Java Examples

Example 1: Shape class with overridden area method

```
class Shape {
    void area() {
        System.out.println("Calculating area...");
    }
}

class Square extends Shape {
    void area() {
        int side = 5;
        int area = side * side;
        System.out.println("Square Area = " + area);
    }
}

class Triangle extends Shape {
    void area() {
        int base = 6;
        int height = 4;
        double area = 0.5 * base * height;
        System.out.println("Triangle Area = " + area);
    }
}

public class Main {
    public static void main(String[] args) {
        Square s = new Square();
        s.area();
```

```
        Triangle t = new Triangle();
        t.area();
    }
}
```

Example 2: Vehicle class with child classes

```
class Vehicle {
    void details() {
        System.out.println("General vehicle");
    }
}

class Bus extends Vehicle {
    void details() {
        System.out.println("Bus: Volvo, 40 seats");
    }
}

class Scooter extends Vehicle {
    void details() {
        System.out.println("Scooter: Activa, 110cc");
    }
}

public class Main2 {
    public static void main(String[] args) {
        Bus b = new Bus();
        b.details();

        Scooter s = new Scooter();
        s.details();
    }
```

```
}
```

Example 3: Employee class with fields and display

```
class Employee {
    int id;
    String name;
    int age;

    Employee(int i, String n, int a) {
        id = i;
        name = n;
        age = a;
    }

    void show() {
        System.out.println("ID: " + id);
        System.out.println("Name: " + name);
        System.out.println("Age: " + age);
        System.out.println();
    }
}

public class Main3 {
    public static void main(String[] args) {
        Employee e1 = new Employee(201, "Mayank", 22);
        Employee e2 = new Employee(202, "Ankit", 25);
        Employee e3 = new Employee(203, "Riya", 24);

        e1.show();
        e2.show();
        e3.show();
    }
```

```
}
```

Example 4: Calculator with modulus and power operations

```
class Calculator {
    int x, y;

    Calculator(int a, int b) {
        x = a;
        y = b;
    }

    void mod() {
        System.out.println("Modulus: " + (x % y));
    }

    void power() {
        int result = 1;
        for(int i = 0; i < y; i++) {
            result *= x;
        }
        System.out.println("Power: " + result);
    }
}

public class Calmain {
    public static void main(String[] args) {
        Calculator c = new Calculator(3, 4);
        c.mod();
        c.power();
    }
}
```