

CS 208

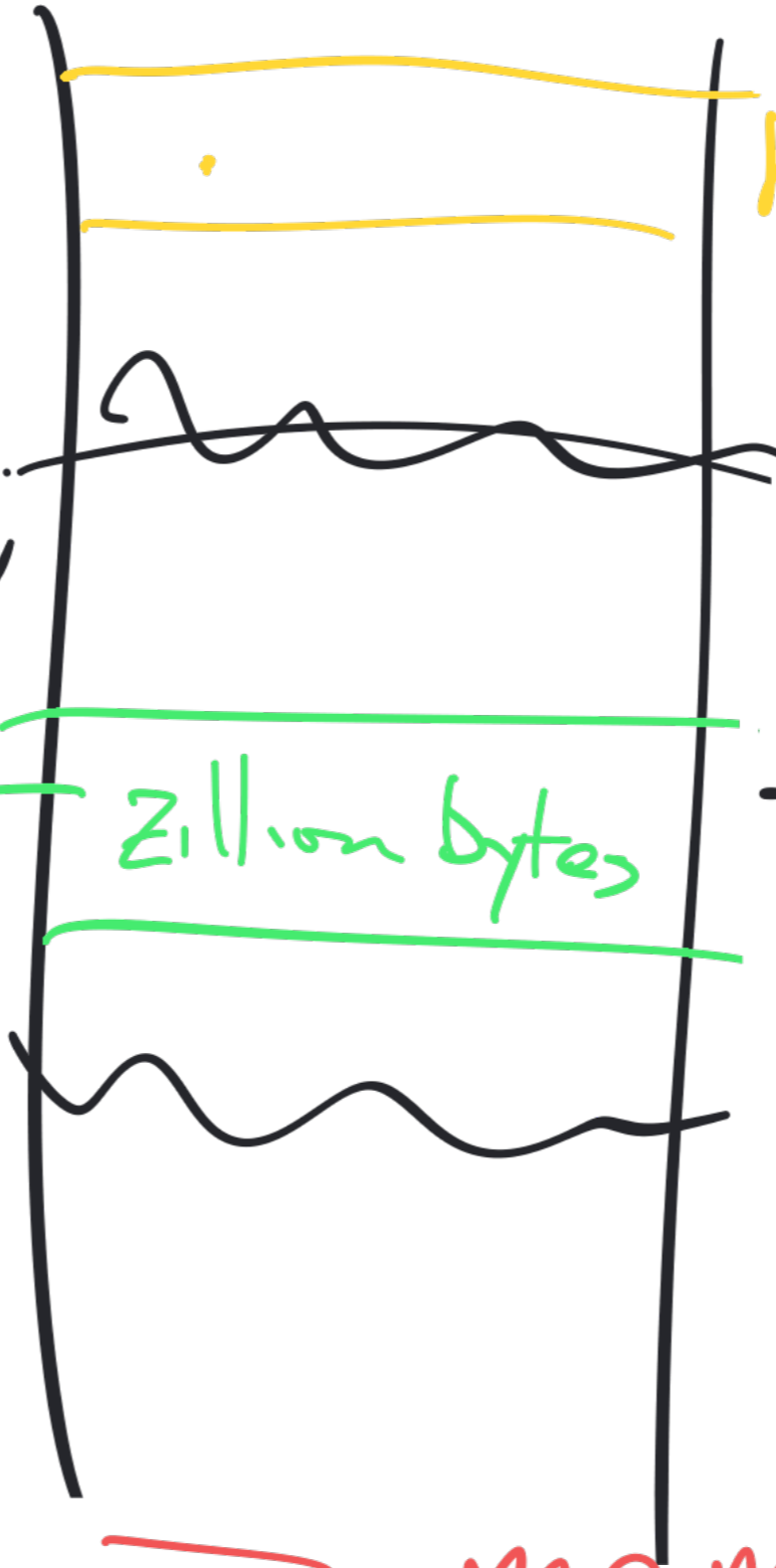
Mon, 20 Feb 2023

malloc

`p = malloc(211111);`

`free(p);`

forget

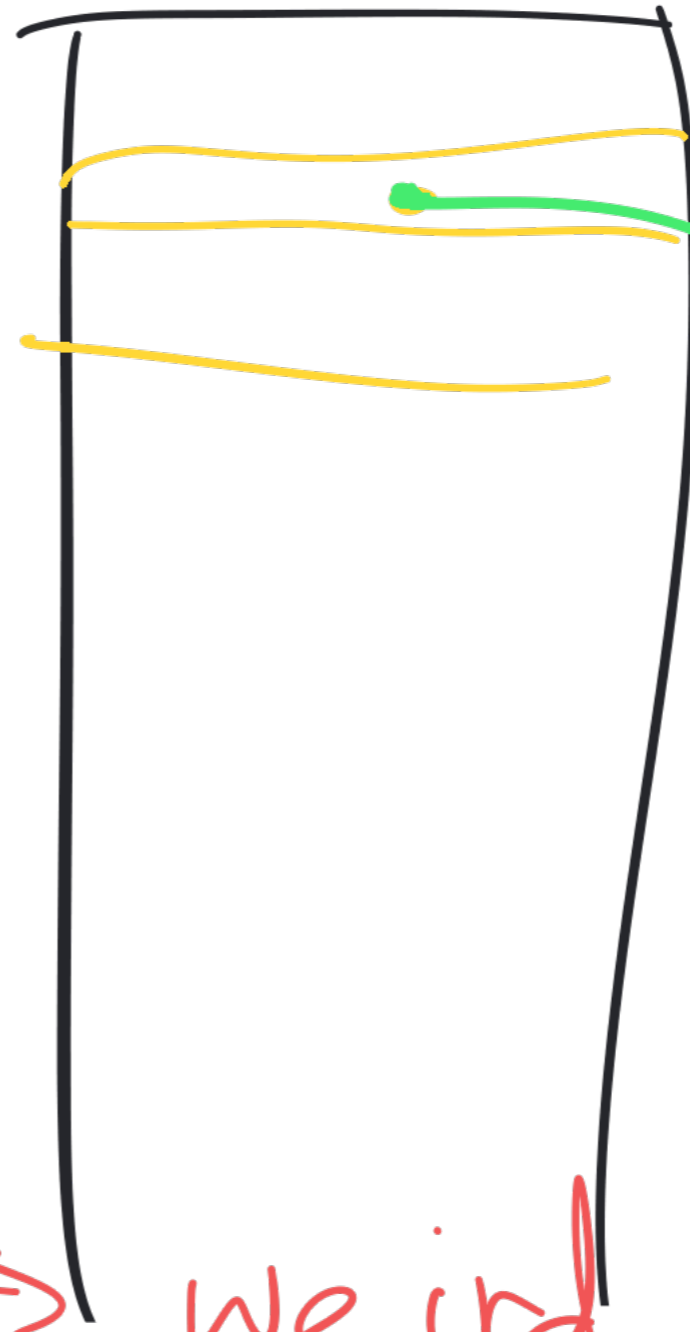


heap descriptor
data structure

heap

memory leak

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



f.d. table

open
file.txt

close(fd)

forget → weird problems

fork ~

- ① creates a process data structure
- ② child runs
- ③ child terminates
- ④ OS does not immediately discard

Why not? parent might need the child's exit status.

Only discards child if wait gets called by parent

Command A | Command B

Data structure for the pipe
includes a buffer

Command A writes to buffer

Command B reads from buffer

output fills buffer?

Command A goes to sleep

input empty?

Command B goes to sleep

Weird thing

int pid1 = Fork();

~~int pid2 = fork();~~ ←

