

func f(...) {  
}

func f(...) int {  
}

func f(...) (int, string, float64) {  
}

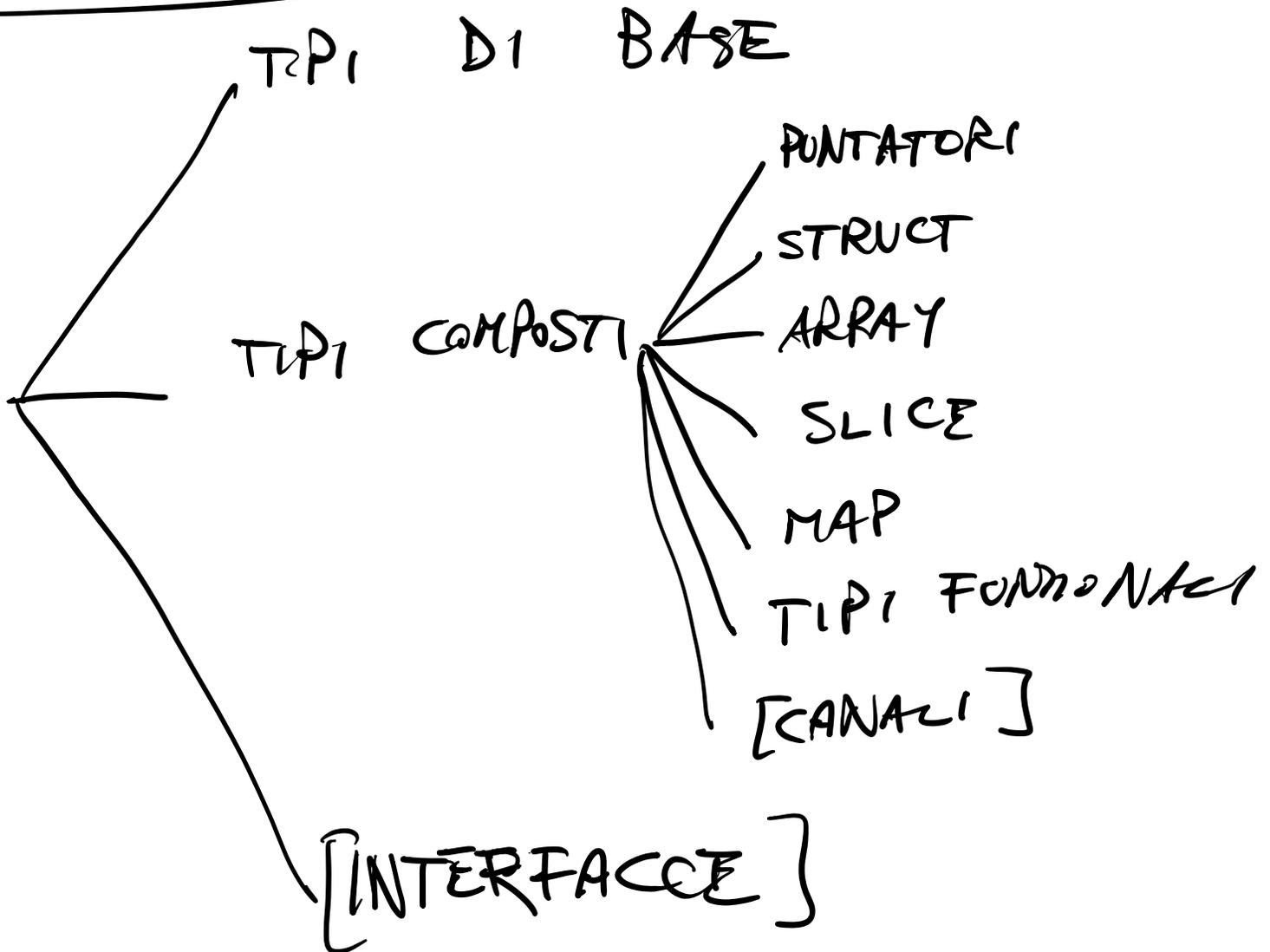
func f(x float64) (int, float64) {  
var res1 int  
var res2 float64  
res1 = int(x)  
res2 = x - float64(res1)  
return res1, res2  
}

func f(x float64) (pi int, pf float64) {  
pi = int(x)  
pf = x - float64(pi)  
return  
}

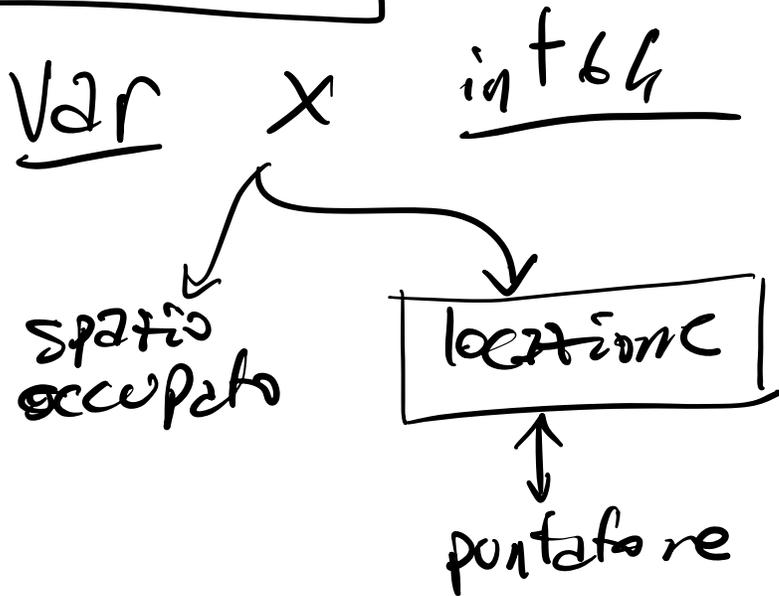
$x, y := f(3.5)$

# PUNTATORI

## TIP1 IN GO



# PUNTORI

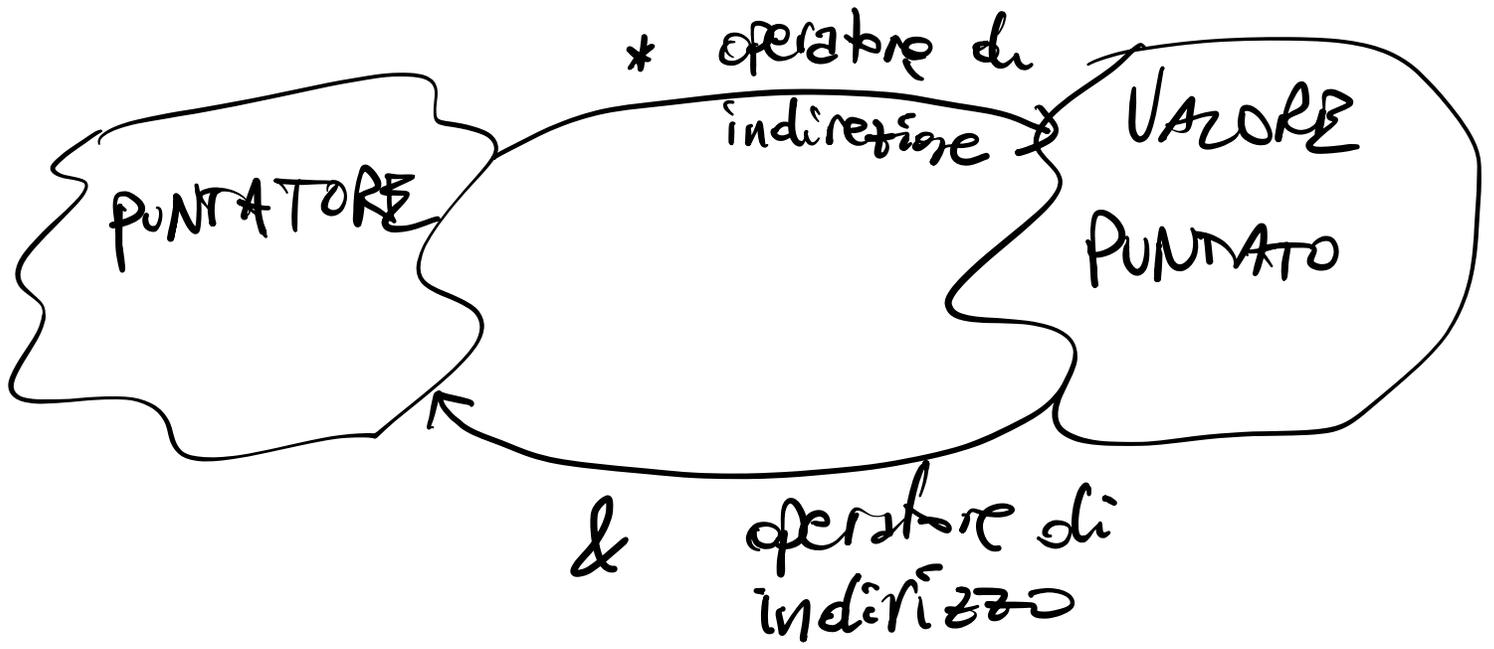


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PUNTORE AC TIPO T

\* T

- Var x uint64
- Var p \*uint64
- Var q \*string
- Var z \*\*uint64



```

var x int
var p *int
p = &x
fmt.Println(p)
fmt.Println(*p)
*p = 15
fmt.Println(x)

```

← nil

x [ 15 ]

p [ ]

\*p sono alias

var x int  
var p \*int  
var q \*\*int

x = 15

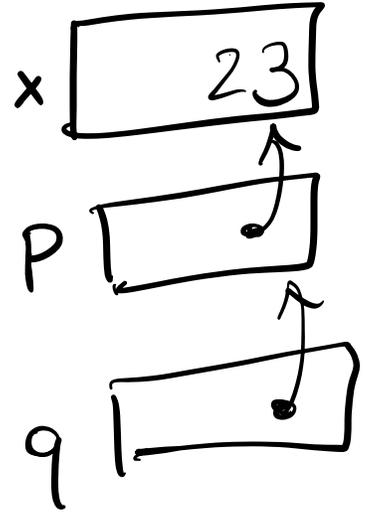
p = &x

q = &p

\*p = \*p + 7

\*\*q ++

fun t. postIn(x)



# ALLOCAZIONE DINAMICA

new (T)

↓  
crea una zona  
libera al tipo T  
e ne restituisce  
la locazione

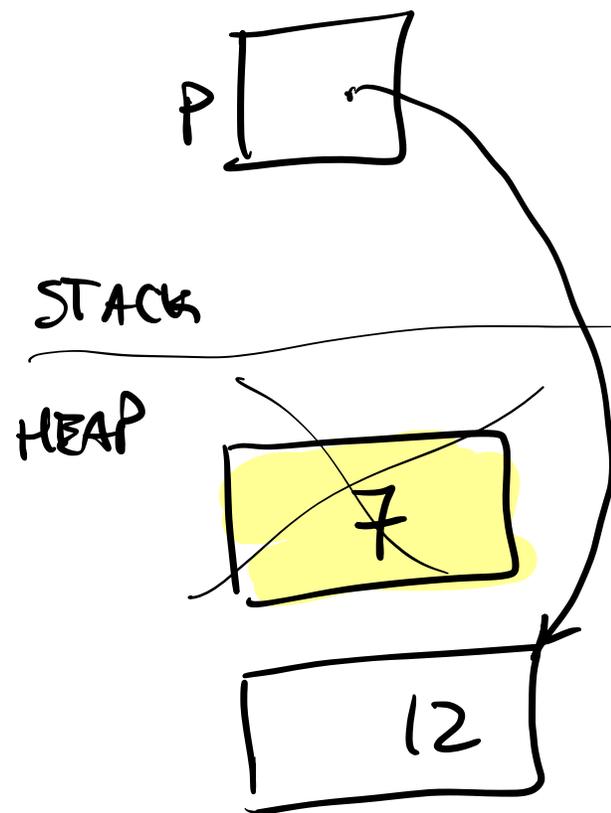
Var p \*int  
p = new (int)

\*p = 7

funct. Println (\*p)

p = new (int)

\*p = 12



GARBAGE  
COLLECTION

```

var x int
var p *int
var q **int

```

x = 7

p = &x

q = &p

p = new (int)

\*p = 50

q = new (\*int)

\*q = &x

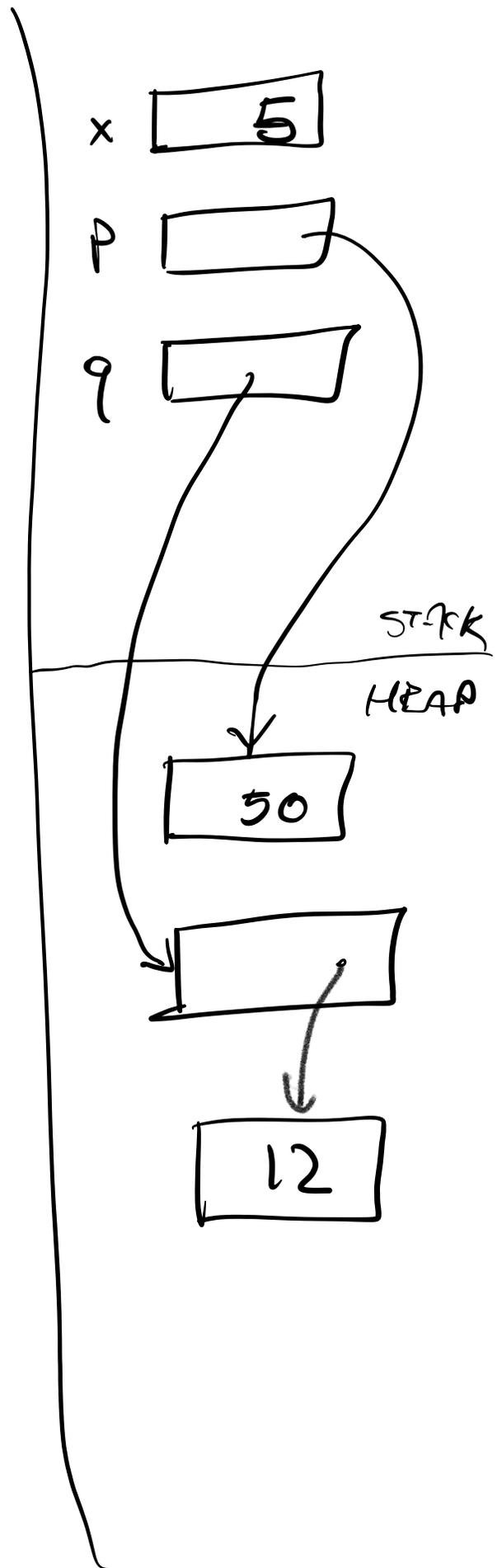
\*\*q = 5

\*q = new (int)

\*\*q = 12

fmt.Println(x, \*p, \*\*q)

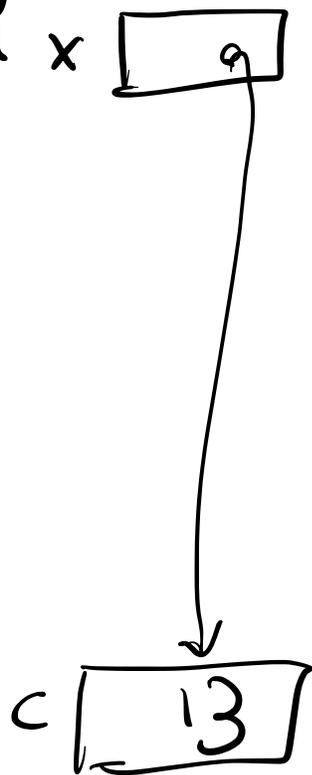
5 50 12



```
func    inc 6 (x int)  
        x += 6  
}
```

No

```
func    inc 6 (x *int) { x  
        *x += 6  
}  
  
func    main () {  
    var  c int  
    c = 7  
    inc 6 (&c)  
    fut. Println(c)  
}
```



# DICHIARAZIONE TIPO

D1

type ID TIPO

```
type  punt  *int  
var  x, y  punt
```

---

package main

```
...  
type  punt  *int  
func f(x punt) (int, punt) {  
...  
}
```

func g() punt

...

}

# TIP VS. ALIAS

type punt \*\*int

Ⓐ

type punt = \*\*int

Ⓑ

NON SINONIMI

SINONIMI

var x ~~\*\*int~~  
var y punt

x = \*\*int(y)  
y = punt(x)

x = y  
y = x

# STRUCT

```
type data struct {  
    o int  
    m int  
    a int  
}
```

```
type persona struct {  
    nome, cognome string  
    c_fisc string  
    data Di Nascita date  
}  
var p persona
```

P

nome	cognome	c_fisc	data Di Nascita		
Polo	Boldi	BLD...	g	m	a
			29	6	1968

↑  
campo

```
struct {  
    campi  
    ...  
}
```

SINTASSI DELLA  
DICHIARAZIONE  
DI  
VARIABILI

DOT-NOTATION → accesso ai  
campi di  
una struttura

```
p.nome = "Paola"  
p.cognome = "Boldi"  
p.cfisc = "BLD..."  
p.dataDiNascita.g = 29  
p.dataDiNascita.m = 11  
p.dataDiNascita.a = 1968
```