Java Polymorphism

Polymorphism means "many forms", and it occurs when we have many classes that are related to each other by inheritance.

Like we specified **Inheritance** lets us inherit attributes and methods from another class. **Polymorphism** uses those methods to perform different tasks. This allows us to perform a single action in different ways.

For example, think of a superclass called `Animal` that has a method called `animalSound()`. Subclasses of Animals could be Pigs, Cats, Dogs, Birds - And they also have their own implementation of an animal sound (the pig oinks, and the cat meows, etc.):

Example

MyMainClass.java

```
class Animal {
  public void animalSound() {
    System.out.println("The animal makes a sound");
  }
}

class Pig extends Animal {
  public void animalSound() {
    System.out.println("The pig says: wee wee");
  }
}

class Dog extends Animal {
  public void animalSound() {
    System.out.println("The dog says: bow wow");
  }
}
class MyMainClass {
  public static void main(String[] args) {
    Animal myAnimal = new Animal();
    Animal myPig = new Pig();
    Animal myDog = new Dog();

    myAnimal.animalSound();
    myPig.animalSound();
    myDog.animalSound();
  }
}
```

Result:

```
The animal makes a sound
The pig says: wee wee
The dog says: bow wow
```