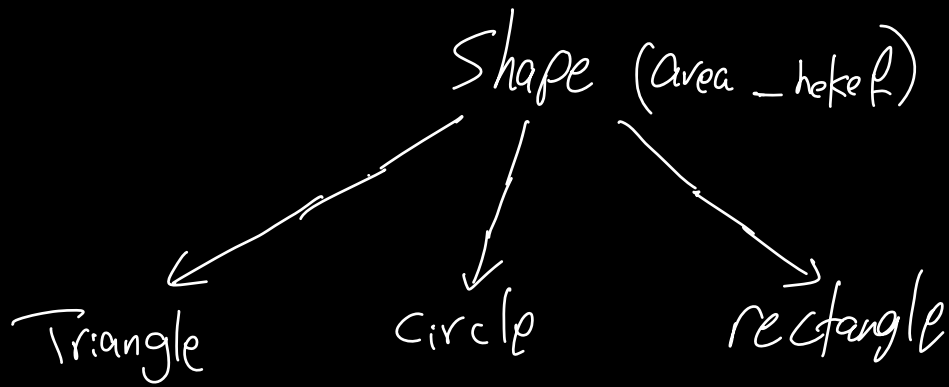


poodle $\xrightarrow{?}$ dog ✓

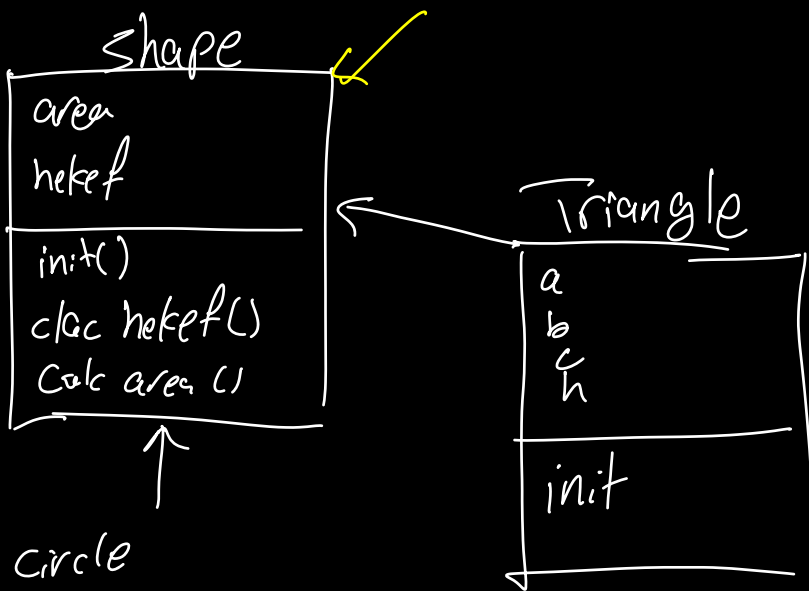
pitbull $\xrightarrow{?}$ dog ✓

dog $\xrightarrow{?}$ animal ✓

poodle $\xrightarrow{?}$ animal



Data Data
func + fun



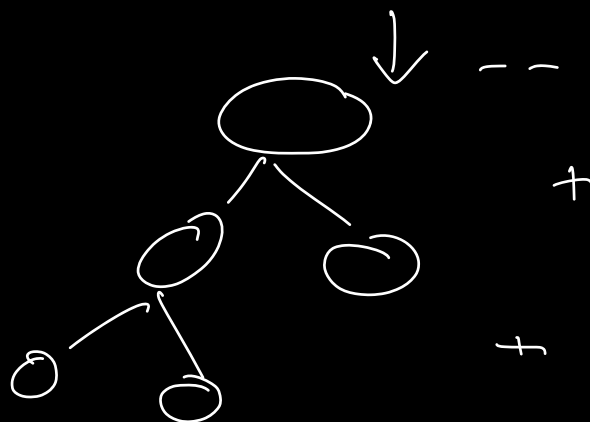
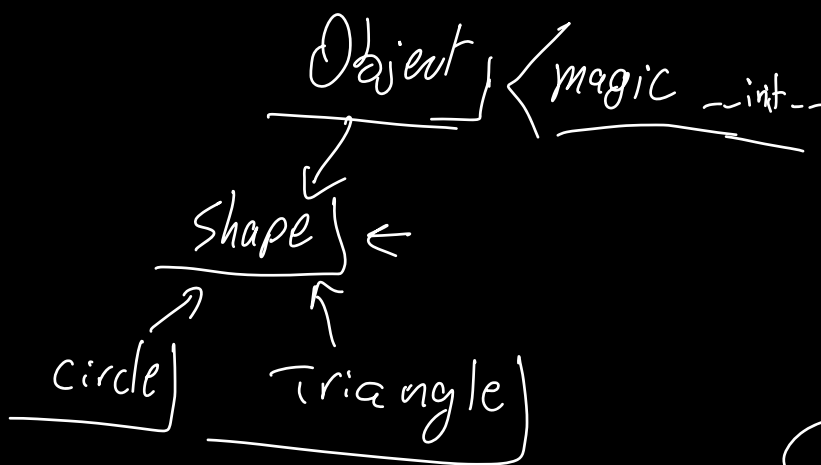
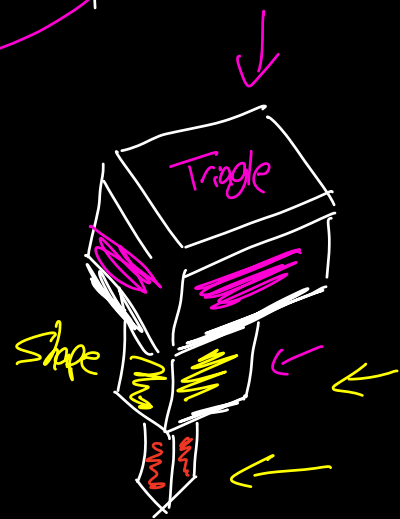
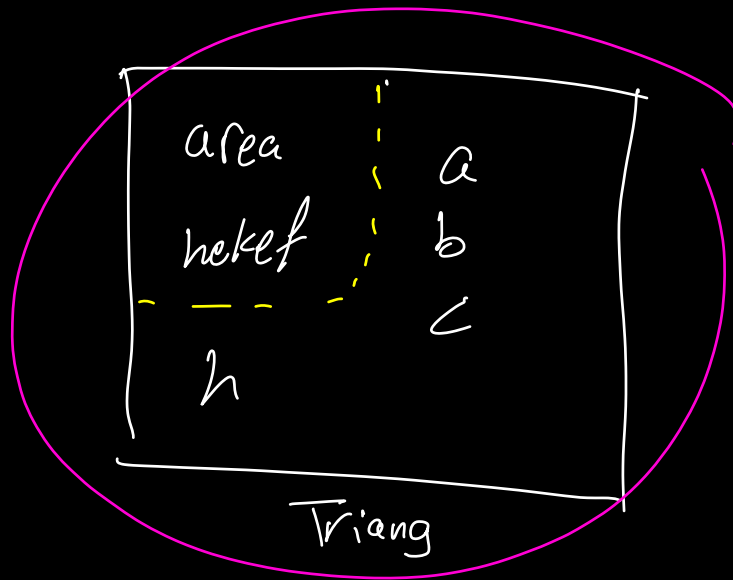
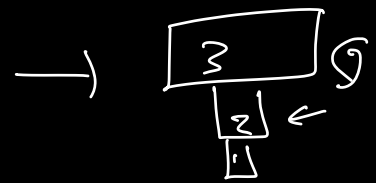
Data T = a, b, c, h
area
height

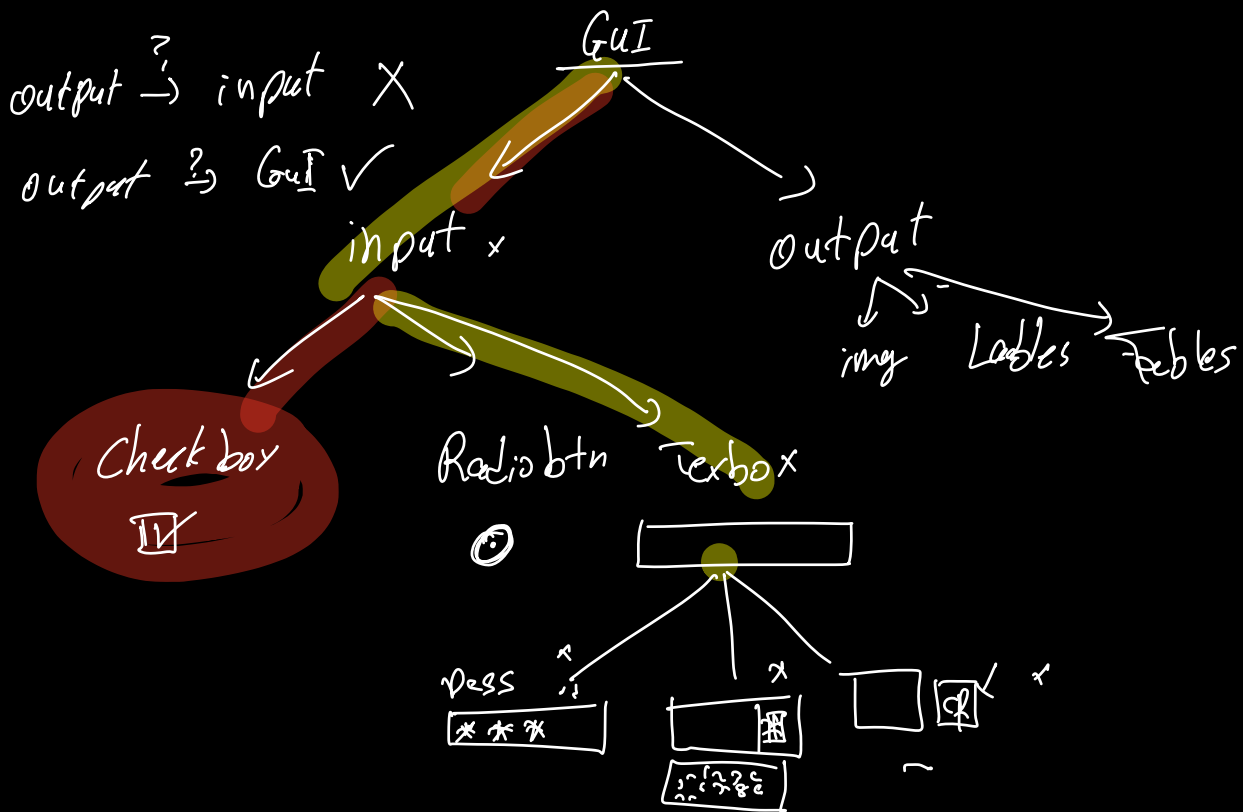
Data circle R
area
height

(Shapes [T, C, T, C])

Diagram showing an array of shapes: (Shapes [T, C, T, C]) with arrows pointing down to T, C, T, C.

Triangle → shap





Shape

```

__init__(self, h, k, area)
self.h = h
self.k = k
self.area = area
  
```

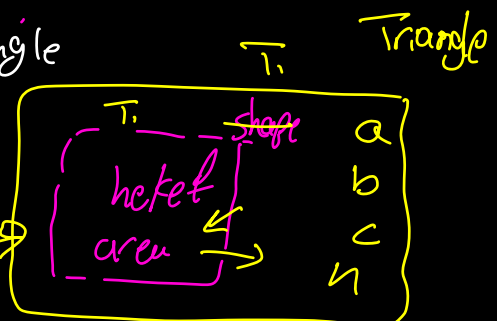
Triangle(Shape):

```

__init__(self, h, k, area, a, b, c, h)
self.h = h
self.k = k
self.area = area
self.a = a
self.b = b
self.c = c
self.h = h
  
```

$T_1 = \text{Triangle}(5, 4, 3, 2, 1, 0) \Rightarrow \text{Triangle}$

$T_1.area$
 $T_1.a$



```

class Food:
    def get_cal(self):
        return 0

```

```

p1 = pizza()
sh1 = shwarma()

```

```

class pizza(Food):
    def get_cal(self):
        return 1800

```

```

class shwarma(Food):
    def get_cal(self):
        return 3600

```

```

def print_cal(Foods):
    for food in Foods:
        food.get_cal()
    0-1800
    2-3600

```

poly morphism

food → I I

poly more
many forms
27 13
37 27
many forms