

STACK  
and  
Queues

→ usage  
question  
implementation

↳ Normal  
↳ Dynamic

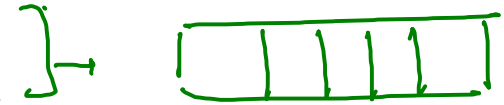
Queues  
usage  
questions  
implementation

{ Normal  
Dynamic

push( )  
pop( )  
peek( )  
size  
is Empty

Array

ArrayList



✓ get →  $O(1)$   
✓ get →  $O(1)$   
✓ remove →  $O(n)$   
✓ add At →  $O(n)$   
↳ last →  $O(1)$

get → peek( )

set } → peek can be changed

pop ~~remove~~ } → peek remove

push ~~add~~ } → addition or peek

## OOPS:

- ✓ classes and objects.
- ✓ data member + member function
- ✓ constructor.
- ✓ this operation.
- ✓ Access modifier
- ✓ Static / Non. static
- String args.

function) having  
no return

type] → Automatically →

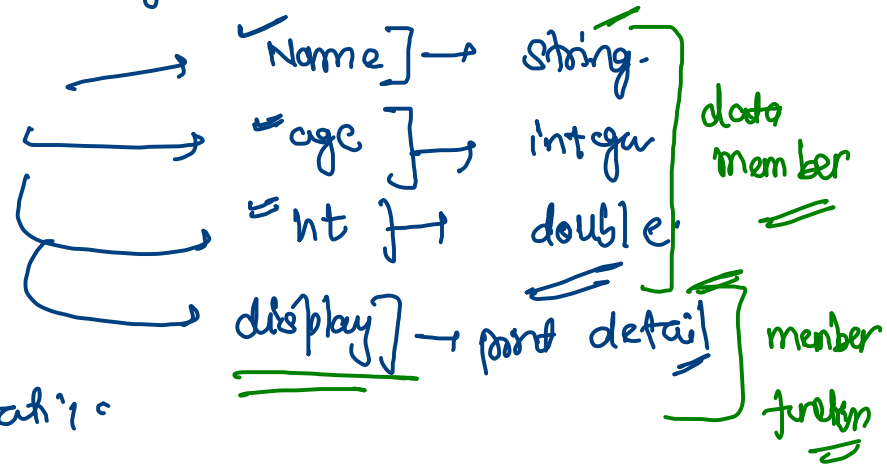
constructor

- ✗ → JVM → default call
- ✓ → default parameterised

user defined data type.

Human

public static.



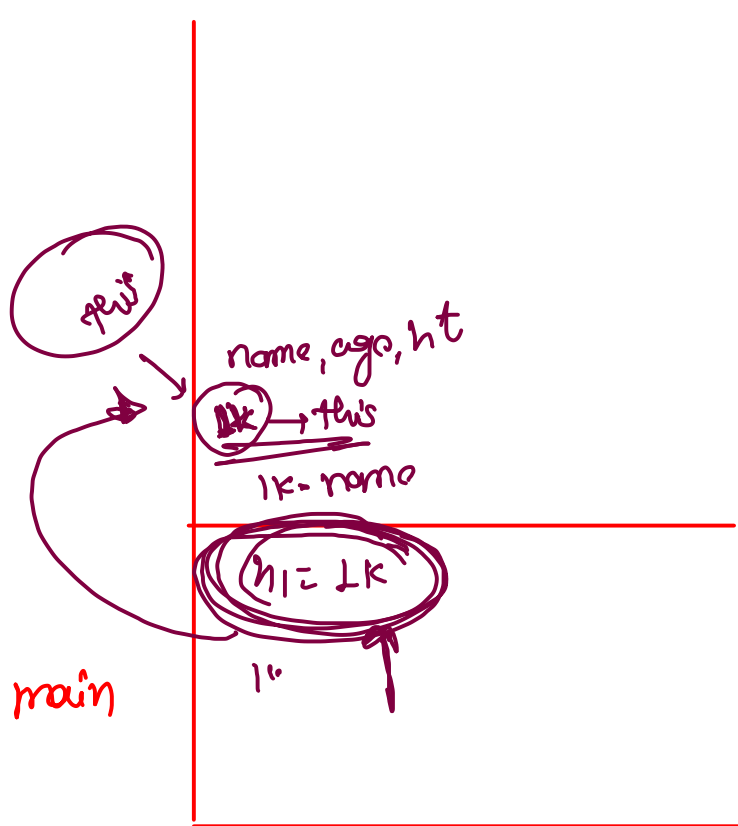
Initialise] →

object]

default constructor  
parameterised constructor  
copy constructor.

destructor. in C++

this - self referenced pointer.

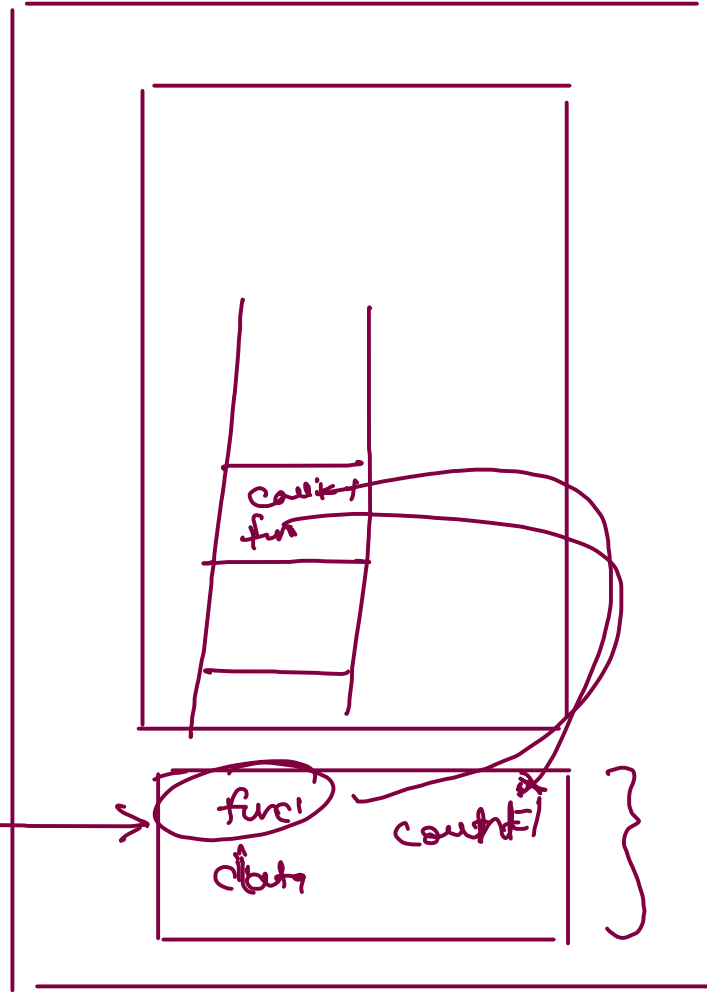


access modifier  
this  
copy construction  
→ Pass by reference

```
class Human {  
    private String name = "";  
    private int age = 0;  
    private double ht = 0;  
  
    public Human() {  
        // default constructor  
        System.out.println("Inside constructor");  
    }  
  
    public Human(String name, int age, double ht) {  
        // parameterised constructor  
        this.name = name;  
        this.age = age;  
        this.ht = ht;  
        this();  
    }  
}
```

func

static  
segment



✓ Static memory  
allocation

constructor - limit of  
stack



$size > limit \rightarrow$  stack overflow.

$size < 0 \rightarrow$  stack underflow.

✓ push  $\rightarrow$  add last  
✓ pop  $\leftarrow$  remove last  
✓ peek  $\rightarrow$  get last  
✓ size  $\rightarrow$  overall size  
display  $\rightarrow$  stack printing.

