 9.4                          April 2024                                    LS(1)
```

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.

```
hung@Wbestwaifu:~/CSE302$ nano mylist.txt
hung@Wbestwaifu:~/CSE302$ |
```

```
hung@Wbestwaifu:~/CSE302$ cat mylist.txt
cat
dog
horse
cow
```

```
hung@Wbestwaifu:~/CSE302$ sort < mylist.txt
cat
cow
dog
horse
```