

Philip Pesic

Week 13

April 16 2023

Week 13 Prog 2

* Part 2 - Write the code example 1 found in the lecture notes

Run the code.

```
package Prog2;

class prog2 {
    public static void main(String[] args) {
        animal a = new animal();
        animal c = new cat();
        animal d = new dog();

        a.animalSound();
        c.animalSound();
        d.animalSound();

        System.out.println("Philip Pesic 4/16/23");
    }
}

package Prog2;

public class animal {
    void animalSound() {
        System.out.println("The animal makes a sound");
    }
}

package Prog2;

public class cat extends animal {
    void animalSound() {
        System.out.println("The cat goes meow");
    }
}
```

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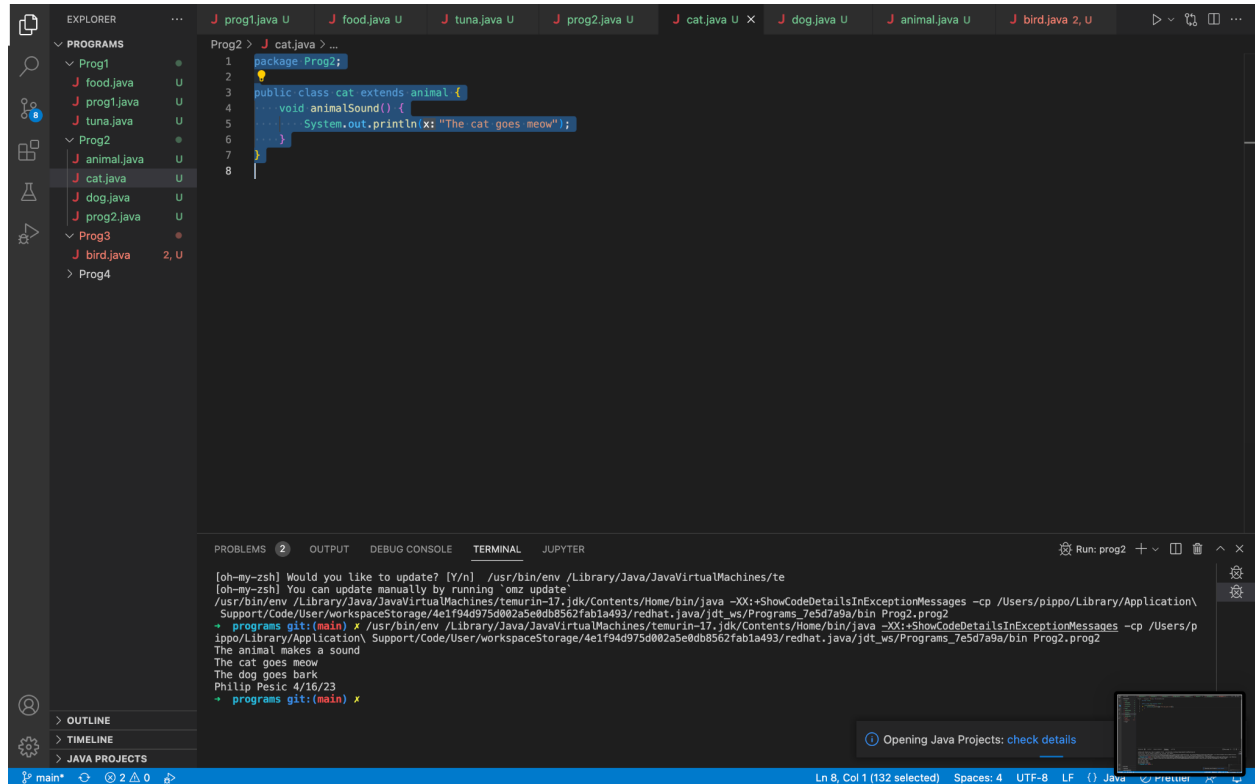
```
}  
  
package Prog2;  
  
public class dog extends animal {  
    void animalSound() {  
        System.out.println("The dog goes bark");  
    }  
}
```

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The screenshot shows an IDE with a project named 'Prog2'. The Explorer panel on the left lists files: Prog1 (food.java, prog1.java, tuna.java), Prog2 (animal.java, cat.java, dog.java, prog2.java), Prog3 (bird.java), and Prog4. The main editor displays the code for 'cat.java' in 'Prog2', which defines a 'cat' class extending 'animal' with an 'animalSound()' method that prints 'The cat goes meow!'. The terminal at the bottom shows the command 'java Prog2' being executed, resulting in the output 'The cat goes meow!'. The status bar at the bottom indicates 'Ln 8, Col 1 (132 selected) Spaces: 4 UTF-8 LF Java'.

```
package Prog2;

public class cat extends animal {
    void animalSound() {
        System.out.println("The cat goes meow!");
    }
}
```

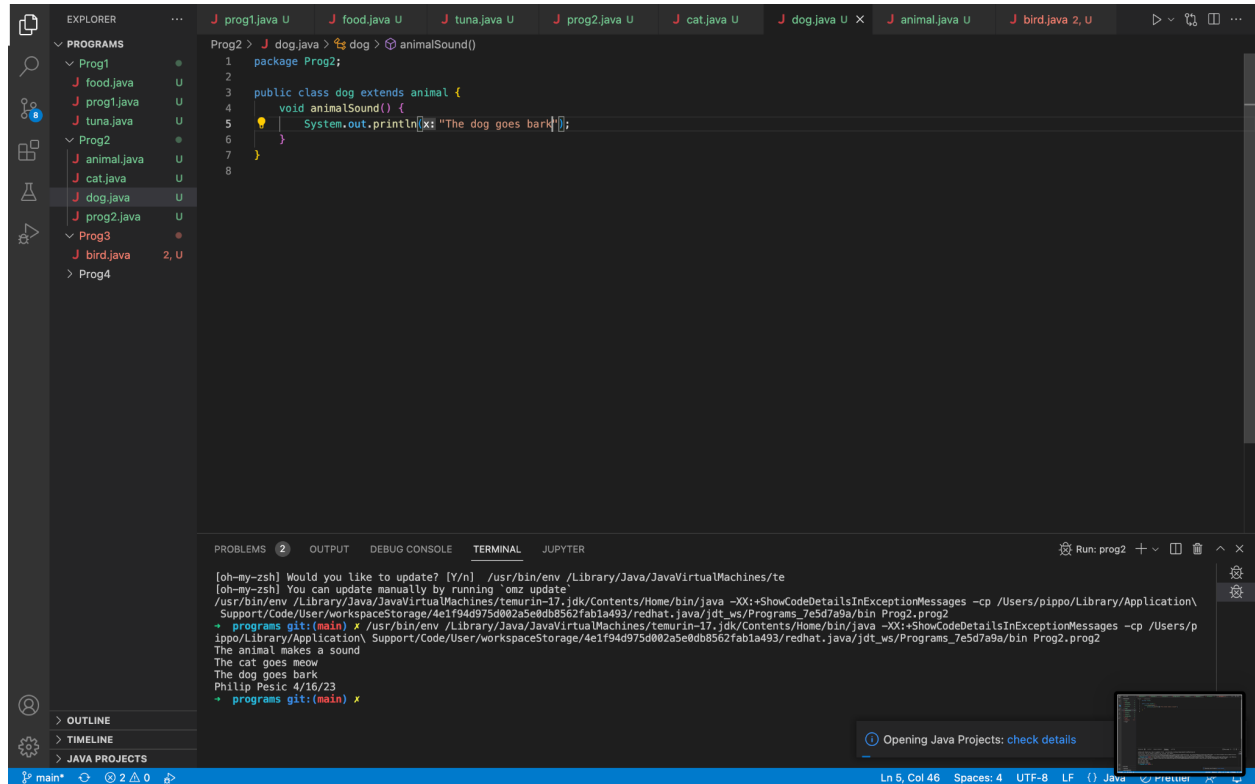
```
[oh-my-zsh] Would you like to update? [Y/n] /usr/bin/env /Library/Java/JavaVirtualMachines/te
[oh-my-zsh] You can update manually by running 'omz update'
/usr/bin/env /Library/Java/JavaVirtualMachines/temurin-17.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/pippo/Library/Application\
Support/Code/User/workspaceStorage/4e1f94d975d002a5e8db8562fab1a493/redhat.java/jdt_ws/Programs_7e5d7a9a/bin Prog2.prog2
+ programs git:(main) * /usr/bin/env /Library/Java/JavaVirtualMachines/temurin-17.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/p
ippo/Library/Application\ Support/Code/User/workspaceStorage/4e1f94d975d002a5e8db8562fab1a493/redhat.java/jdt_ws/Programs_7e5d7a9a/bin Prog2.prog2
The animal makes a sound
The cat goes meow
The dog goes bark
Philip Pesic 4/16/23
+ programs git:(main) *
```

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The screenshot shows an IDE with a dark theme. The Explorer panel on the left shows a project structure with folders 'Prog1' and 'Prog2'. 'Prog2' contains files 'animal.java', 'cat.java', 'dog.java', 'prog2.java', and 'bird.java'. The main editor shows the code for 'animal.java' with the following content:

```
1 package Prog2;
2
3 public class animal {
4     void animalSound() {
5         System.out.println("The animal makes a sound");
6     }
7 }
8
```

The bottom panel shows the 'TERMINAL' tab with the following output:

```
[oh-my-zsh] Would you like to update? [Y/n] /usr/bin/env /Library/Java/JavaVirtualMachines/te
[oh-my-zsh] You can update manually by running 'omz update'
/usr/bin/env /Library/Java/JavaVirtualMachines/temurin-17.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/pippo/Library/Application\
Support/Code/User/workspaceStorage/4e1f94d975d002a5e8db8562fab1a493/redhat.java/jdt_ws/Programs_7e5d7a9a/bin Prog2.prog2
+ programs git:(main) * /usr/bin/env /Library/Java/JavaVirtualMachines/temurin-17.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/p
ippo/Library/Application\ Support/Code/User/workspaceStorage/4e1f94d975d002a5e8db8562fab1a493/redhat.java/jdt_ws/Programs_7e5d7a9a/bin Prog2.prog2
The animal makes a sound
The cat goes meow
The dog goes bark
Philip Pesic 4/16/23
+ programs git:(main) *
```

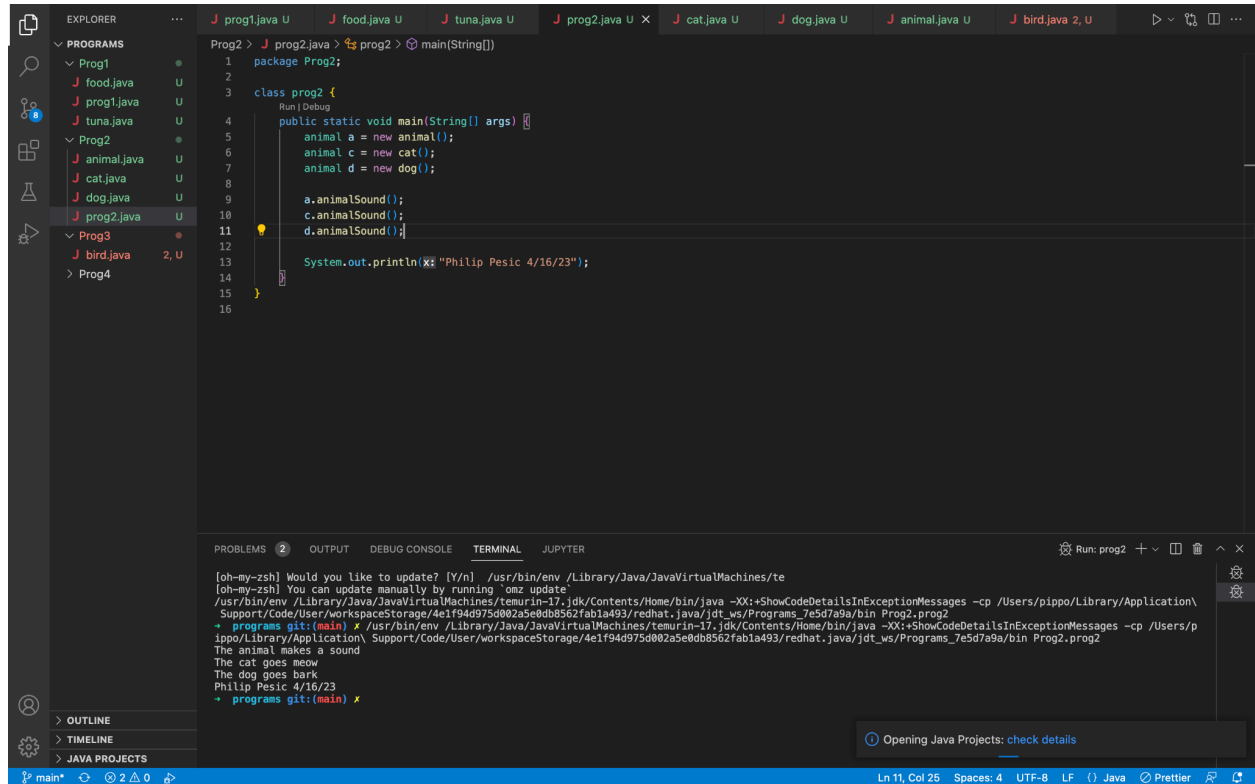
A notification at the bottom right says 'Opening Java Projects: check details'.

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The screenshot shows an IDE with a project named 'Prog2'. The Explorer panel on the left lists files: Prog1 (food.java, prog1.java, tuna.java), Prog2 (animal.java, cat.java, dog.java, prog2.java), Prog3 (bird.java), and Prog4. The main editor displays the code for Prog2.java, which defines a 'Prog2' package and a 'prog2' class. The class has a 'main' method that creates instances of 'animal', 'cat', and 'dog' and calls their 'animalSound()' methods. A 'Run | Debug' button is visible above the code. The Terminal panel at the bottom shows the output of running the program, which includes the date 'Philip Pesic 4/16/23' and the output of the 'animalSound()' methods: 'The animal makes a sound', 'The cat goes meow', and 'The dog goes bark'. A status bar at the bottom indicates the current line and column (Ln 11, Col 25) and the file encoding (UTF-8).

```
1 package Prog2;
2
3 class prog2 {
4
5     public static void main(String[] args) {
6         animal a = new animal();
7         animal c = new cat();
8         animal d = new dog();
9
10        a.animalSound();
11        c.animalSound();
12        d.animalSound();
13    }
14
15    System.out.println("Philip Pesic 4/16/23");
16 }
```

Terminal Output:

```
[oh-my-zsh] Would you like to update? [Y/n] /usr/bin/env /Library/Java/JavaVirtualMachines/te
[oh-my-zsh] You can update manually by running 'omz update'
/usr/bin/env /Library/Java/JavaVirtualMachines/temurin-17.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/pippo/Library/Application\
Support/Code/User/workspaceStorage/4e1f94d975d002a5e8db8562fab1a493/redhat.java/jdt_ws/Programs_7e5d7a9a/bin Prog2.prog2
+ programs git:(main) * /usr/bin/env /Library/Java/JavaVirtualMachines/temurin-17.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -cp /Users/p
ippo/Library/Application\ Support/Code/User/workspaceStorage/4e1f94d975d002a5e8db8562fab1a493/redhat.java/jdt_ws/Programs_7e5d7a9a/bin Prog2.prog2
The animal makes a sound
The cat goes meow
The dog goes bark
Philip Pesic 4/16/23
+ programs git:(main) *
```

I practiced using polymorphism in my own programs