

# Deligation ¶

## If classes are objects what is the difference between types and instances?

When I talk about "my cat" I am referring to a concrete instance of the "cat" concept, which is a subtype of "animal". So, despite being both objects, while types can be specialized, instances cannot.

Usually an object B is said to be a specialization of an object A when:

- B has all the features of A
- B can provide new features
- B can perform some or all the tasks performed by A in a different way

Those targets are very general and valid for any system and the key to achieve them with the maximum reuse of already existing components is delegation.

**Delegation** means that an object shall **perform only what it knows best**, and **leave the rest to other objects**.

## Delegation can be implemented with two different mechanisms:

1. Composition (explicit deligation)
2. Inheritance (implicit deligation)

In [ ]: