CS 326-02 Lab File Descriptors

Project 01
   Results
   50% points back
   Code quality

File Descriptors

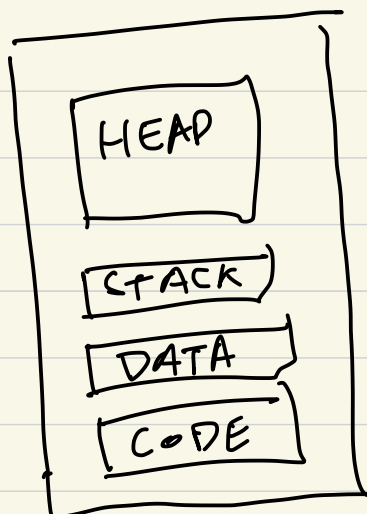|	
Files	open() / close() / read() / write()
Processes	fork() / exec() / wait() / kill()
Redirection	dup()
Pipes	pipe()

File Descriptors

   small non-negative integers
   represent and index into the
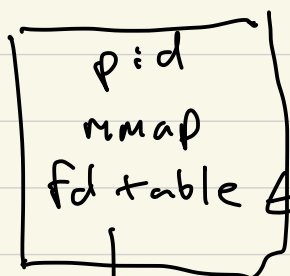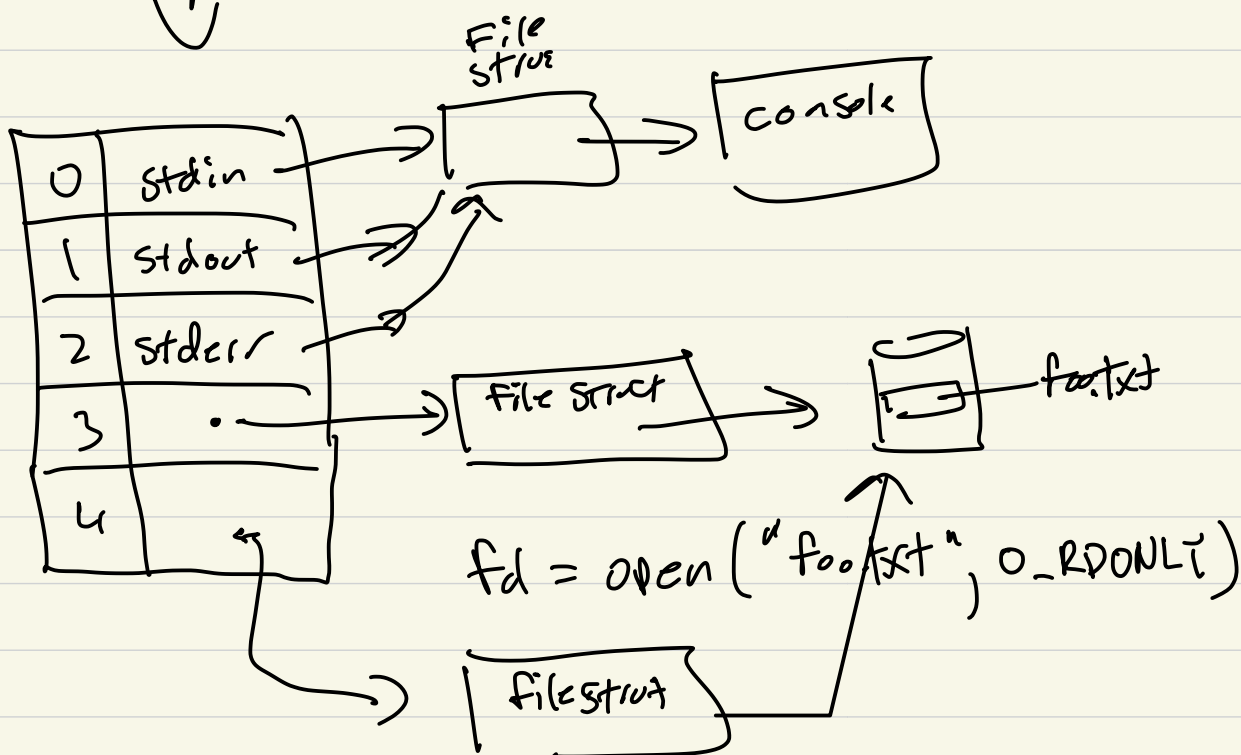   file descriptor table

Process)

HEAP

STACK

DATA

CODE

User

_____

Kernel

proc

pid
mmap
fd table → file descriptor table

process
control
block

File
struct → console

0	stdin
1	stdout
2	stderr
3	•
4	

File struct → foo.txt

fd = open("foo.txt", O_RDONLY)

filestruct

O_CREATE) O_WRONLY

0x200 | 0x001 = 0x201

0010 0000 0000   0000 0000 0001
| 0000 0000 0001

0010 0000 0001