# Java Lab File

## Lab 4:-

**Program 12**: Write a java program to implement run time polymorphism using method overriding.

Code:-

```java
class Animal {
    void sound() {
        System.out.println("Animal makes a sound");
    }
}
class Dog extends Animal {
    void sound() {
        System.out.println("Dog barks");
    }
}
class Cat extends Animal {
    void sound() {
        System.out.println("Cat meows");
    }
}
public class Kartik{
    public static void main(String args[]){
        // Method Over-riding
        Animal animal1 = new Animal();
        Animal animal2 = new Dog(); // constructor of "DOG" class
will be called
        Animal animal3 = new Cat(); // constructor of "Cat" class
will be called
        // but the object is of Animal class---
        animal1.sound(); // Output: Animal makes a sound
        animal2.sound(); // Output: Dog barks
        animal3.sound(); // Output: Cat meows
    }
}
```

**Output**

```
[Running] cd "c:\Users\Kartik Verm
Animal makes a sound
Dog barks
Cat meows
```