

# Command line lab 1

# Cloning the workshop repo

Type the following on the command line:

```
git clone https://github.com/history-lab/archiving-digital-records.git
```

And you'll see output like this:

```
Cloning into 'archiving-digital-records'
remote: Enumerating objects: 116, done.
.
.
Resolving deltas: 100% (60/60), done.
```

# Understanding what we just did

- `git` tracks collections of files, usually project-related
- repo (aka repository): a collection of files under git control
- repo contains the latest version of files but also all previous versions
- `clone` a git command that you can think of as "copy files + tracking info"

# Navigating the filesystem using Explorer & Editor

1. Click on `08-command-line-lab-1.md` in the `2024` folder
2. Review the "code" for the slide
3. Click on `Open Preview to the Side` - upper RHS of the editor window
4. Control (right) click on a filename to see actions

# Navigating the filesystem from the command line

1. The terminal's current working directory is part of the command line prompt
  - You can also use the `pwd` command to see it
2. List the files in a directory: `ls`
3. See more details: `ls -l`

# Changing directories

- `pwd` : present (i.e., current) working directory
- `cd archiving-digital-records/2024`
- `cd -` change pwd to the previous directory
- time saver: use <tab> key to autocomplete file names

# Viewing files

- `cat 08-command-line-lab-1.md`
- `less 08-command-line-lab-1.md`
  - use less for bigger files
  - navigation options: <return>, <space>, b, h

# Commands in general

- Commands = Programs
- Built-in and user-defined
- Unix (and Linux) origins
- Flags and arguments
  - CLI (command line interface)



# Command flag

- Example: `-l` in `ls -l`
- Modify default command behavior
- Turn a particular command feature on or off
- Begins with a `-`
- Sometimes called an option

# Command argument

- Example: `README.md` in `ls -l README.md`
- Modifies default command behavior
- Specifies input file(s) or data

# Learning more about a command

## 1. GitHub Copilot

- Free for verified students and teachers, see <https://education.github.com>
- Alternatives:
  - Google Codeium
  - Amazon CodeWhisperer

## 2. LLM chat client or web search

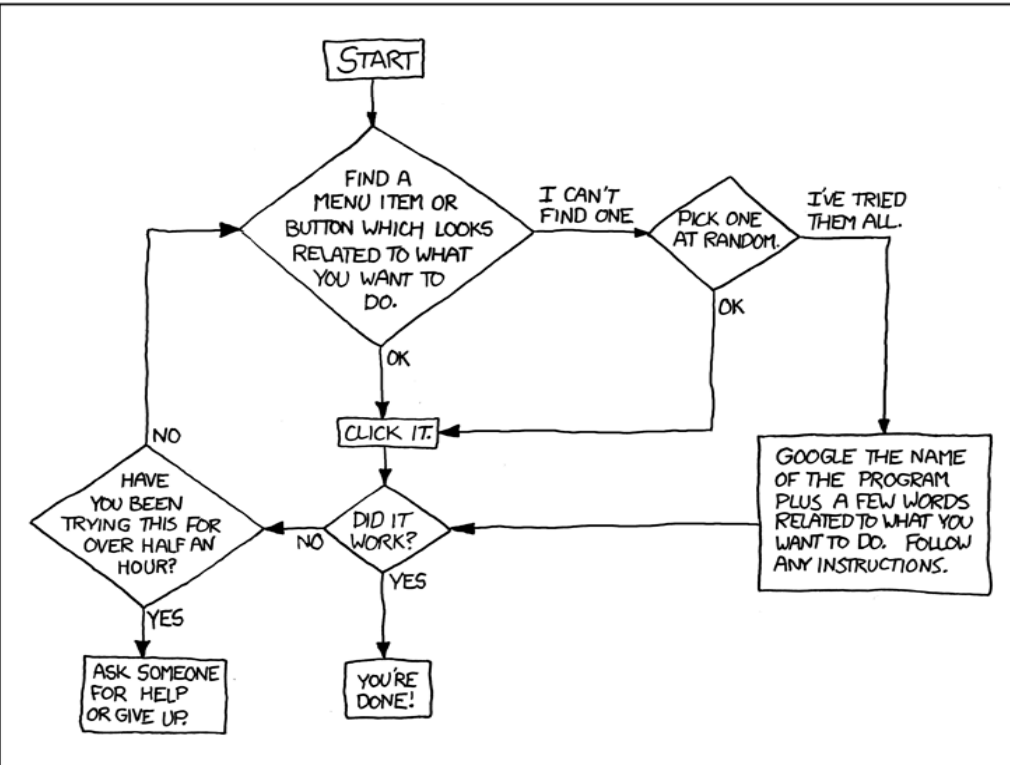
## 3. From the command line:

- `man ls` brings up the manual page

# xkcd 627's flowchart needs updating!

DEAR VARIOUS PARENTS, GRANDPARENTS, CO-WORKERS,  
AND OTHER "NOT COMPUTER PEOPLE."

WE DON'T MAGICALLY KNOW HOW TO DO EVERYTHING IN EVERY PROGRAM. WHEN WE HELP YOU, WE'RE USUALLY JUST DOING THIS:



PLEASE PRINT THIS FLOWCHART OUT AND TAPE IT NEAR YOUR SCREEN.  
CONGRATULATIONS; YOU'RE NOW THE LOCAL COMPUTER EXPERT!

# Exercises

For each exercise, provide a single command that produces the stated results:

1. List all the files in the `archiving-digital-records` directory and its subdirectories.
2. List all the markdown files in `archiving-digital-records/2024` beginning with the number 0.
3. Repeat (2) but in a long format ordered by their last modification.