

ls:

Prints the contents of a directory (excluding the "." (present directory), ".." (previous directory) and hidden files)

- 1) -a: prints all the contents of the directory including files having names starting with "."
- 2) -l: prints the contents of the directory after each newline
- 3) Corner cases:
 - If any invalid option (other than "-a" and "-l") is entered as input, it will print invalid option.
 - If something is entered in input after the ls and options, it will print invalid command.
 - If "echo -n" is entered, it prints nothing
 - If "echo -E" is entered, it prints "\n" (newline)

cd:

Change current directory to the directory entered in the input

- 1) ~: sets the current directory to the "home" directory
- 2) /: sets the current directory to the "root" directory
- 3) Corner cases:
 - If any invalid option (other than "~" and "/") is entered as input, it will print invalid option.
 - If something is entered in input after the cd and options, it will print invalid command.

pwd:

Prints the current directory

- 1) -P: it is same as the default pwd command
- 2) -L: if the directory is a shortcut to another directory, then it prints the path to that directory
- 3) Corner cases:
 - If any invalid option (other than "-P" and "-L") is entered as input, it will print invalid option.
 - If something is entered in input after the pwd and options, it will print invalid command.

echo:

Prints the string entered in input (with newline character at last)

- 1) -n: prints the string entered in input but without newline character
- 2) -E: it is same as the default echo command
- 3) Corner cases:
 - If any invalid option (other than "-E" and "-n") is entered as input, it will print invalid option.

- If just “echo” is entered in input, then it will print blank space with a newline character.

mkdir:

Creates a new directory or group of new directories

- 1) -m: sets the mode to specified mode given in input (eg, “mkdir -m 0666 d4” creates a directory named d4 with access mode “0666”)
- 2) -v: print a message for each created directory
- 3) Corner cases:
 - If any invalid option (other than “-m” or “-v”) is entered as input, it will print invalid option
 - By default, the command creates directory with 0777 mode i.e. the owner, group and others have mode - create and delete files
 - If the entered directory is already present in the directory, then it will print an error message

Rm:

Deletes a file or group of files

- 1) -i: “-i” first asks for confirmation to delete the file or not
- 2) -v: prints a message for each removed file
- 3) Corner cases:
 - If any invalid option (other than “-i” or “-v”) is entered as input, it will print invalid option
 - If the file entered is not present in the directory, then it will print an error message
 - If the entered file is not a file, instead it’s a directory, it will print an error message

Cat:

Prints the content of a file or group of files

- 1) -n: prints the contents of file(s) with numbering the output lines
- 2) -E: prints ‘\$’ at end of each output line
- 3) Corner cases:
 - If any invalid option (other than “-n” or “-E”) is entered as input, it will print invalid option
 - If the entered file is not a file, instead it’s a directory, it will print an error message

Test case:

```
ls
ls -a
ls -l
cd
cd /
cd ~
pwd
pwd -P
pwd -L
echo hello world
echo -n hello world 2
echo -E hello world 3
date
date -u
date -R
mkdir file1 file 2 .... filen
mkdir -v file1 file2.... filen
mkdir -m <mode> file1 file2 ... filen
rm file1 file 2 .... filen
rm -v file1 file2.... filen
rm -i file1 file2 ... filen
ls &t
ls -a &t
ls -l &t
cd &t
cd / &t
cd ~ &t
pwd &t
pwd -P &t
pwd -L &t
echo hello world &t
echo -n hello world 2 &t
echo -E hello world 3 &t
date &t
date -u &t
```

```
date -R &t
mkdir file1 file 2 .... filen &t
mkdir -v file1 file2.... filen &t
mkdir -m <mode> file1 file2 ... filen &t
rm file1 file 2 .... filen &t
rm -v file1 file2.... filen &t
rm -i file1 file2 ... filen &t
```

and all other invalid commands give their particular error messages