

IP Inheritance Polymorphism

Why Should We use It?

Efficiency : This can speed up projects.

Code Reusability : Saves time, space, and brainpower.

Polymorphism is the ability of an object to take on many forms.

Inheritance is a mechanism wherein a new class is derived from an existing class.

Inheritance

Versus

Polymorphism

INHERITANCE

POLYMORPHISM

Allowing a new class to use properties of a superclass

Ability of an object to behave in multiple ways

Implementation of inheritance occurs in class level

Implementation of polymorphism occurs in method level

Provides code reusability

Allows calling methods accordingly at compile and runtime



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Polymorphism Example Code

```
class Bike{
    void run(){System.out.println("running");}
}
class Splendor extends Bike{
    void run()
{System.out.println("running safely with 60km");
}

public static void main(String args[]){
    Bike b = new Splendor();//upcasting
    b.run();
}
```

class "Surgeon"
mewarisi class
"Doctor"

Meng cast object
Splendid menjadi
sebuah object bertipe
"Bike" (super nya)

Inheritance Example Code

```
class Doctor {
    void Doctor_Details() {
        System.out.println("Doctor Details...");
    }
}
class Surgeon extends Doctor {
    void Surgeon_Details() {
        System.out.println("Surgen Detail...");
    }
}
public class Hospital {
    public static void main(String args[]) {
        Surgeon s = new Surgeon();
        s.Doctor_Details();
        s.Surgeon_Details();
    }
}
```