SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

23CSB101
OBJECT ORIENTED PROGRAMMING

UNIT II
INHERITANCE, PACKAGES AND INTERFACES

METHOD OVERRIDING

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DYNAMIC METHOD DISPATCH

Dynamic Method Dispatch (also called Runtime Polymorphism) is a feature in Java that allows **a parent class reference** to call an overridden method of a child class at runtime.

DYNAMIC METHOD DISPATCH

```java
.class Vehicle {
    void speed() {
        System.out.println("Vehicle is moving");
    }
}
class Car extends Vehicle {
    @Override
    void speed() {
        System.out.println("Car is moving at 60 mph");
    }
}
class Bike extends Vehicle {
    @Override
    void speed() {
        System.out.println("Bike is moving at 40 mph");
    }
}
```

UNIT II/ OOPS /KANCHANA MOORTHY/AP/CSE/SNSCE

DYNAMIC METHOD DISPATCH

```java
public class Main {
    public static void main(String[] args) {
        Vehicle v;  // Parent class reference

        v = new Car(); // v refers to a Car object
        v.speed();    // Calls Car's speed() method (Runtime decision)

        v = new Bike(); // v now refers to a Bike object
        v.speed();     // Calls Bike's speed() method (Runtime decision)
    }
}
```

USE:

Polymorphism – A single reference type (Vehicle) can be used for different subclasses (Car, Bike).

THANK YOU