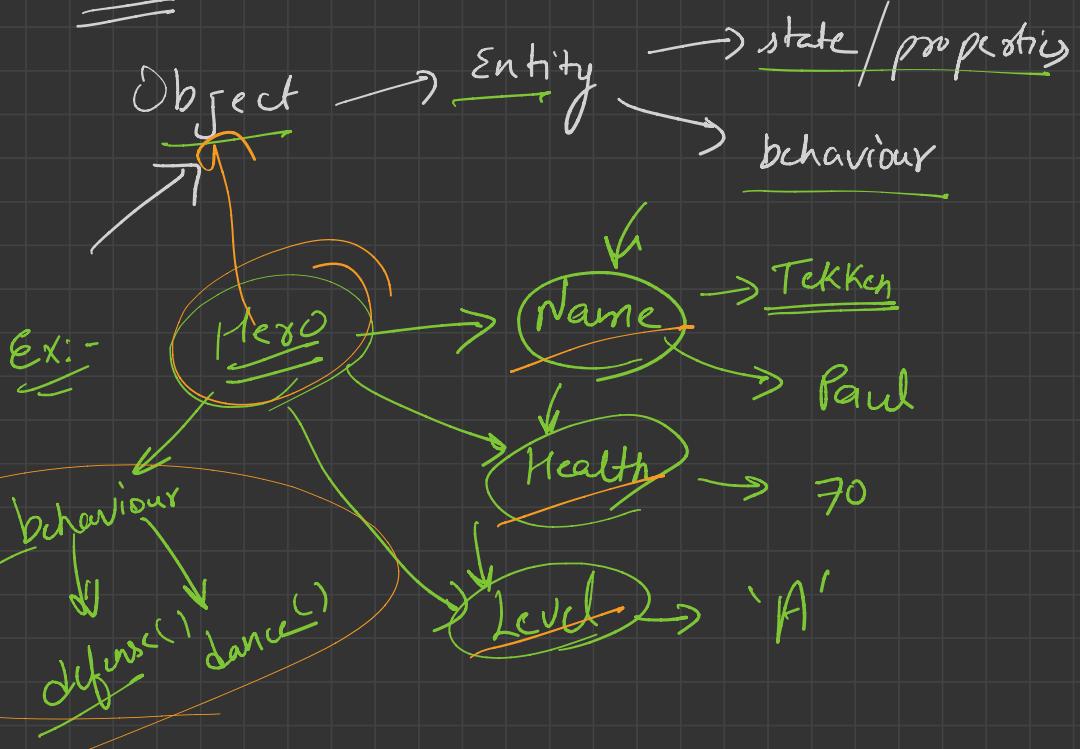
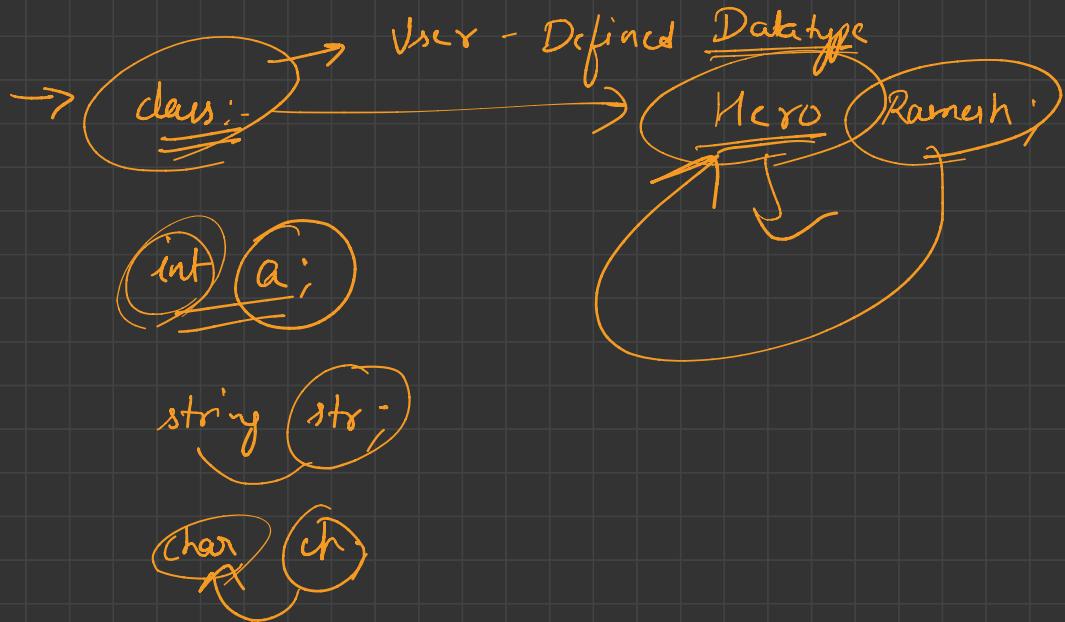



OOPS

→ what → ?

==





Class :- Hero



Hero h1;

obj = h1

garbage value

4

health =

Blueprint

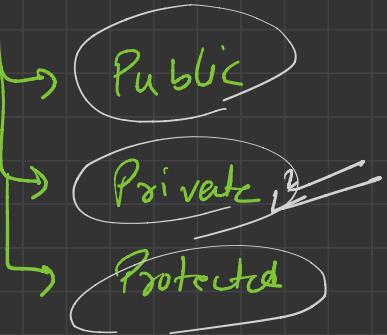
Template
Blueprint

→ Empty class → No properties

Access properties / Data members

Using ". " Operator

→ Access Modifiers:-



By default

→ Public

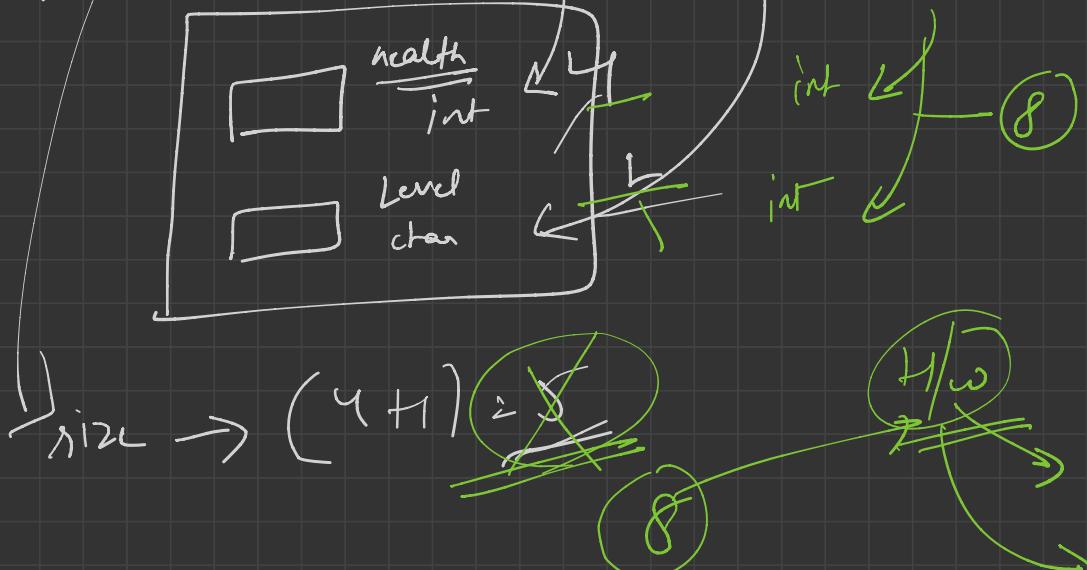
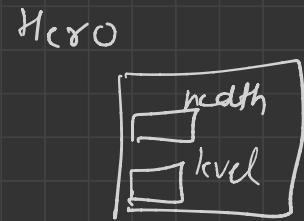
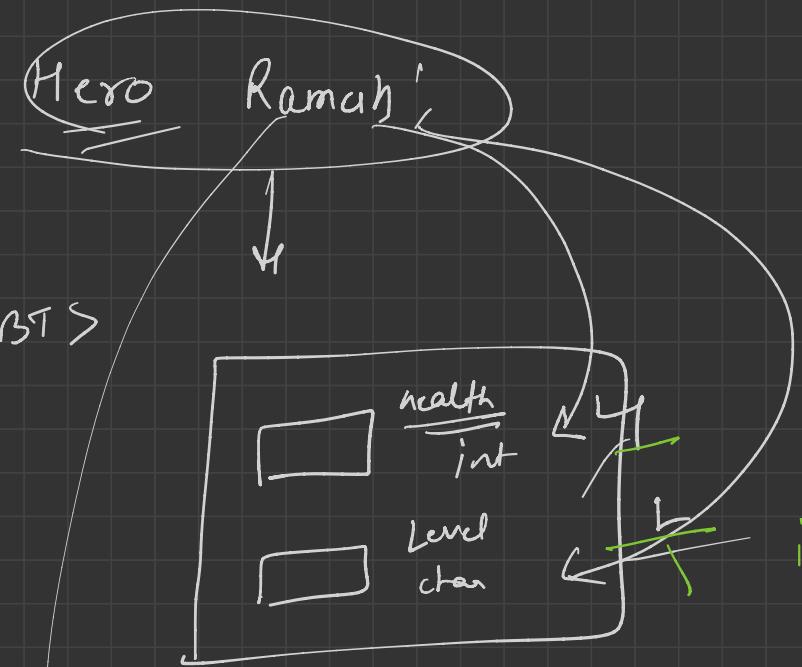
⇒ Private

⇒ Protected

→ Getter / Setter →

Fetch
Reset

Cond = Apply

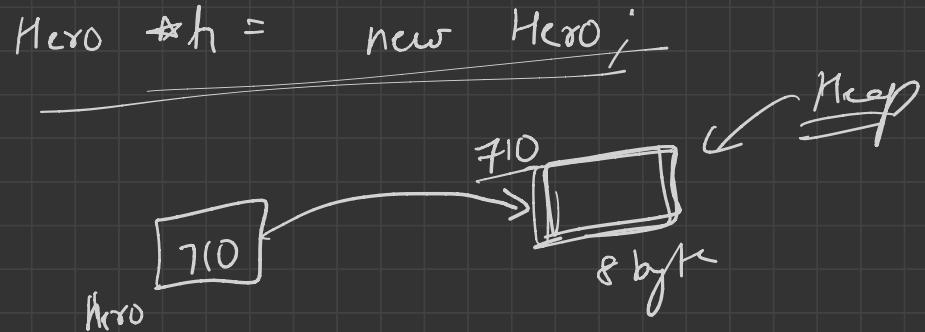
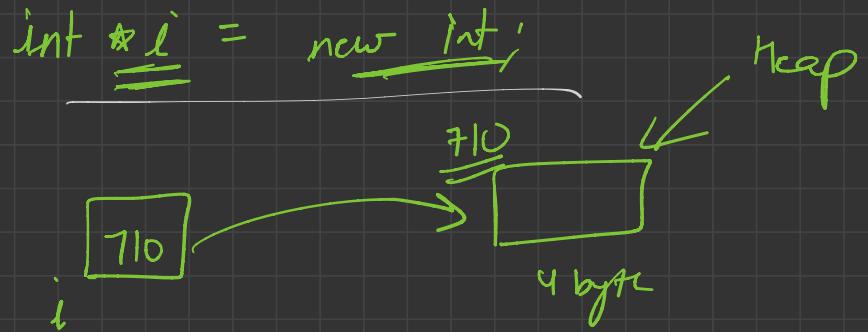


~~H/w~~

~~padding~~

~~greedy alignment~~

dynamic allocation



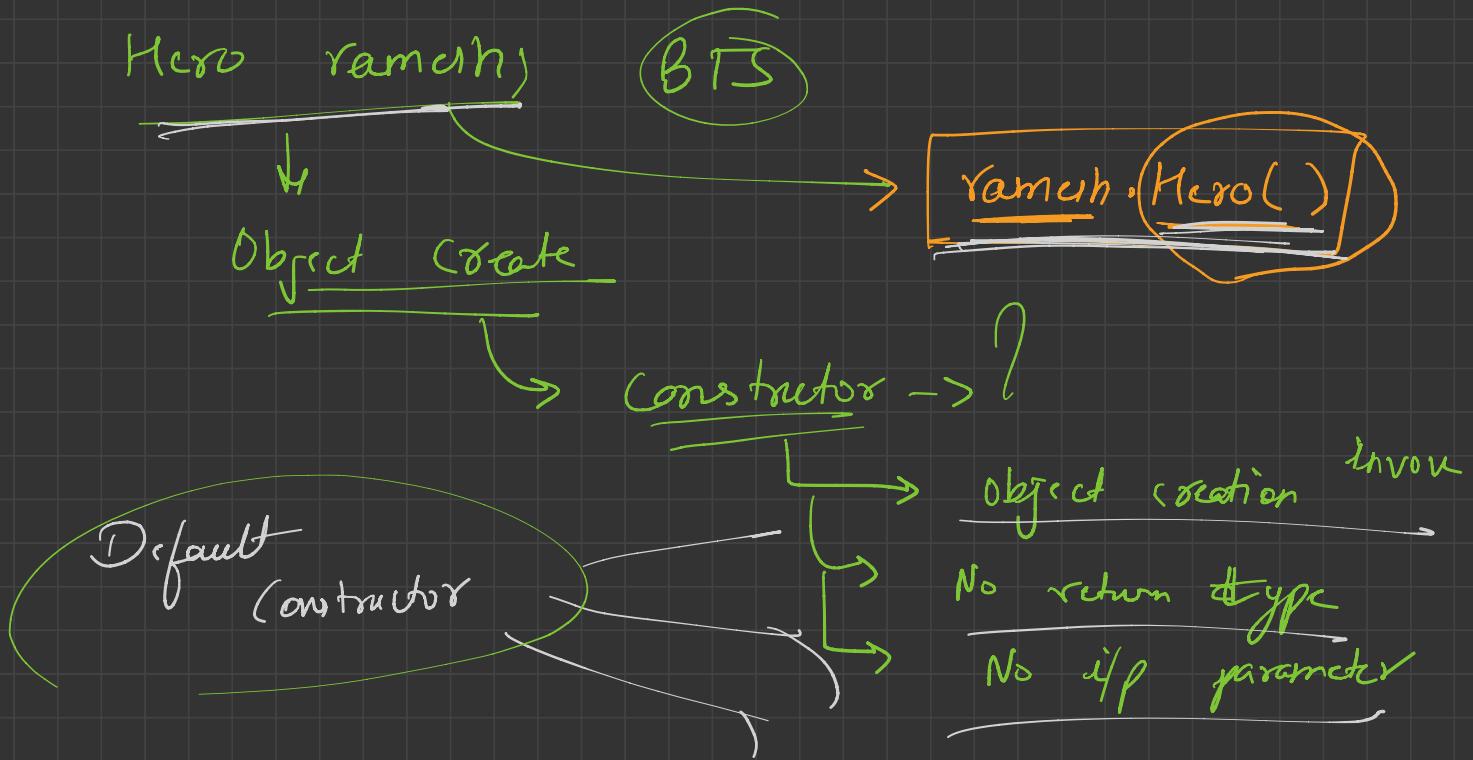
b: getHealth()

↓
address

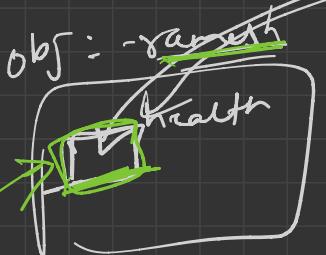
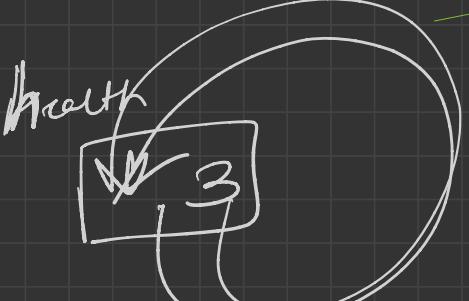
(*b) · getHealth()

or

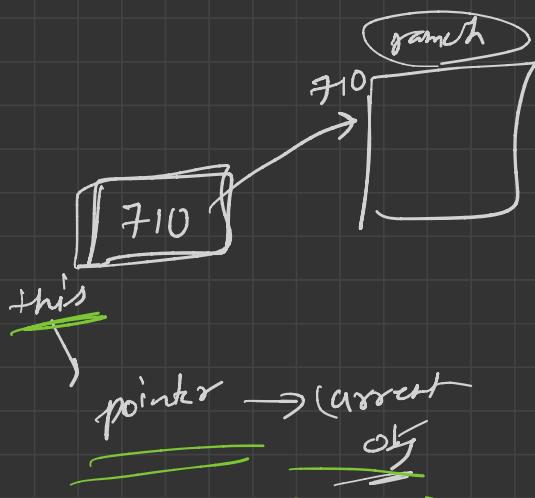
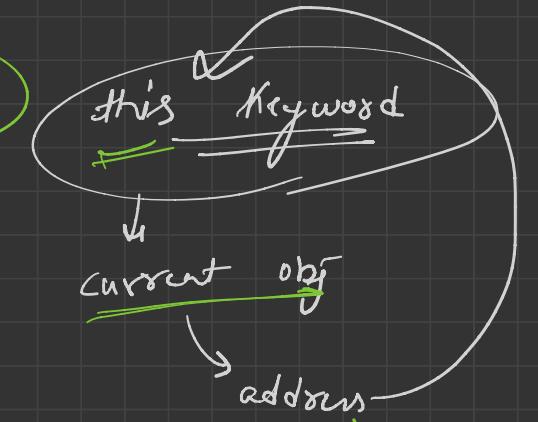
b → getHealth()

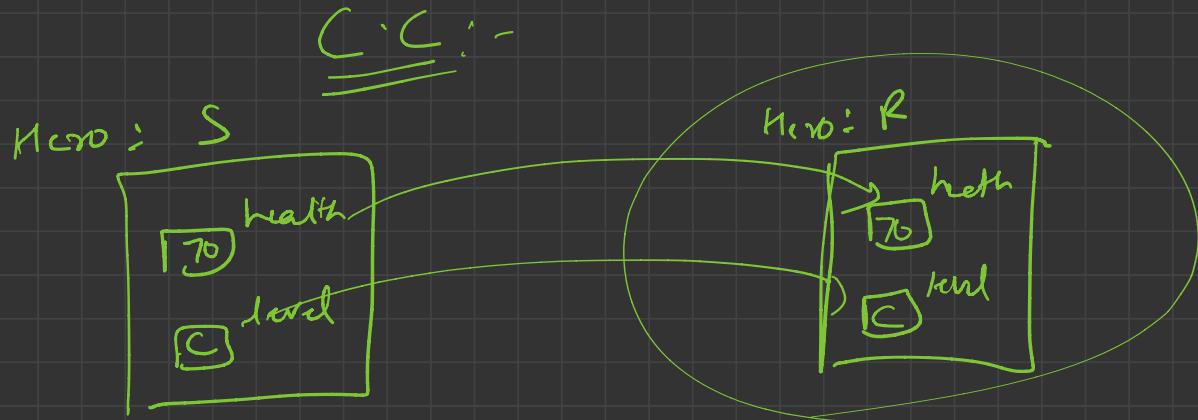
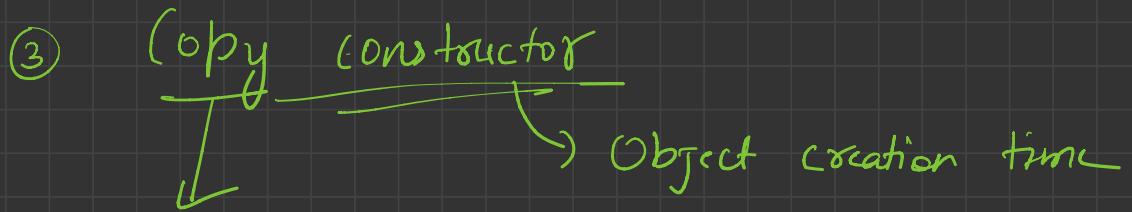


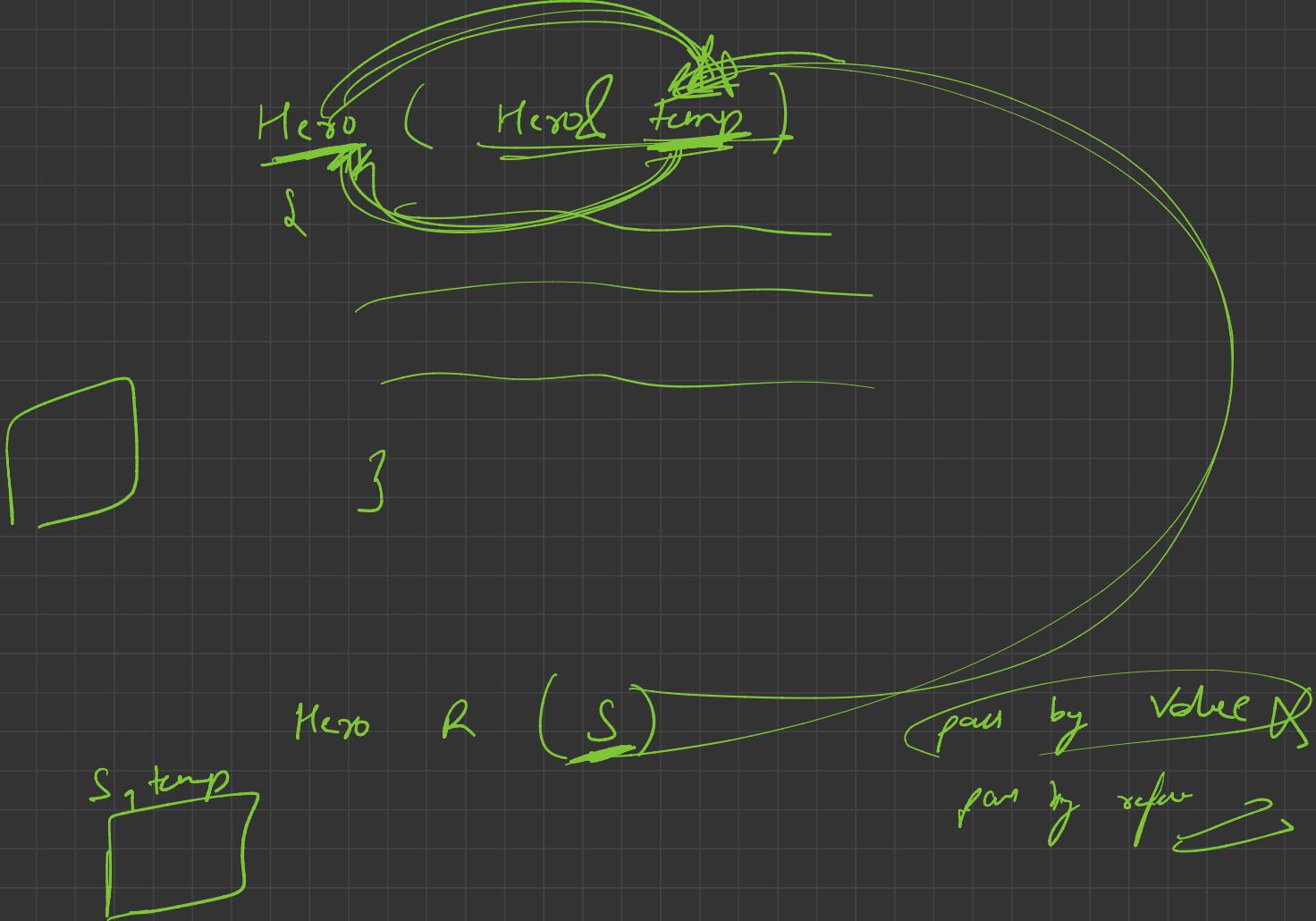
→ Parameterised Constructor

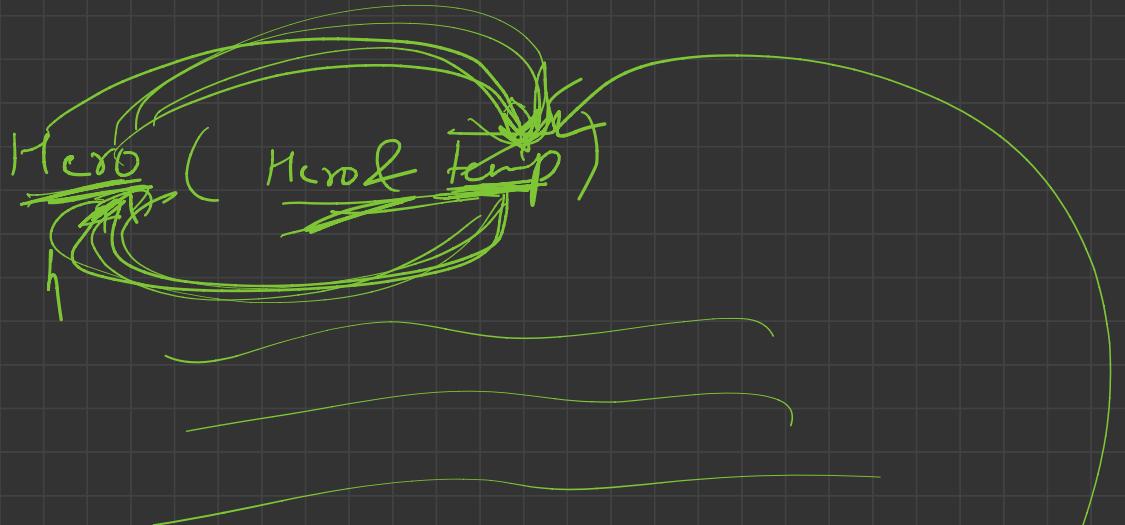


→ this → health = health









3
Hero R (s)

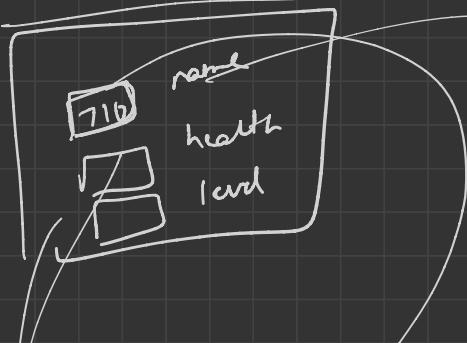
pass by value
def

→ Shallow & Deep copy

default
copy constructor

⇒ Shallow copy

new L - name[0] = 'G'



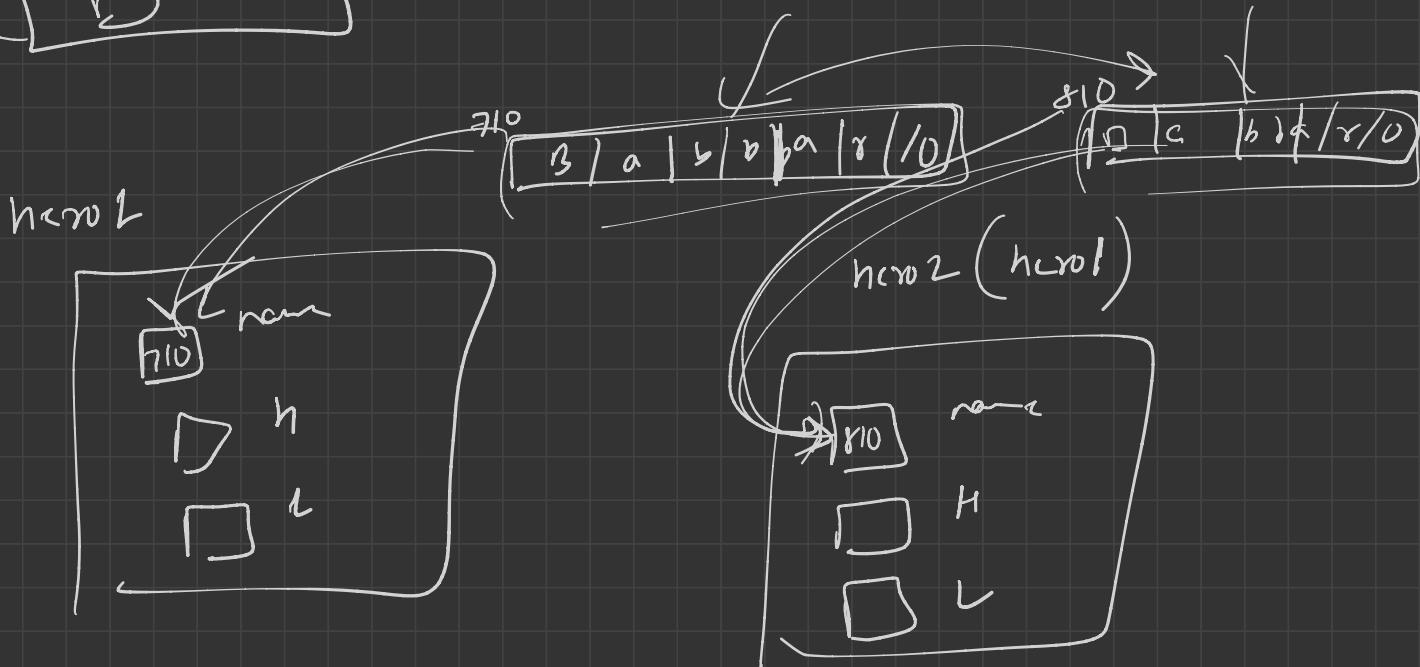
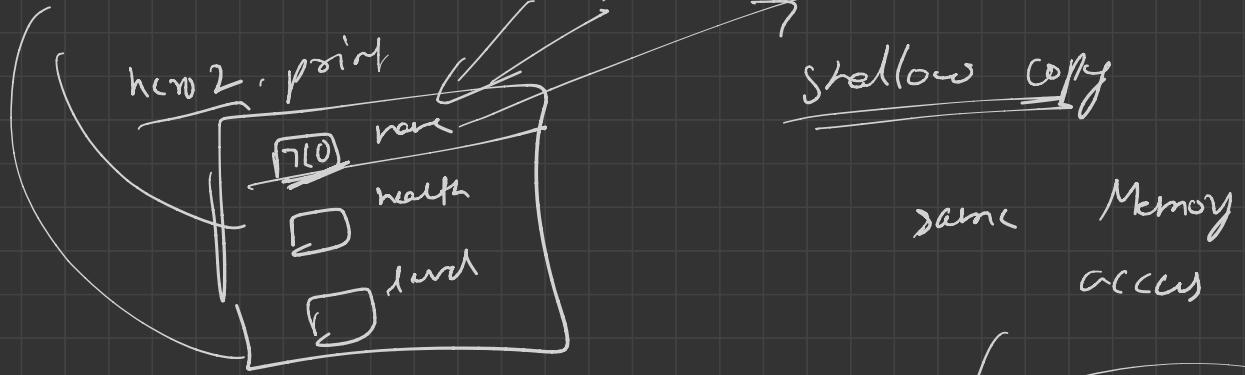
name

710

X | a | b | b | a | r | 10

G

Da bear/0

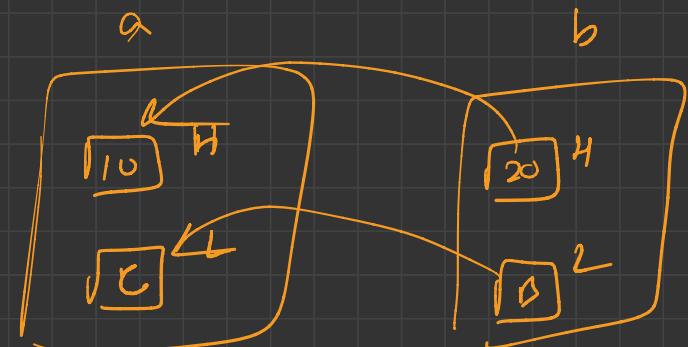


(4) Copy Assignment Operator =

Hero a (10, 'C');

Hero b (20, 'B');

$a = b;$



$a.\text{health} = b.\text{health}$

$a.\text{level} = b.\text{level}$

$a.\text{name} = b.\text{name}$



Destructor :- memory deallocate

name → class name
No return type
No i/p param

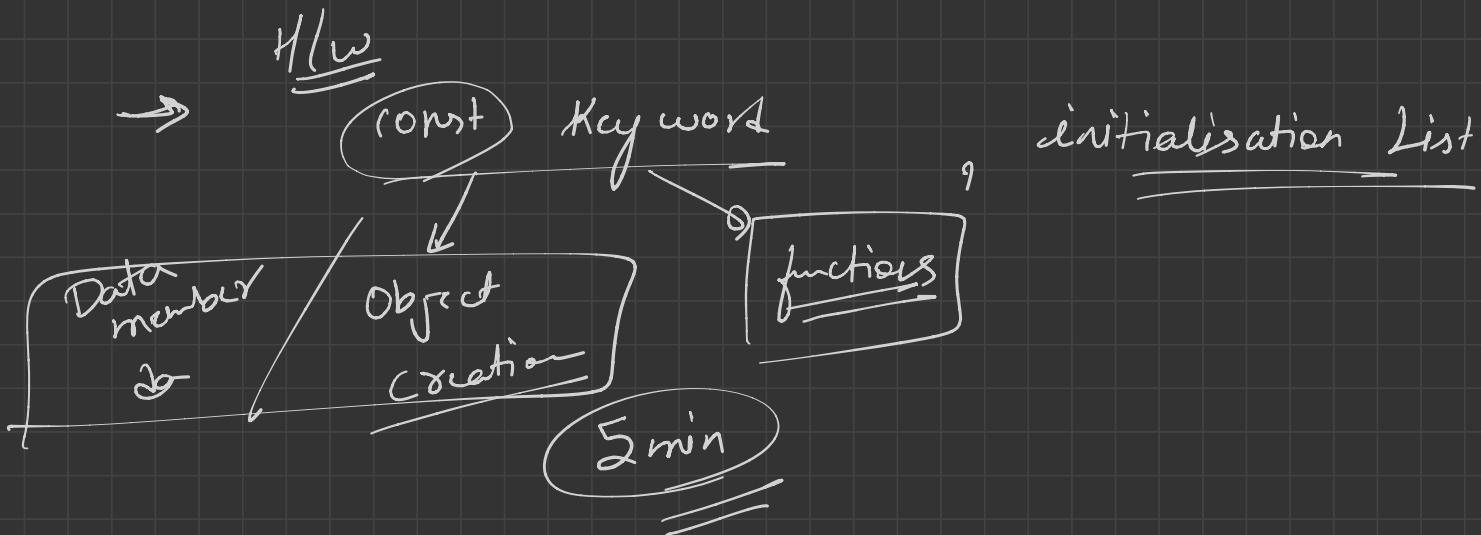
→ constructor

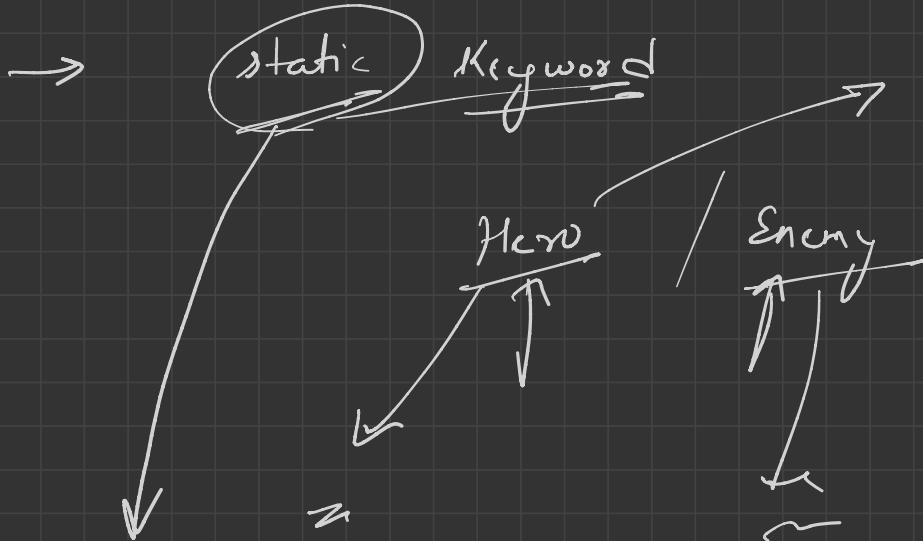
destructor

① obj

→ Static Allocation → Destructor Automatically

→ Dynamic Allocation → ~ ~ Manually

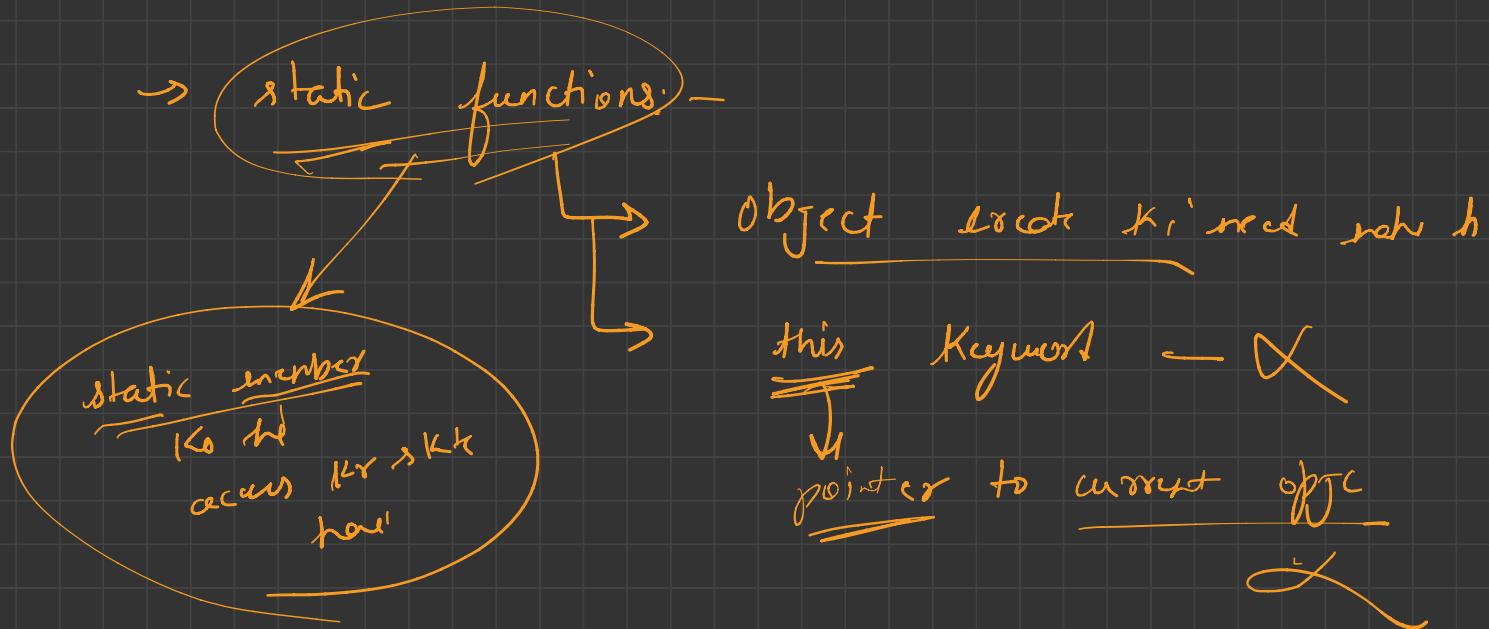




Data member → Object based K
 belongs to class
 need obj
 not.

→ initialise -
datatype ClassName :: fieldName = Value;

Scope Resolution operator



→ Class

→ Object → Data Member

→ Behavior / function

padding / Garbage

→ Access Modifier → public

→ private

→ Protected

align

→ Static / Dynamic Allocation → Crane

→ Constructors

Default

Simple

Parameterized

Copy constructor

→ Copy Assignment Operator

→ Destructor

```
graph LR; Destructor --> static; static --> Dynamic
```

→ Deep / Shallow copy

→ H/w
Count / Suffix / Initialisation List

→ static Data member / Function