



# SNS COLLEGE OF ENGINEERING

Coimbatore-107  
An Autonomous Institution

**COURSE NAME : 23CSB201 & Object Oriented Programming**

**II YEAR/ III SEMESTER**

**UNIT – II INHERITANCE, PACKAGES, INTERFACE**

***Topic: Method Overriding***

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# Introduction

- Method Overriding in Java occurs when a subclass (child class) provides a specific implementation of a method that is already defined in its superclass (parent class)
- The overridden method in the child class should have the same name, return type, and parameters as the method in the parent class



# Rules for Method Overriding

- The method in the child class must have the **same name** as the parent class
- The method must have the **same return type** or a **subtype**
- The **access modifier** in the child class must be **same or more visible** than the parent class
- **Private, static, and final methods** cannot be overridden
- The overriding method **cannot throw a broader exception** than the method in the parent class



# Why use Method Overriding?

- To achieve Runtime Polymorphism
- To **provide a specific implementation** of a method already defined in the parent class



# Example

```
class Animal {  
    public void sound() {  
        System.out.println("Animal makes sound");  
    }  
}  
  
class Cat extends Animal {  
    @Override  
    public void sound() {  
        System.out.println("Cat meows");  
    }  
}
```



# Example

public class Main

{

public static void main(String[] args)

{

Animal myAnimal = new Dog(); // Upcasting

myAnimal.sound(); // Calls the overridden method in Dog class

}

}



# References

- Java : the complete Reference ( Eleventh Edition), Herbert Schildt, 2018.

