
(programmare con tipi astratti: Higher Order)

```
let floatToString f = "1.1";;  
let pigreco=3.14;;
```

```
module type RECTANGLE =  
  sig type rectangle  
    val rectC: float -> float -> rectangle  
    val area : rectangle -> float  
    val perimeter : rectangle -> float  
    val toString : rectangle -> string  
end;;
```

```
module Rectangle =  
  (struct  
    type rectangle = {base:float; height:float}  
    let rectC x y = {base=x; height= y}  
    let area r = r.base*.r.height  
    let perimeter r= r.base*.2. +.r.height*.2.  
    let toString r= "rettangolo di base " ^ (floatToString r.base) ^ " e altezza "^(floatToStrin  
end: RECTANGLE);;
```

```
module type CIRCLE=  
  sig type circle  
    val circlec: float -> circle  
    val area : circle -> float  
    val perimeter : circle -> float  
    val toString : circle -> string  
end;;
```

```
module Circle =  
  (struct  
    type circle = {radius:float}  
    let circlec x = {radius=x}  
    let area r = r.radius*.r.radius *.pigreco  
    let perimeter r= r.radius*.2.*.pigreco  
    let toString r= "cerchio di raggio " ^ (floatToString r.radius)  
end: CIRCLE);;
```

```
let l=[Circle.circlec 3.4; Circle.circlec 1.2];;
```

```
let rec map f xs= match xs with  
  [] -> []  
|x::ys -> (f x)::(map f ys);;
```

```
let ax =map Circle.area l;;  
let px =map Circle.perimeter l;;  
ax
```