Inheritance

Inheritance is the process where one class acquires, the attributes and methods of another

# Important subjects

## Super

Super is a super constructor you need in a subclass if you want to inherit the attributes and methods from the superclass

## Extends

Extends the attributes and methods of the superclass to the subclass or classes.

## Benefits of inheritance

1. We don’t need to list attributes or methods twice or D.R.Y - Don’t repeat yourself
2. Subclasses can have their own methods and attributes

## Uses of inheritance

1. Inheritance should be used when more than one class, could have attributes or methods in common.

For example, both a bike and a car are vehicles, therefore they should both have the attribute speed, and the methods go and stop.

## Relationships

When using inheritance relationships is important to understand.

## Is a

For example, a cat is an animal, or a car is a vehicle.

A dog is also an animal, and a bike is also a vehicle, and so on...

So here animal should be a superclass to the dog subclass

And vehicle should be the superclass to the bike subclass

## Has a

A class that references another class.

This means a dog can have a favorite toy, but the dog is not itself a toy.

For example, Here the dog class would reference a toy class object in its constructor

## Override

Override simply means, that a class can have its own version of a method.

For example, if there is a superclass called animal and two subclasses dog and cat. They both have the method the play, but dogs and cats play differently.

Since that is the case override is used in the subclasses