Plan

* Unix history & context
* Discussion: Files, FD
* Breakout rooms
* Wrap up

Logistics

* Feedback form
  feedback@henrycg.com
* Design project teams
Link

file

File2

Copy

file

File2
Special file

/dev/disk
/dev/random
/dev/zero
/dev/modem
/dev/input/mouse

/proc/reboot
File is a **region in memory**.

permissions issues

- space allocation
- complexity
- big files

2¹⁶ possible addr

\[ \text{mmap()} \]

ptr = open("file.txt")
ptr.resize()
ptr[2] = 'a'
ptr[3] = 'b'
ptr[2^16] = mmap()

`fd = open("file.txt", "r")`

bytes = read(fd, ...)
array = read_row(file, row_id)

[cat, dog, 7, 15]
```
$ myprog > /dev/printer

$ myprog > /dev/network/henry's computer

$ myprog | mail henrycg@mit.edu
```
Should be able to write to this drop box, but not read, not delete.

Everyone: read, write, execute

Everyone can execute, owner is Bob

10th bit setuid bit

Submit