

Interfaces I

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Exercise: Give two examples of asynchronous communication. Give two examples of synchronous communication.

asynchronous: emails, mails

synchronous: zoom conference, phone calls

Exercise: Compare the output of ls vs ls -l and ls -a; describe how they are similar, and how they are different.

ls - names of files and folders from the current repository.

ls -l - more detailed information about for ls command (applies to files).

ls -a - all the files including hidden files and folders

Exercise: Explain pushd and popd; what data structure represents your directory history? Give an example of using them to organise a folder with music.

Pushd - creates a stack and save paths to folders there. Result - folder stack.

Popd - extracts dir from the stack. So the last directory that was added to the stack not is the working dir.

```
(root)/
|
| - bin/
| - boot/
| - dev/
| - etc/
| - home/
|   | - 18692338/
|   |   | - Desktop/
|   |   | - Documents/
|   |   | - Downloads/
|   |   | - hse_projects/
|   |   | - seodo_assistent/
|   |   | - libs/
|   |   | - tmp/
|   |   | - work/
|
| - lib/
| - lib64/
| - media/
| - mnt/
| - opt/
| - proc/
| - root/
| - run/
| - sbin/
```

- | - snap/
- | - srv/
- | - tmp/
- | - usr/
- | - var/

Exercise: Write a shell script that asks the user for their name, and greets them. Sample interaction:

You can find the results in the greeting.sh script

Exercise: Write a shell script that performs "ROT13" (Caesar cipher with shift 13.) For English, encryption and decryption are the same! (Explain why!)

You can find the results in the root13.sh

Exercise: Write a shell function that prints "hidden" if the current directory starts with a dot ".", or if any parent starts with a dot. (Files and directories that start with dots are considered "hidden" on many UNIX-like systems.)

You can find the results in re hidden.sh script