

# **Objektorienterad programmering och modellering för IA**

Snabb sammanfattning & övningar

# Dagens agenda

- Nästa inlämningsuppgift
- Snabb repetition av kursen
- Genom av mailfrågor
- Workshop

# Inlämningsuppgift 2

<http://da361a.ia-mah.se/courses/da361a/assignments/U02.html>

**Vad har vi lärt oss i kursen?**

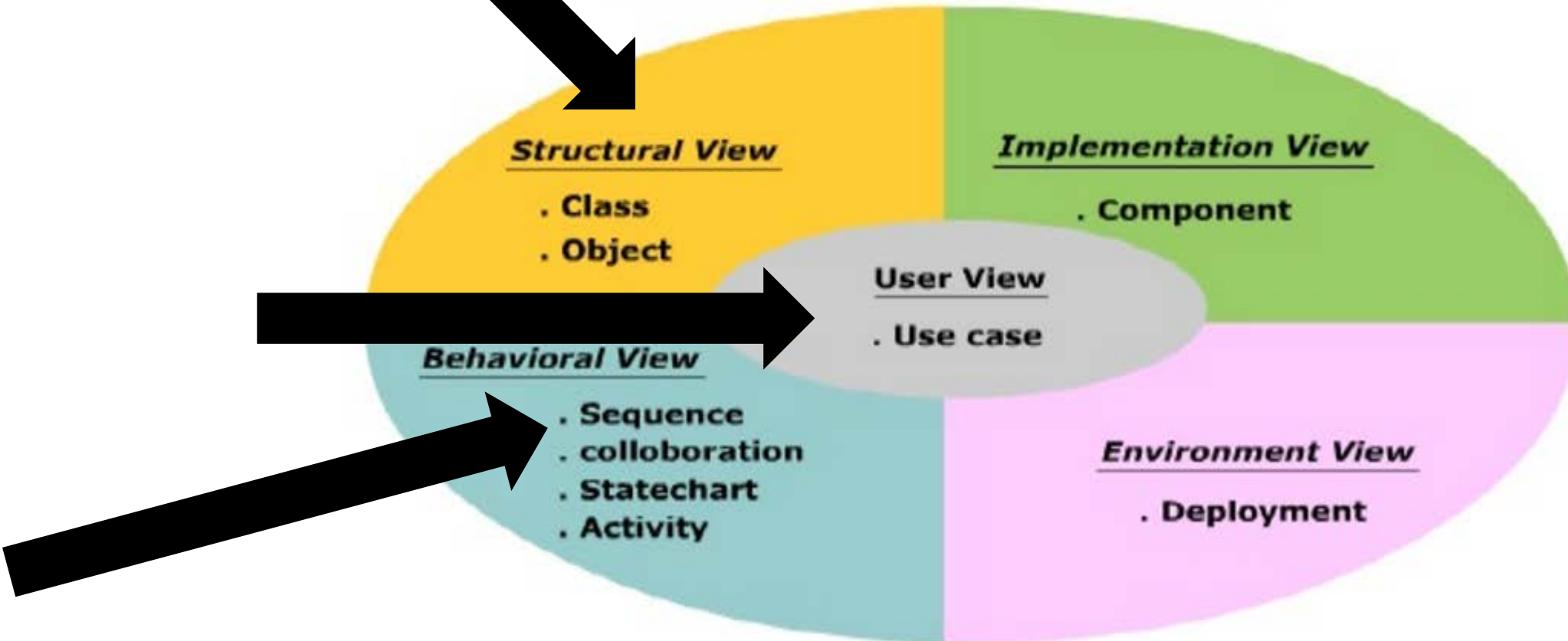
**UML**

# **Vad innebär arkitektur av ett system för:**

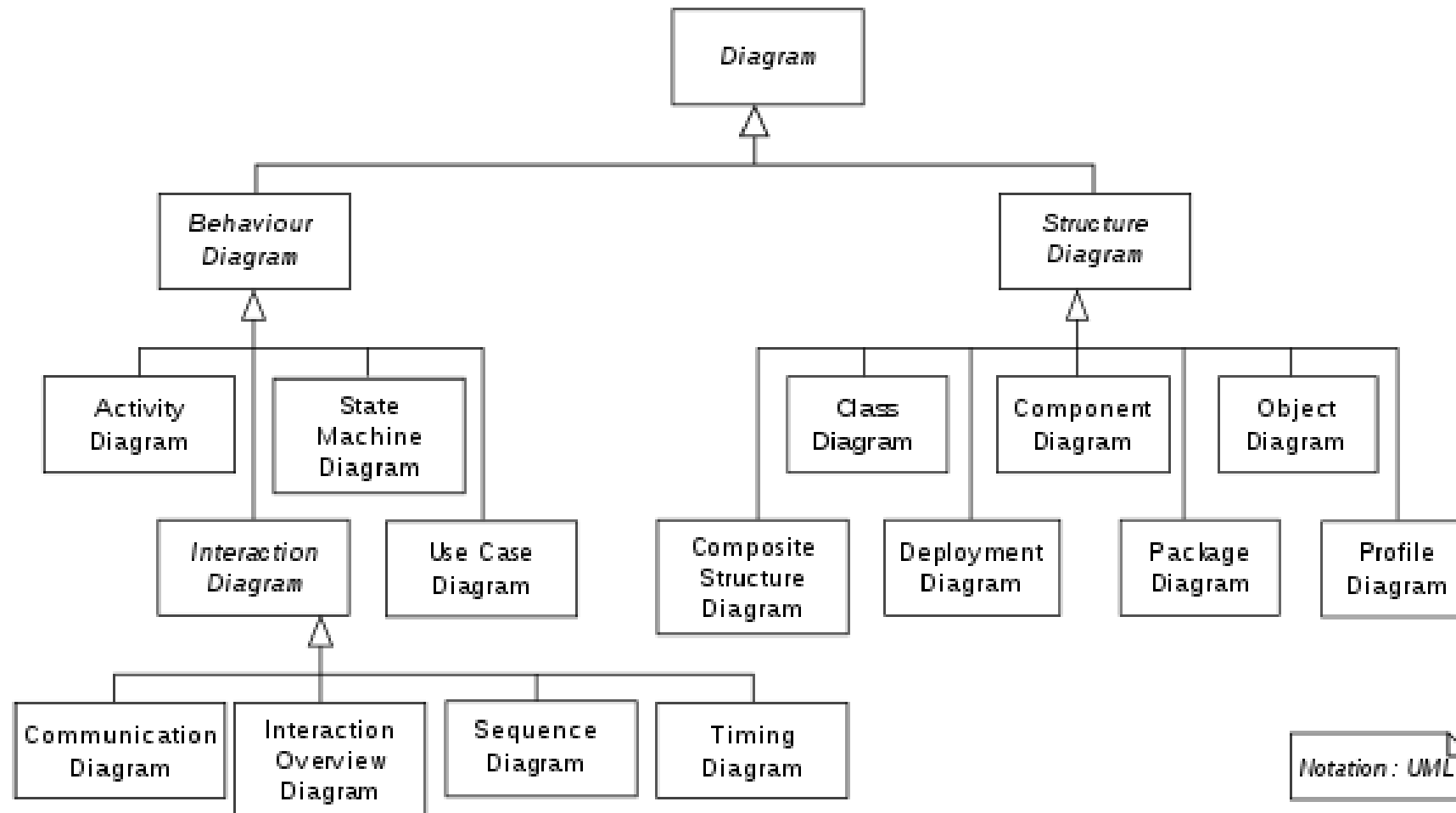
- Slutanvändare
- Projektledare
- Systemingenjör
- Utvecklare
- Testare
- Underhållare av system

# Olika delar i UML

Five Main views of the system in UML

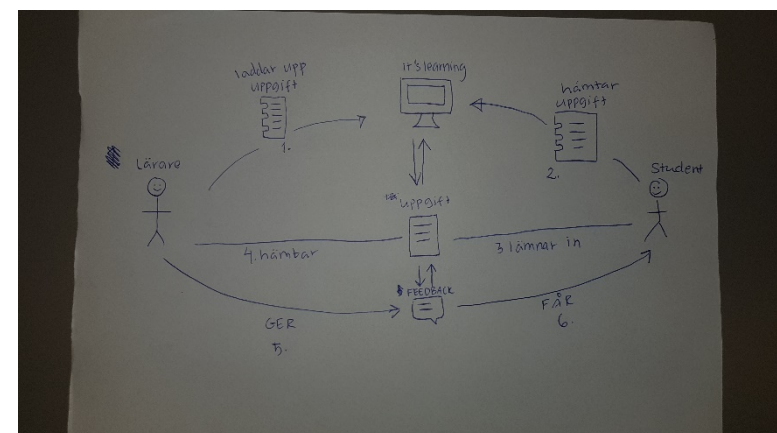
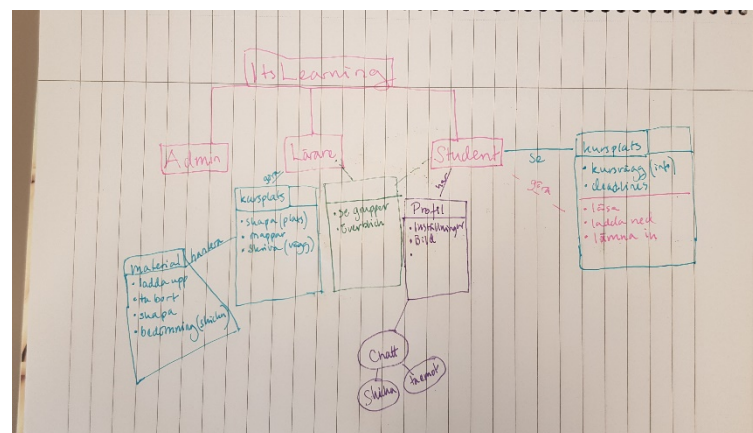
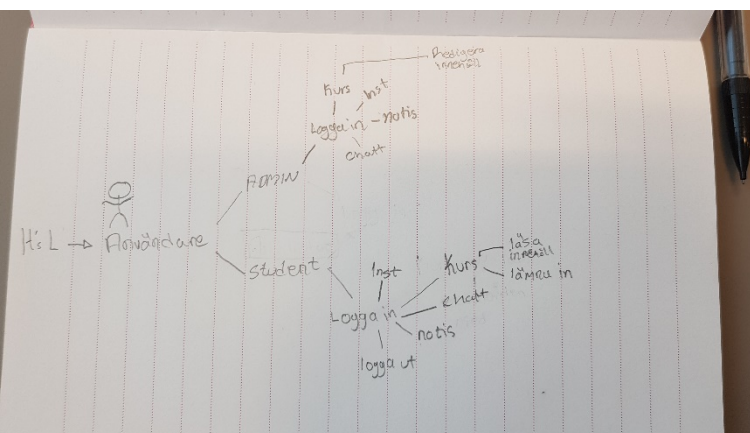
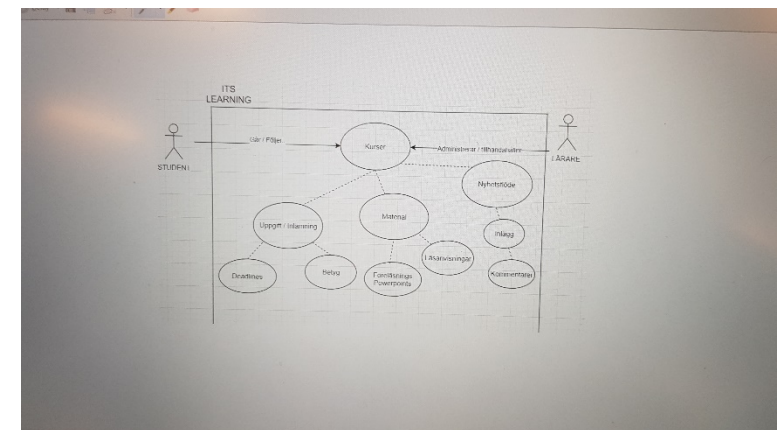
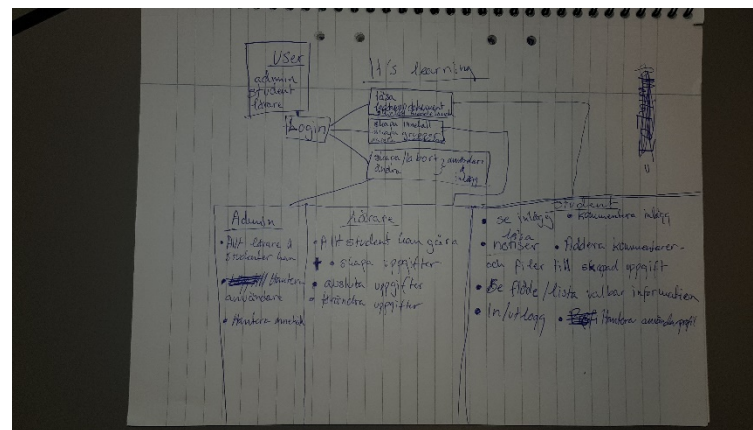
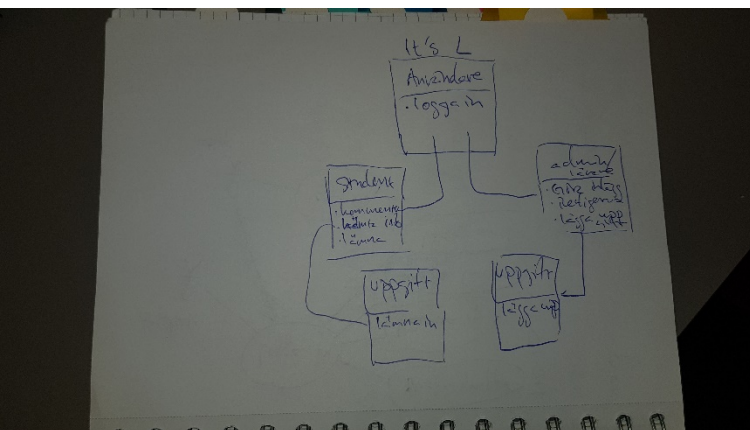


# Olika diagram inom UML

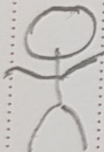




**Hur modellerar man upp ett  
system?**





H's L →  Användare

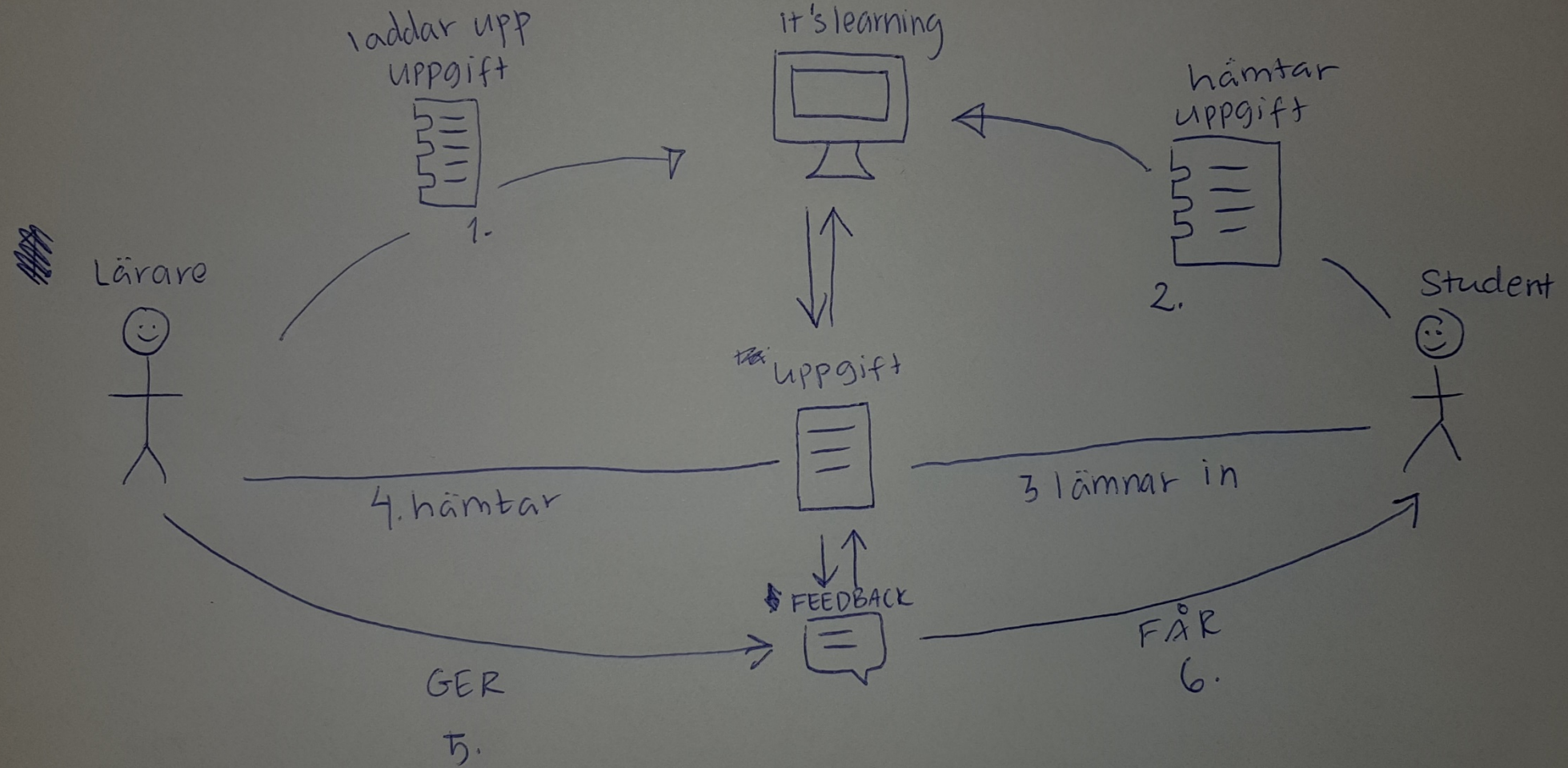
ADMIN

student

Kurs  
|  
logga in - notis  
|  
chatt  
|  
redigera innehåll

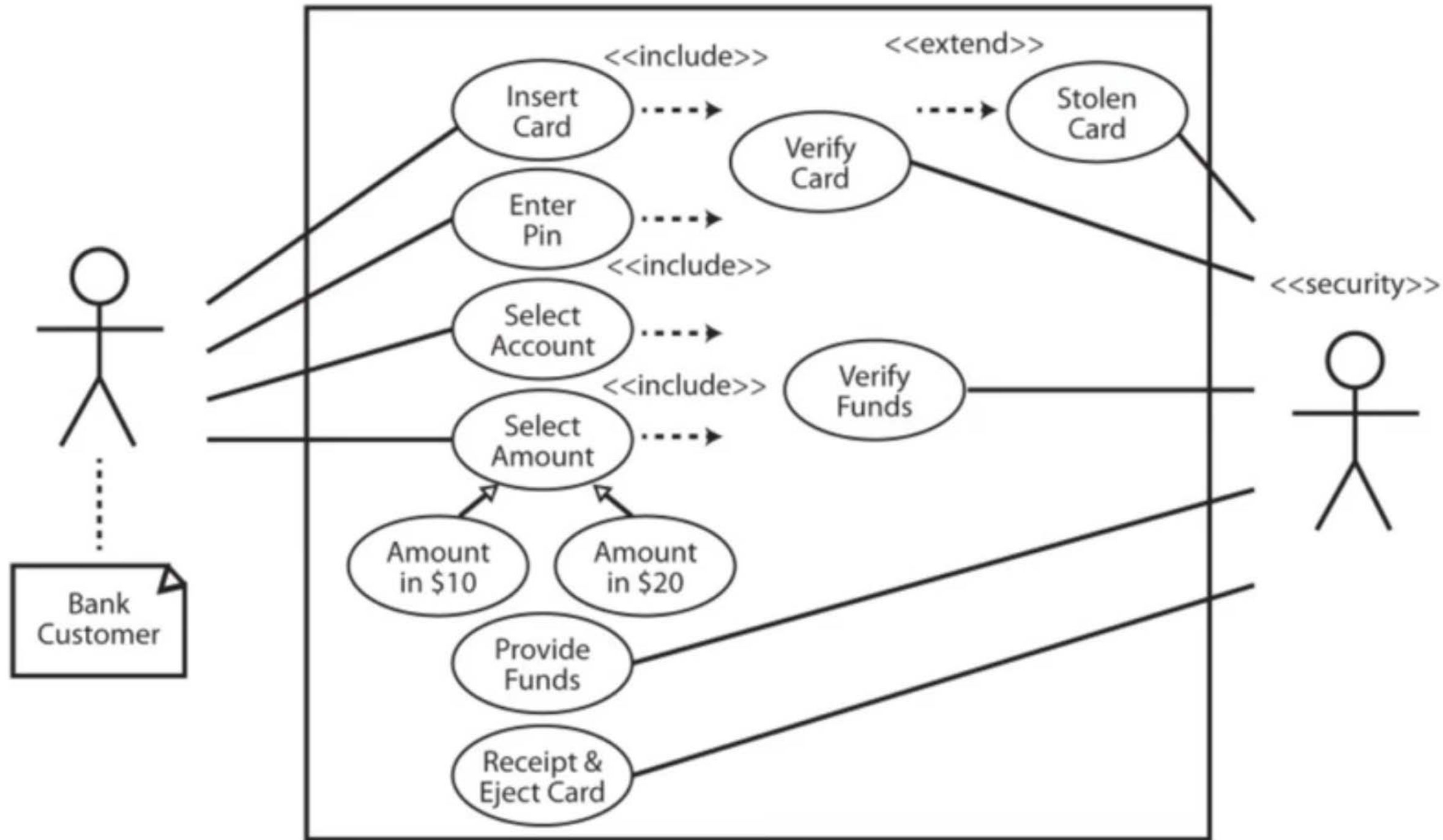
Inst  
|  
Logga in - chatt  
|  
logga ut  
|  
notis  
|  
Kurs  
|  
läsa innehåll  
|  
lämnar in





**Har ni en annan bild av  
system nu?**







## Person

+ Name: string

+ Age: integer

+ Gender: string

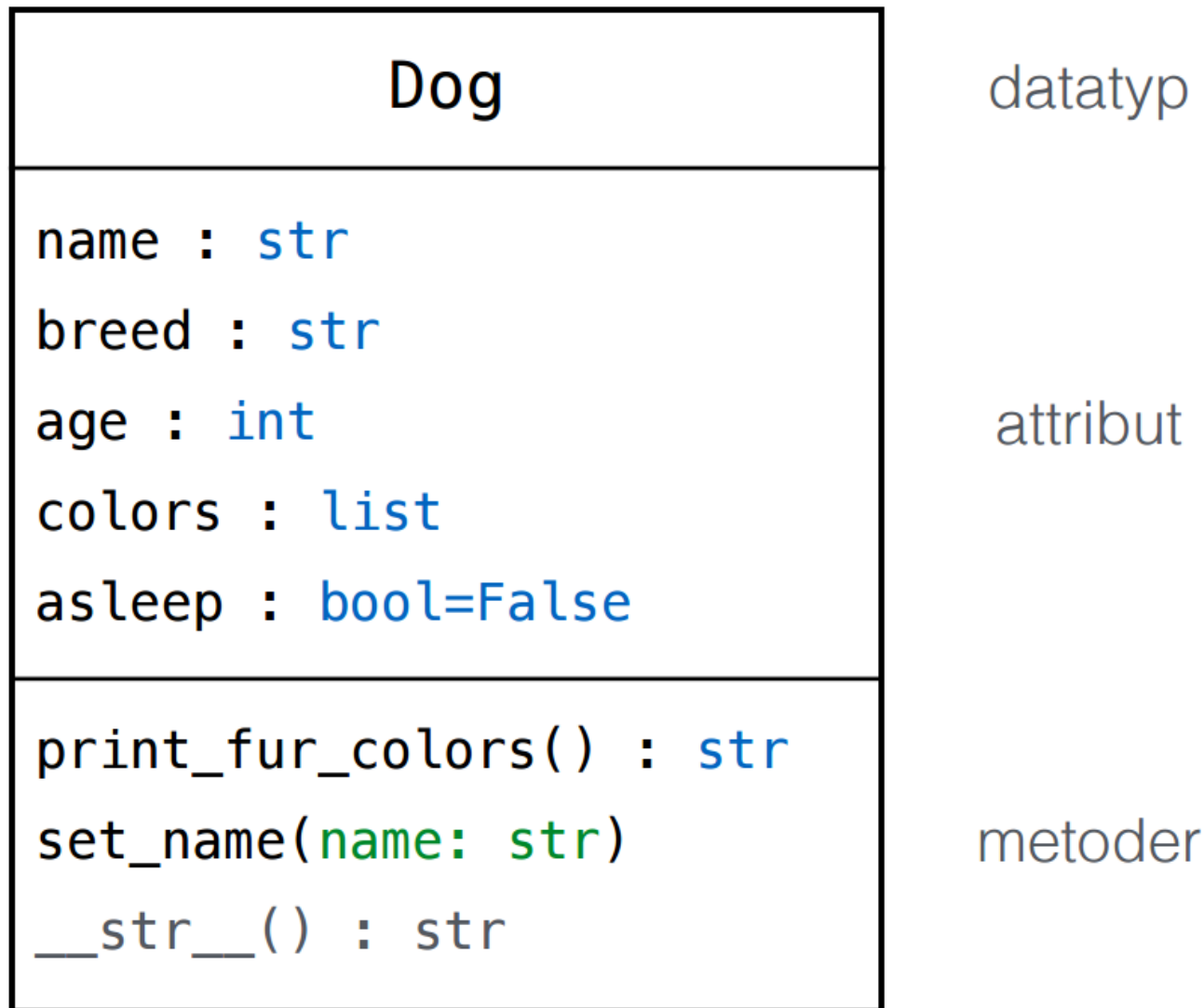
+ go()

+ talk()

+ sleep()

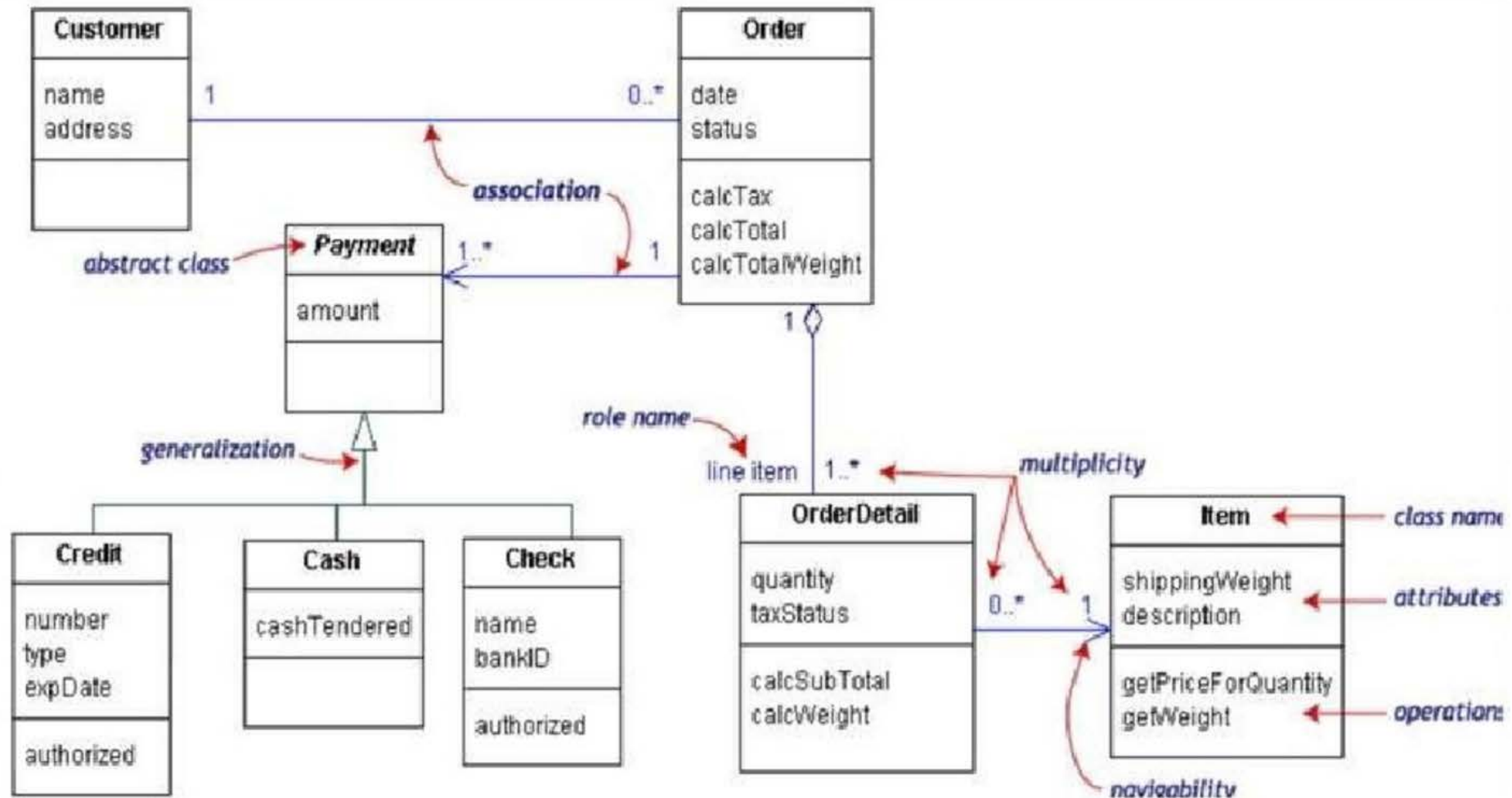


# Klassdiagram



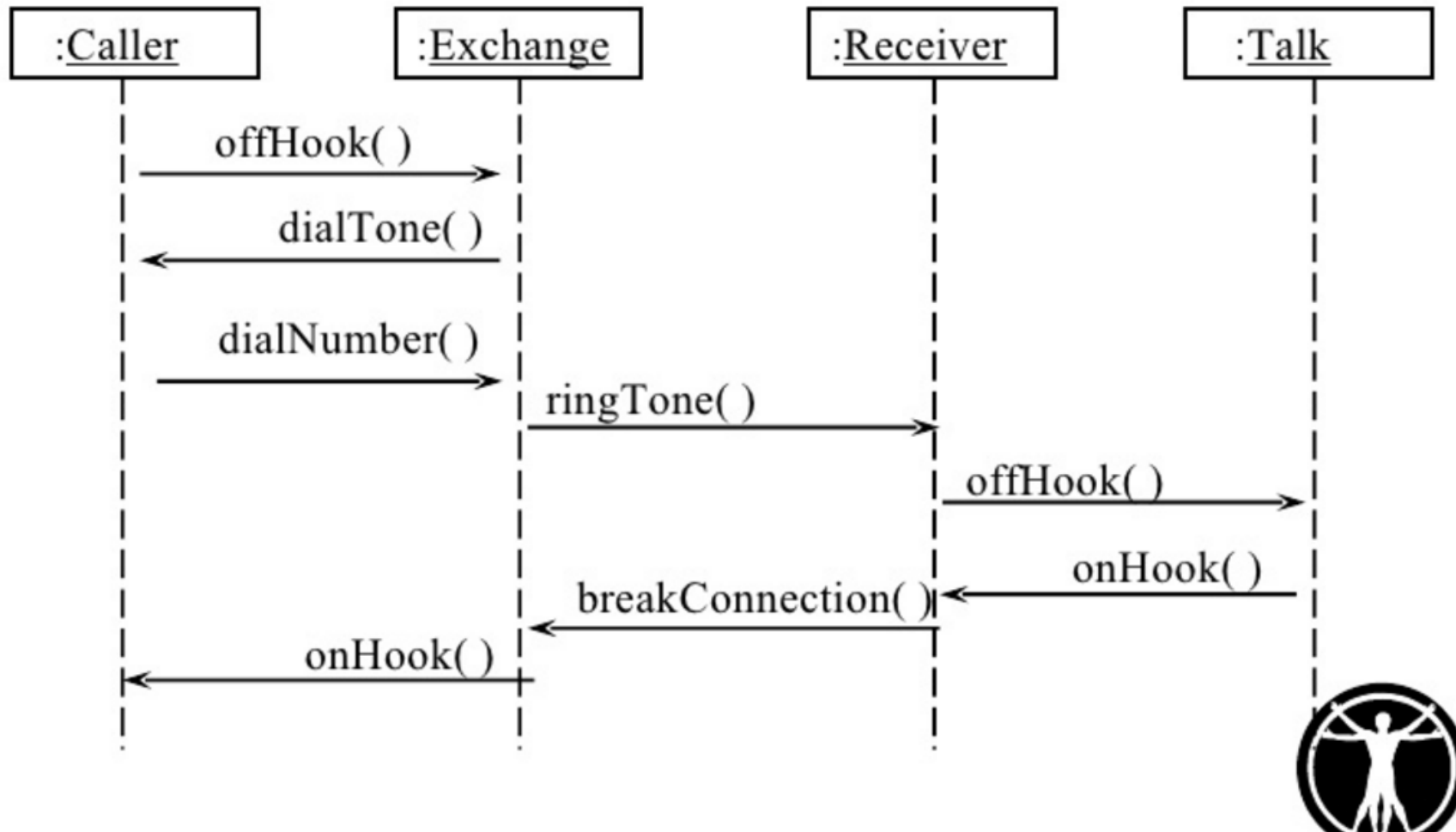
```
1 class Dog(object):
2
3     def __init__(self, name, breed, age, colors):
4         self.name = name
5         self.breed = breed
6         self.age = age
7         self.colors = colors
8
9     def print_fur_colors(self):
10        """
11        Prints out all fur colors of the dog
12        """
13        print "%s has the following fur colors: %s" % (self.name, ", ".join(self.colors))
14
15    def __str__(self):
16        """
17        String representation of a dog
18        """
19        return "Woof! I'm %s the %s (%s years)." % (self.name, self.breed, self.age)
20
21 # ex
22 dog = Dog("Doug", "Pug", 8, ["white", "black", "beige"])
23
24 print dog # the method __str__ is called
25 # => Woof! I'm Doug the Pug (8 years).
26
27 dog.print_fur_colors()
28 # => Doug has the following fur colors: white, black, beige
```

# Exempel på klassdiagram

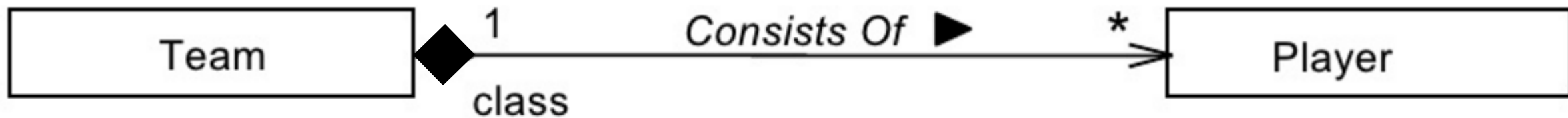
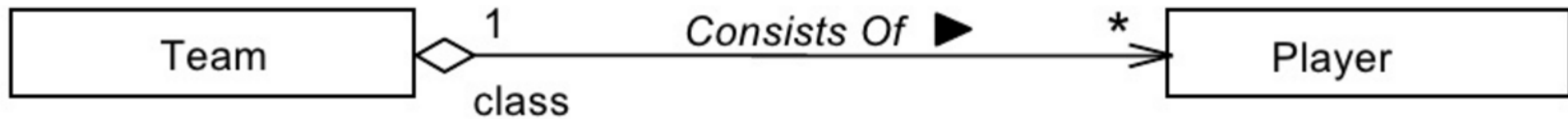


# Sekvensdiagram => Betéende

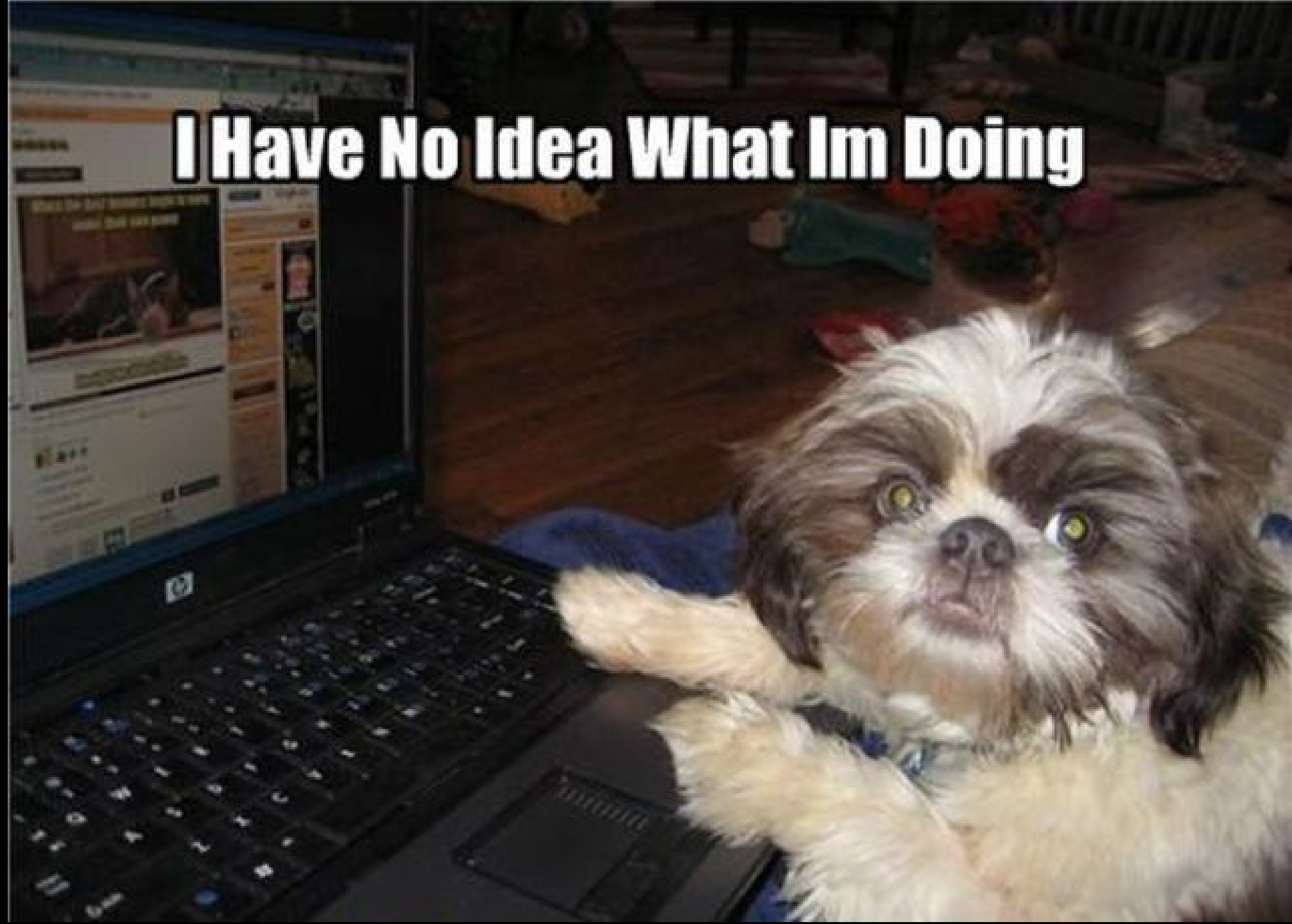
## Telephone Call



**Klassmetoder, klassdiagram,  
klassattribut**



**I Have No Idea What Im Doing**



Learn by **DOING**.





**<https://goo.gl/yc6NFf>**