**Inheritance**: <https://www.javatpoint.com/inheritance-in-java>

Inheritance in Java is a mechanism in which one object acquires all the properties and behaviors of a parent object.

The idea behind inheritance in Java is that you can create new classes

that are built upon existing classes. When you inherit from an existing class, you can reuse methods and fields of the parent class. Moreover, you can add new methods and fields in your current class also.

Why use inheritance in java:

1. Method Overriding

(so runtime polymorphism

can be achieved).

1. For Code Reusability.

**Polymorphism**: <https://www.geeksforgeeks.org/polymorphism-in-java/>

Polymorphism allows us to perform a single action in different ways. In other words, polymorphism allows you to define one interface and have multiple implementations. The word “poly” means many and “morphs” means forms, So it means many forms.

In Java polymorphism is mainly divided into two types:

* Compile-time Polymorphism - Method overloading
* Runtime Polymorphism - Method overriding

**Method Overloading**: If a [class](https://www.javatpoint.com/object-and-class-in-java) has multiple methods having same name but different in parameters, it is known as Method Overloading.

**Method overriding:**

If subclass (child class) has the same method as declared in the parent class, it is known asmethod overriding in Java.