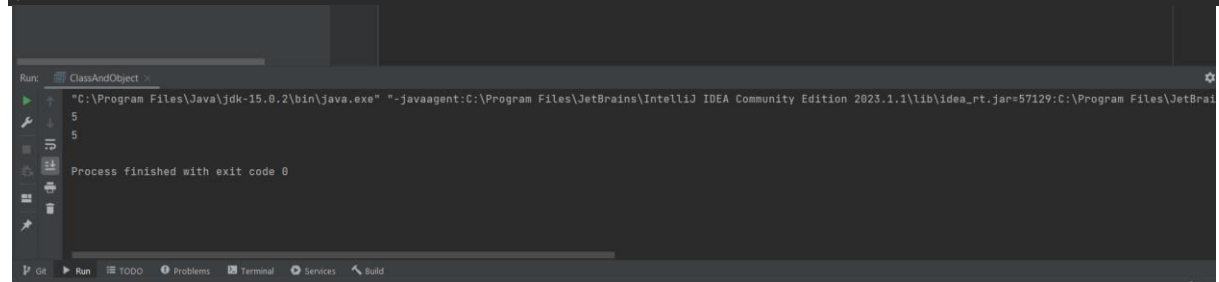
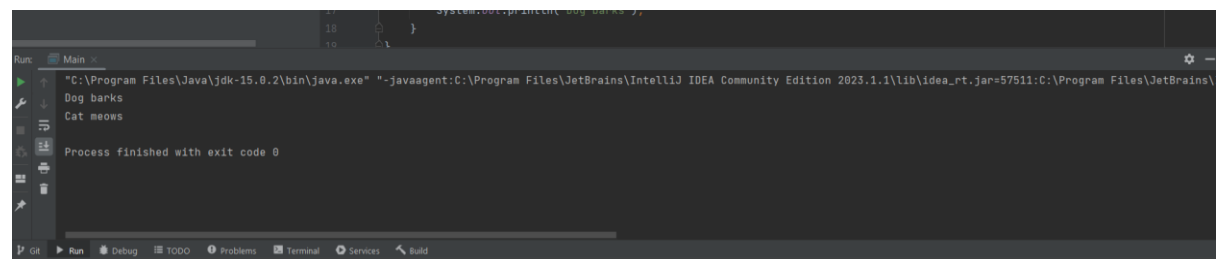


```
package Project10May;
public class ClassAndObject {
    int x = 5;
    public static void main(String[] args) {
        ClassAndObject myObj1 = new ClassAndObject();
        ClassAndObject myObj2 = new ClassAndObject();
        System.out.println(myObj1.x);
        System.out.println(myObj2.x);
    }
}
```



Polymorphism

```
package Project10May;
public class Main {
    public static void main(String[] args) {
        Animal a1 = new Dog();
        Animal a2 = new Cat();
        a1.makeSound();
        a2.makeSound();
    }
}
class Animal {
    public void makeSound() {
        System.out.println("Animal makes a sound");
    }
}
class Dog extends Animal {
    public void makeSound() {
        System.out.println("Dog barks");
    }
}
class Cat extends Animal {
    public void makeSound() {
        System.out.println("Cat meows");
    }
}
```

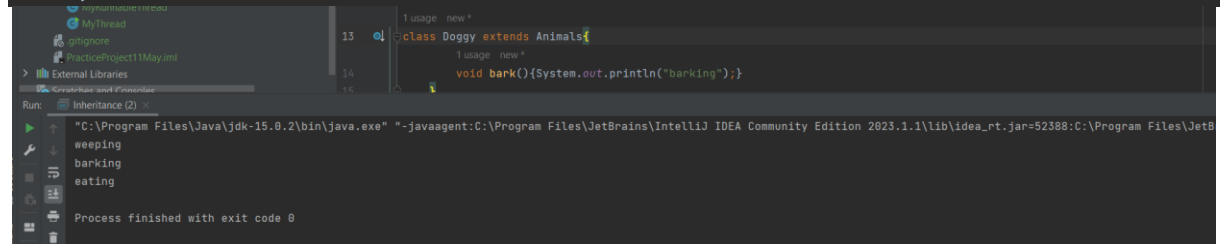


Inheritance

```
package Project10May;

public class Inheritance {
```

```
public static void main(String args[]){
    BabyDog d=new BabyDog();
    d.weep();
    d.bark();
    d.eat();
}
class Animals{
    void eat(){System.out.println("eating");}
}
class Doggy extends Animals{
    void bark(){System.out.println("barking");}
}
class BabyDog extends Doggy{
    void weep(){System.out.println("weeping");}
}
```



Encapsulation

```
package Project10May;

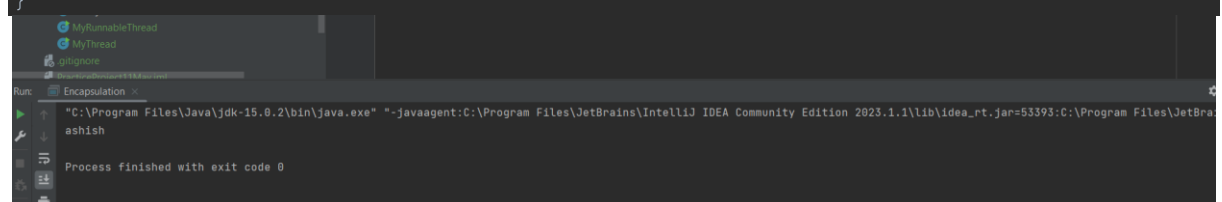
public class Encapsulation {
    public static void main(String[] args){
        Ashish s=new Ashish();
        s.setName("ashish");
        System.out.println(s.getName());
    }
}
```

```
package Project10May;

public class Ashish {
    private String name;

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }
}
```



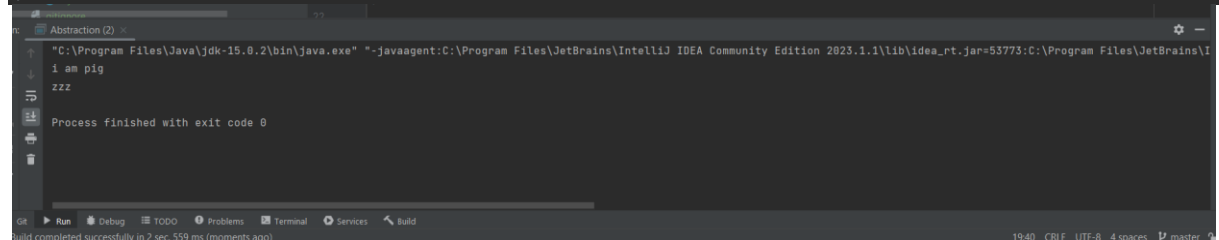
Abstraction

```
package Project10May;

public class Abstraction {
    public static void main(String[] args) {
        Pig myPig = new Pig();
        myPig.animalSound();
        myPig.sleep();
    }
}

abstract class Anima {
    public abstract void animalSound();
    public void sleep() {
        System.out.println("zzz");
    }
}

class Pig extends Anima {
    public void animalSound() {
        System.out.println("i am pig");
    }
}
```



The screenshot shows the IDE's terminal window for the 'Abstraction (2)' project. The command executed is: `"C:\Program Files\Java\jdk-15.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2023.1.1\lib\idea_rt.jar=53773:C:\Program Files\JetBrains\I`. The output of the program is displayed as: `i am pig` followed by `zzz` on the next line. Below the output, it states 'Process finished with exit code 0'. The IDE's status bar at the bottom indicates 'Build completed successfully in 2 sec. 559 ms (moments ago)' and shows the current time as 19:40.