

more file systems

<fd, offset>

fd table
struct file
in-memory inode
disk inode

<dev, block num>

inode num
size
device info.
datablocks

* Labquiz 4.

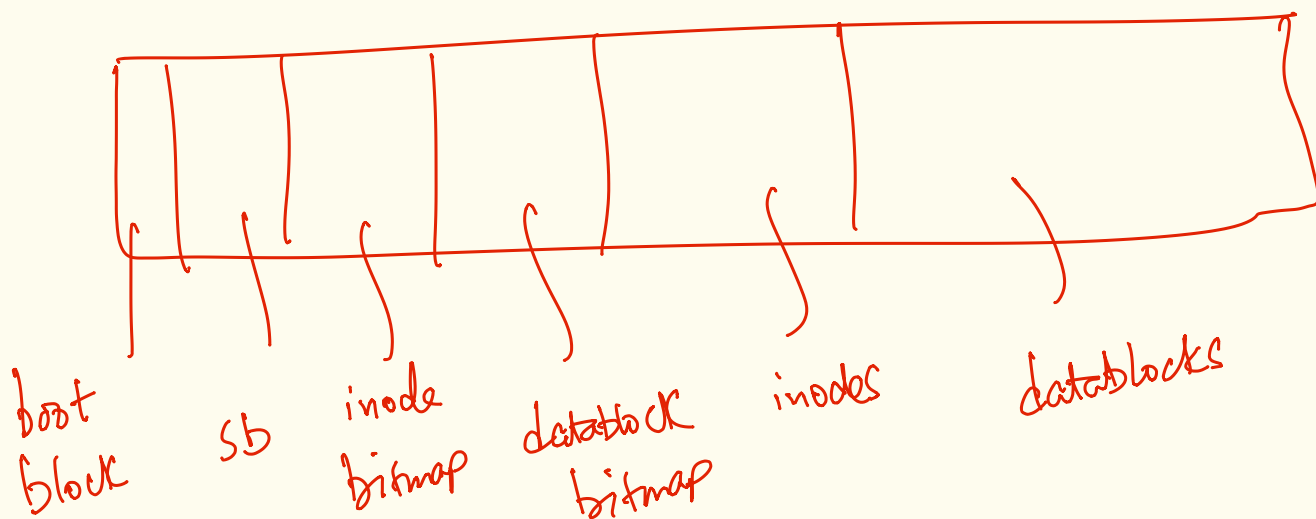
9th April

Thu.

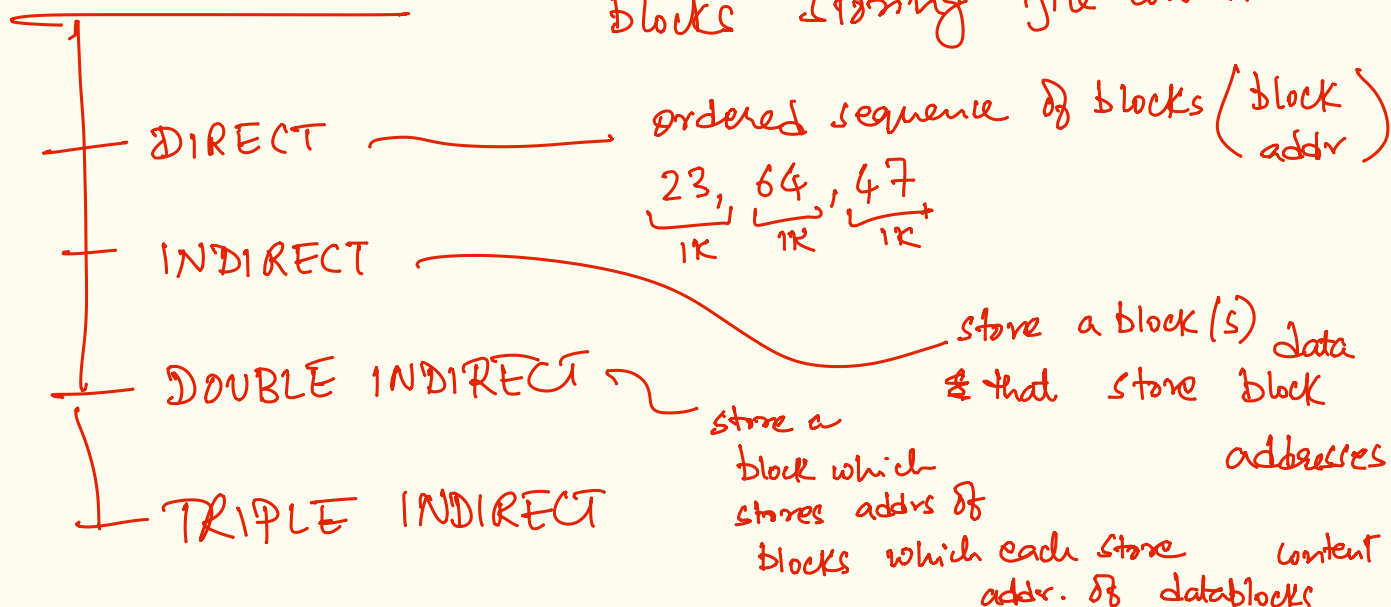
1:45pm.

* Lab help
sessions

— ??

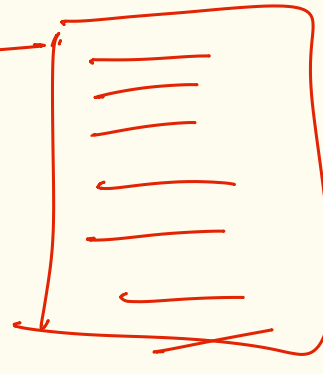


datablocks — meta data in the inode about blocks storing file content.



1 INDIRECT $\rightarrow$ 2023

on 2023 block



$\frac{1024}{4} \leftarrow$ size of addr
 $= 256$
block addresses

xv6.

$\underbrace{\text{INDIRECT} + 1}_{12} \underbrace{}_1$ indirect block

$$= \frac{1024}{4} = 256$$

default
max xv6 def. file size = 268 blocks.

④ $fd = \text{open}(\underbrace{"/home/"}_{\text{path components}} \underbrace{\text{foo.txt}}_{\text{path components}});$

Q what is directory?

it a a file

w/ contents — name inum — —

inode type = DIR

FS actions

① $\sim$ lookup inode via inode num of /
 $\hookrightarrow$ lread

$\sim$ check permissions.

$\sim$ look for home in listing / contents of file / directory /

loop for inums in path

↓ if recursive lookup on path
is valid
then open proceeds to create other
objects.

