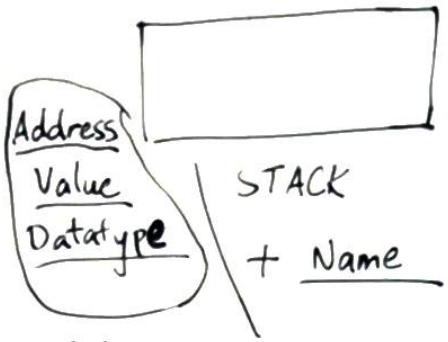
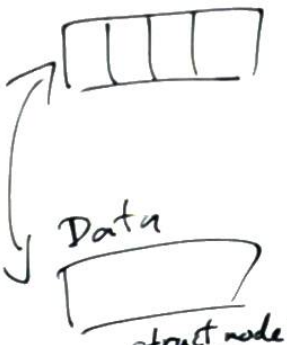
# Memory

struct = class - methods

6/19/17



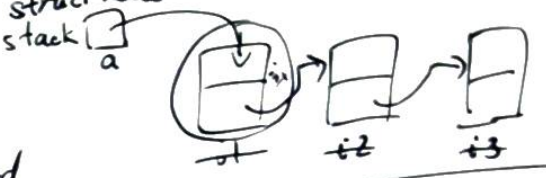




{ //static array size determined before compile.
int ia[10];

STACK HEAP

Dynamic memory allocation

struct node * linked list




struct record r[100];


struct point

{
int x;
int y;

struct point [3]

struct record
{
int acctno;
char name[25];
char address[80];
struct record * next;

NULL — 0 (pointer datatype)

STACK

NULL or not null
start

5553
Dave
3333
acct no
name
address

input

Work backwords
Trace → Pseudocode

add record


Dangling pointer
Memory leak

{
int *p;
*p = 10;
printf("%d", *p);
}

10

value ?

p
(int*)

delete record

STACK
12100
start
222 acct

?

allocate space of the heap and store its address in the next field of the record whose address is in temp.