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Lab02, OS

Q1:

```
aiwaziri - less - man ls - 214x61
LS(1)                                General Commands Manual                                LS(1)

NAME
  ls - list directory contents

SYNOPSIS
  ls [-@ABCFGHILOPRSTUWabcfgghiklmnopqrstuvwxy1%,] [--color=when] [-D format] [file ...]

DESCRIPTION
  For each operand that names a file of a type other than directory, ls displays its name as well as
  any requested, associated information. For each operand that names a file of type directory, ls
  displays the names of files contained within that directory, as well as any requested, associated
  information.

  If no operands are given, the contents of the current directory are displayed. If more than one
  operand is given, non-directory operands are displayed first; directory and non-directory operands
  are sorted separately and in lexicographical order.

  The following options are available:

  -@      Display extended attribute keys and sizes in long (-l) output.

  -A      Include directory entries whose names begin with a dot ('.') except for . and ..
  Automatically set for the super-user unless -I is specified.

  -B      Force printing of non-printable characters (as defined by ctype(3) and current locale
  settings) in file names as \xxx, where xxx is the numeric value of the character in octal.
  This option is not defined in IEEE Std 1003.1-2008 ("POSIX.1").

  -C      Force multi-column output; this is the default when output is to a terminal.

  -D format
  When printing in the long (-l) format, use format to format the date and time output. The
  argument format is a string used by strftime(3). Depending on the choice of format string,
  this may result in a different number of columns in the output. This option overrides the
  -T option. This option is not defined in IEEE Std 1003.1-2008 ("POSIX.1").

  -F      Display a slash ('/') immediately after each pathname that is a directory, an asterisk
  ('*') after each that is executable, an at sign('@') after each symbolic link, an equals
  sign('=') after each socket, a percent sign('%') after each whiteout, and a vertical bar
  ('|') after each that is a FIFO.

  -G      Enable colorized output. This option is equivalent to defining CLICOLOR or COLORTERM in
  the environment and setting --color=auto. (See below.) This functionality can be compiled
  out by removing the definition of COLORLS. This option is not defined in IEEE Std
  1003.1-2008 ("POSIX.1").

  -H      Symbolic links on the command line are followed. This option is assumed if none of the -F,
  -d, or -l options are specified.

  -I      Prevent -A from being automatically set for the super-user. This option is not defined in
  IEEE Std 1003.1-2008 ("POSIX.1").

  -L      Follow all symbolic links to final target and list the file or directory the link
  references rather than the link itself. This option cancels the -P option.

  -O      Include the file flags in a long (-l) output. This option is incompatible with IEEE Std
  1003.1-2008 ("POSIX.1"). See chflags(1) for a list of file flags and their meanings.

  -P      If argument is a symbolic link, list the link itself rather than the link
  it points to.
```

2a.

```
(base) aiwaziri@AiWaziris-MacBook-Pro ~ % ls
Applications      IdeaProjects      Pictures           Sites             Untitled3.ipynb   micromamba        package-lock.json
Desktop           Library           Public            Untitled1.ipynb   Untitled4.ipynb  node_modules     package.json
Documents         Movis             PycharmProjects   Untitled1.ipynb   az               onedrive         pro.txt
Downloads         Music             Screen Studio Projects  Untitled2.ipynb   bin
(base) aiwaziri@AiWaziris-MacBook-Pro ~ % cd PycharmProjects
cd: no such file or directory: PycharmProjects
(base) aiwaziri@AiWaziris-MacBook-Pro ~ % cd PycharmProjects
(base) aiwaziri@AiWaziris-MacBook-Pro PycharmProjects % ls
Closed project  GitHub      README.md  others
(base) aiwaziri@AiWaziris-MacBook-Pro PycharmProjects % cd GitHub
(base) aiwaziri@AiWaziris-MacBook-Pro GitHub % ls
Ai-305-LAB-ML  Ai-361-LAB-IP  Ai-418-LAB-HCI  CS-221-OS
(base) aiwaziri@AiWaziris-MacBook-Pro GitHub % cd CS-221-OS
(base) aiwaziri@AiWaziris-MacBook-Pro CS-221-OS % ls
LAB01  LAB02
(base) aiwaziri@AiWaziris-MacBook-Pro CS-221-OS % cd LAB02
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % ls
INDEX
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % touch waziri_Lab02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % ls
INDEX      waziri_Lab02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % █
```

2b.

```
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % touch waziri_Lab02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % ls
INDEX      waziri_Lab02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % echo "a bunch of text i put using echo" > waziri_LAB02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % cp waziri_LAB02.txt New_waziri_LAB02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % ls
INDEX      New_waziri_LAB02.txt  waziri_Lab02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % █
```

2c.

```
INDEX      New_waziri_LAB02.txt  waziri_Lab02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % mkdir dir_X
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % ls
INDEX      New_waziri_LAB02.txt  dir_X      waziri_Lab02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % █
```

2d.

```
INDEX      New_waziri_LAB02.txt  dir_X      waziri_Lab02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % mv Waziri_LAB02.txt dir_X/
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % ls
INDEX      New_waziri_LAB02.txt  dir_X
(base) aiwaziri@AiWaziris-MacBook-Pro LAB02 % cd dir_X
(base) aiwaziri@AiWaziris-MacBook-Pro dir_X % ls
Waziri_LAB02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro dir_X % █
```

2e.

```
Waziri_LAB02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro dir_X % rm waziri_LAB02.txt
(base) aiwaziri@AiWaziris-MacBook-Pro dir_X % ls
(base) aiwaziri@AiWaziris-MacBook-Pro dir_X %
```

3a.

```
(base) aiwaziri@AiWaziris-MacBook-Pro dir_X % cd /
(base) aiwaziri@AiWaziris-MacBook-Pro / % ls
Applications      System            Volumes           cores             etc               opt               sbin              usr
Library           Users            bin               dev               home              private           tmp               var
(base) aiwaziri@AiWaziris-MacBook-Pro / %
```

3b.

```
(base) aiwaziri@AiWaziris-MacBook-Pro / % cd -
~/PycharmProjects/Github/CS-221-OS/LAB02/dir_X
(base) aiwaziri@AiWaziris-MacBook-Pro dir_X % cd /
(base) aiwaziri@AiWaziris-MacBook-Pro / % cd ~
(base) aiwaziri@AiWaziris-MacBook-Pro ~ %
```

3c.

```
(base) aiwaziri@AiWaziris-MacBook-Pro ~ % ls
Applications  Movies           Sites            az               package-lock.json
Desktop       Music            Untitled.ipynb   bin              package.json
Documents     Pictures         Untitled1.ipynb  micromamba       pro.txt
Downloads     Public           Untitled2.ipynb  node_modules
IdeaProjects  PycharmProjects Untitled3.ipynb  onedrive
Library       Screen Studio Projects Untitled4.ipynb  opt
(base) aiwaziri@AiWaziris-MacBook-Pro ~ % mkdir dir_Y
(base) aiwaziri@AiWaziris-MacBook-Pro ~ % ls
Applications  Movies           Sites            az               opt
Desktop       Music            Untitled.ipynb   bin              package-lock.json
Documents     Pictures         Untitled1.ipynb  dir_Y            package.json
Downloads     Public           Untitled2.ipynb  micromamba       pro.txt
IdeaProjects  PycharmProjects Untitled3.ipynb  node_modules
Library       Screen Studio Projects Untitled4.ipynb  onedrive
(base) aiwaziri@AiWaziris-MacBook-Pro ~ %
```

3d.

```
(base) aiwaziri@AiWaziris-MacBook-Pro ~ % cd dir_Y
(base) aiwaziri@AiWaziris-MacBook-Pro dir_Y % ls
(base) aiwaziri@AiWaziris-MacBook-Pro dir_Y %
```

3e.

```
(base) aiwaziri@AiWaziris-MacBook-Pro dir_Y % cd ..
(base) aiwaziri@AiWaziris-MacBook-Pro ~ % ls
Applications  Movies           Sites            az               opt
Desktop       Music            Untitled.ipynb   bin              package-lock.json
Documents     Pictures         Untitled1.ipynb  dir_Y            package.json
Downloads     Public           Untitled2.ipynb  micromamba       pro.txt
IdeaProjects  PycharmProjects Untitled3.ipynb  node_modules
Library       Screen Studio Projects Untitled4.ipynb  onedrive
(base) aiwaziri@AiWaziris-MacBook-Pro ~ %
```

