```java
abstract class Animal {

    private String name;

    private int age;


    public Animal(String name, int age) {

        this.name = name;

        this.age = age;

    }


    // Abstraction

    public abstract void makeSound();


    public void displayInfo() {

        System.out.println("Name: " + name + ", Age: " + age);

    }


    // Encapsulation

    public String getName() {

        return name;

    }


    public void setName(String name) {

        this.name = name;

    }


    public int getAge() {

        return age;

    }


    public void setAge(int age) {

        this.age = age;
```

```java
    }
}


// Inheritance
class Dog extends Animal {
    private String breed; // Encapsulation

    public Dog(String name, int age, String breed) {
        super(name, age);
        this.breed = breed;
    }

    // Method overriding - Polymorphism
    @Override
    public void makeSound() {
        System.out.println("Woof");
    }

    // Method overloading - Polymorphism
    public void makeSound(String sound) {
        System.out.println(sound);
    }

    // Encapsulation
    public String getBreed() {
        return breed;
    }

    public void setBreed(String breed) {
        this.breed = breed;
    }
```

```java
    }

//Inheritance
class Cat extends Animal {
    private String color; // Encapsulation

    public Cat(String name, int age, String color) {
        super(name, age);
        this.color = color;
    }

    // Method overriding - Polymorphism
    @Override
    public void makeSound() {
        System.out.println("Meow");
    }

    //  Encapsulation
    public String getColor() {
        return color;
    }

    public void setColor(String color) {
        this.color = color;
    }
}

public class Main {
    public static void main(String[] args) {
        Animal dog = new Dog("Buddy", 3, "Golden Retriever");
        Animal cat = new Cat("Whiskers", 2, "Black");
```

```java
        // method overriding

        dog.makeSound();

        cat.makeSound();


        // method overloading

        ((Dog) dog).makeSound("Bow");


        // encapsulation

        dog.displayInfo();

        cat.displayInfo();


        System.out.println("Dog breed: " + ((Dog) dog).getBreed());

        System.out.println("Cat color: " + ((Cat) cat).getColor());
    }
}
```

Output

```
java -cp /tmp/KQ5bCDoxi8/Main
Woof
Meow
Bow
Name: Buddy, Age: 3
Name: Whiskers, Age: 2
Dog breed: Golden Retriever
Cat color: Black

=== Code Execution Successful ===
```