

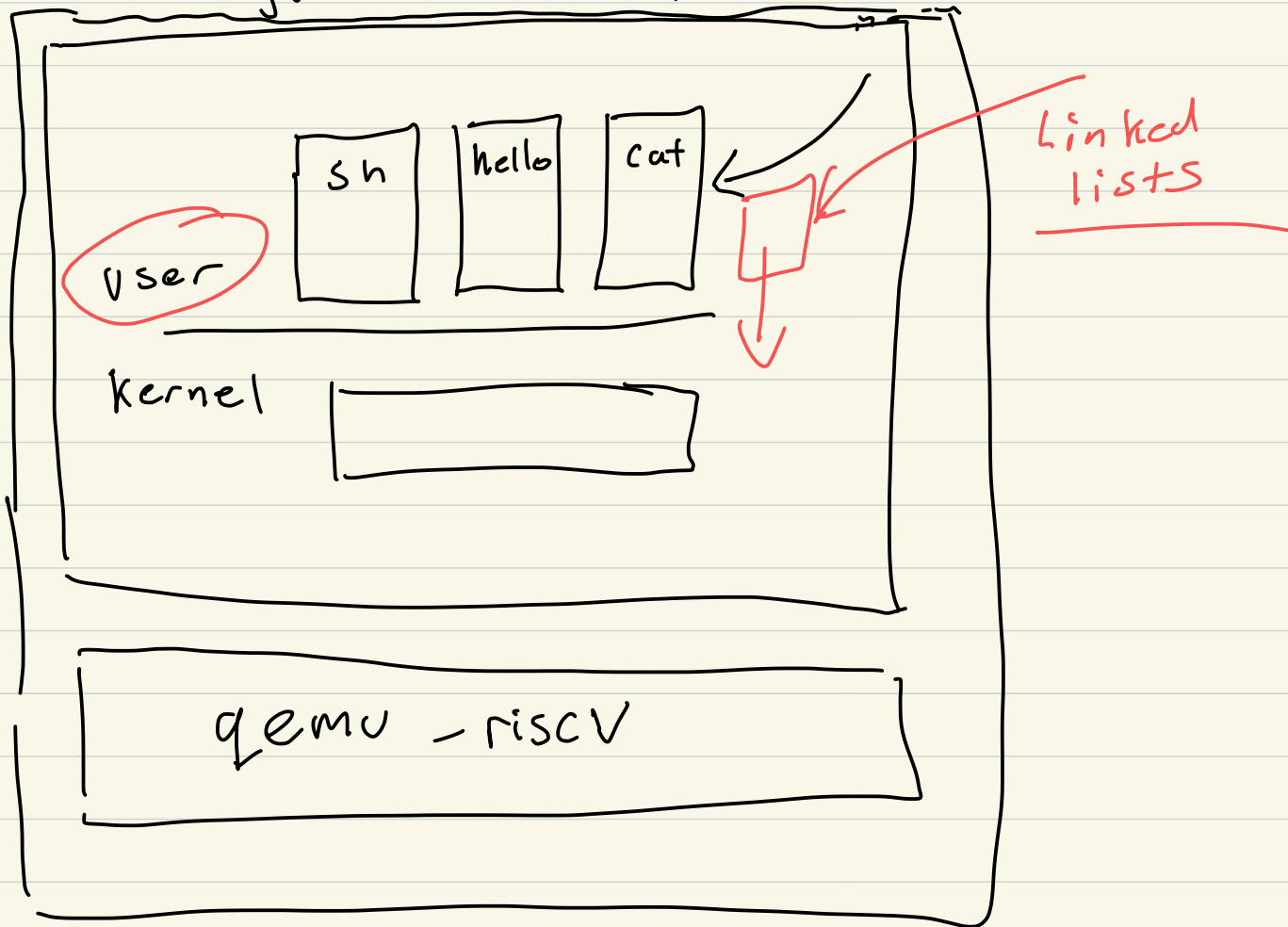
CS 326-01

C Programming

Lab 01

Little big picture

Editor configuration and tabs



your
OS

macOS , Linux (griffin) , Window

Editors

Use spaces instead of tabs for indentation
2 spaces for indentation

micro, vim config

C programs

Preprocessor → #include < >

Data

- ① global
- ② local (stack)
- ③ heap (malloc / free)

Functions

```
int  
foo (int x, char *s)  
{
```

}



statements

if/else
for
while
assignment

expressions

arithmetic +, -, *, /

<, >, <=

func call

Data types

primitive types

int, char, float, double

32 bit machine or 64 bit machine

int 4 bytes

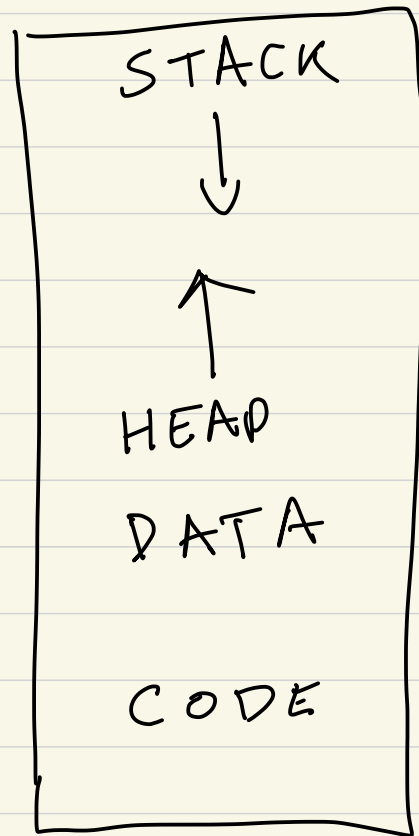
int 4 bytes
long 8 bytes

int* 4 bytes

int* 8 bytes

Sizes.c

#include



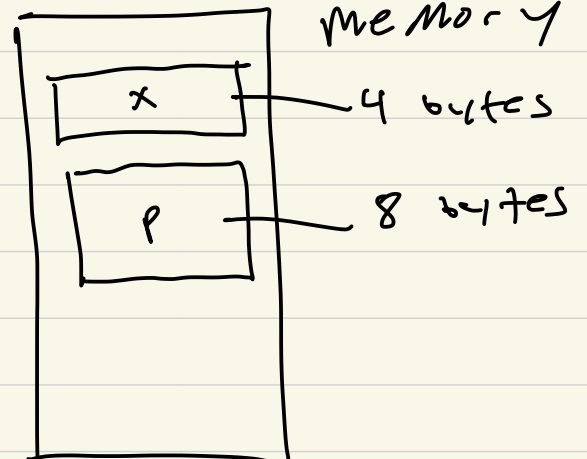
Memory
for
a process

pointers

foo ()
{

int x;
(int *)p;

Stack



p = &x; ↙ address of

x = 99;

*p = 99;

↑

dereferencing

int y;

y = *p;

pointer to pointers

int x;

(int *)p;

(int **)pp;

p = &x;

pp = &p;

**pp = 99;

