

Tour of the BlueJ Environment

Compiling and Executing Java Code

- We will walk through example with BlueJ
 - Process similar with other environments
 - Using BlueJ because it's a great environment!



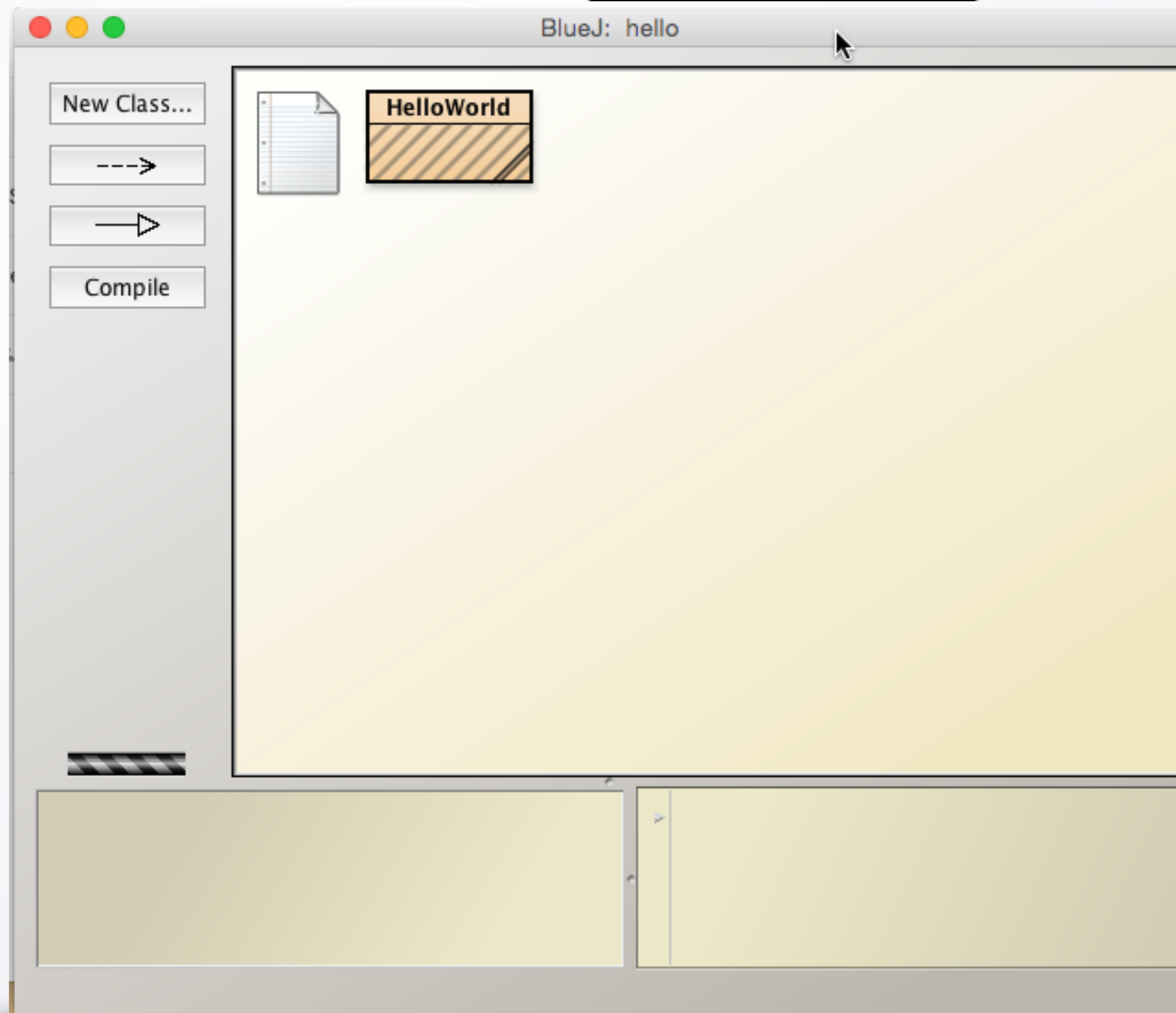
Compiling and Executing Java Code

- We will walk through example with BlueJ
 - Process similar with other environments
 - Using BlueJ because it's a great environment!
- Classes and objects in Java
 - Create object, use it to run program
- Practice to develop expertise
 - See it done, do it yourself!



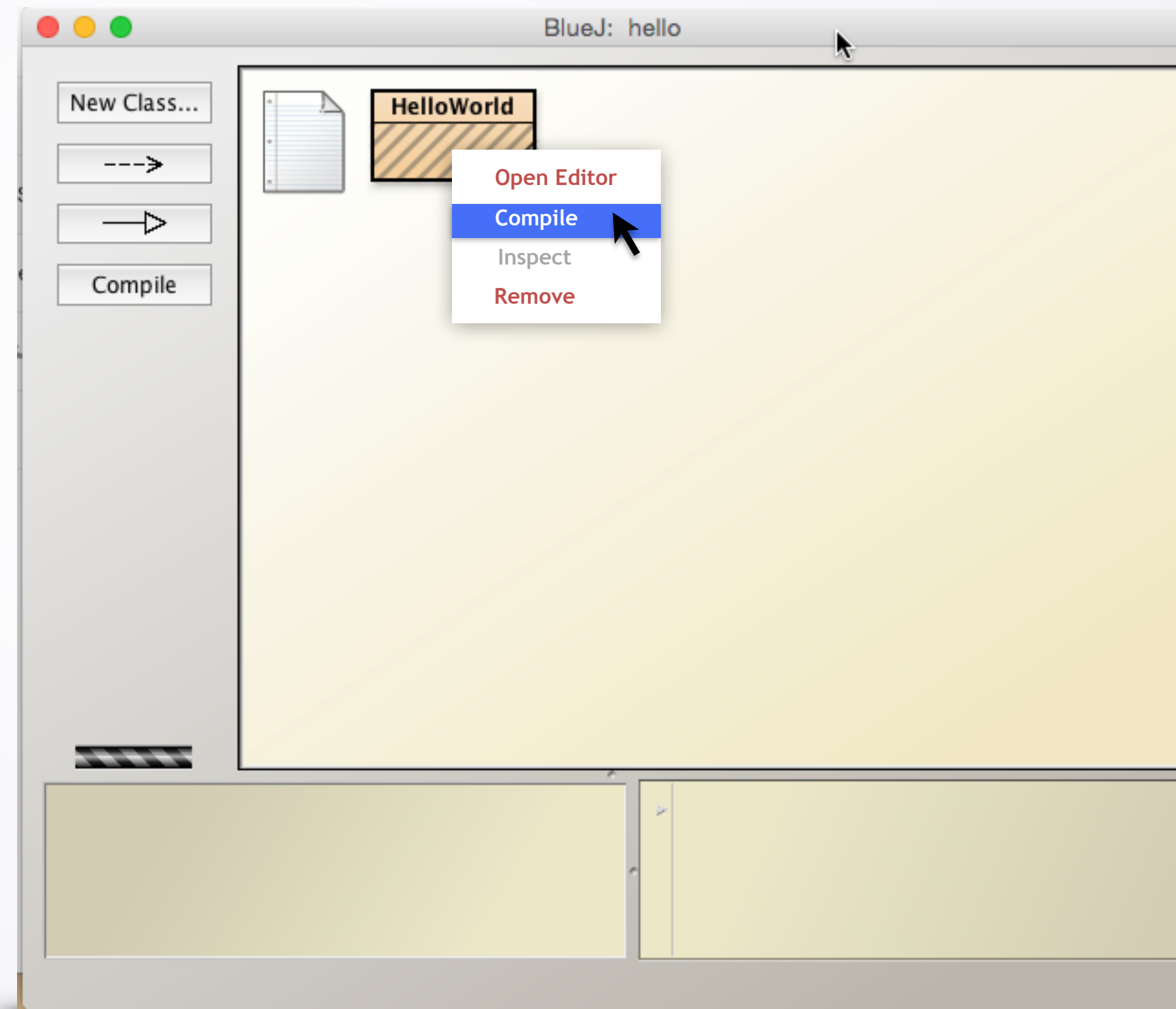
Starting with BlueJ

- BlueJ shows classes that are part of project
 - Class name is HelloWorld
 - Shading: needs to be compiled
 - Source code
 - Object code



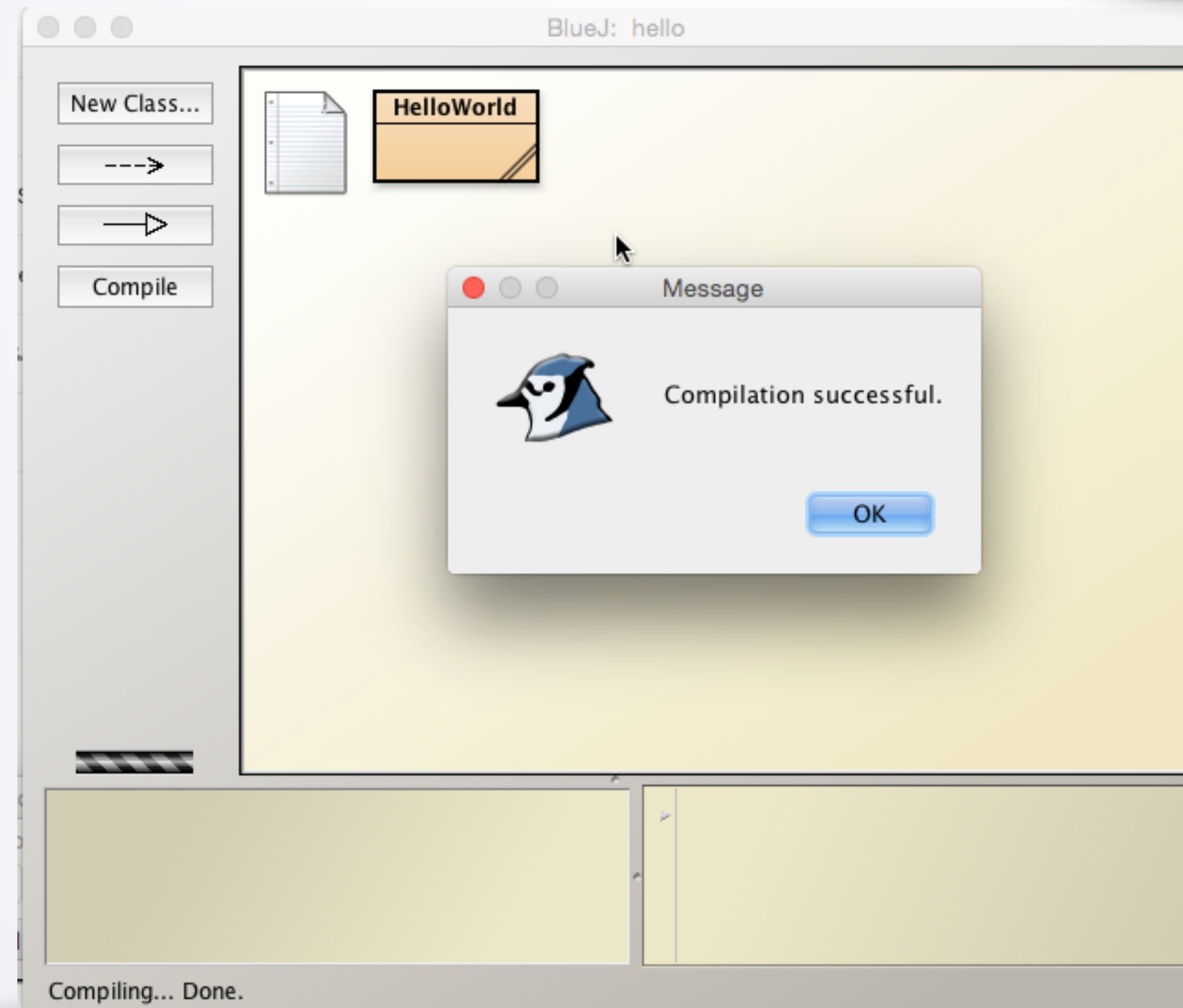
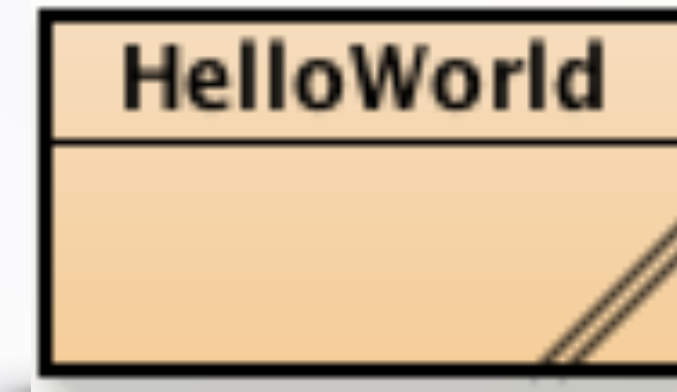
Compiling Source Code

- Right-click class icon to compile
 - Create compiled code to execute
 - Machine readable
- Source code
 - Human readable



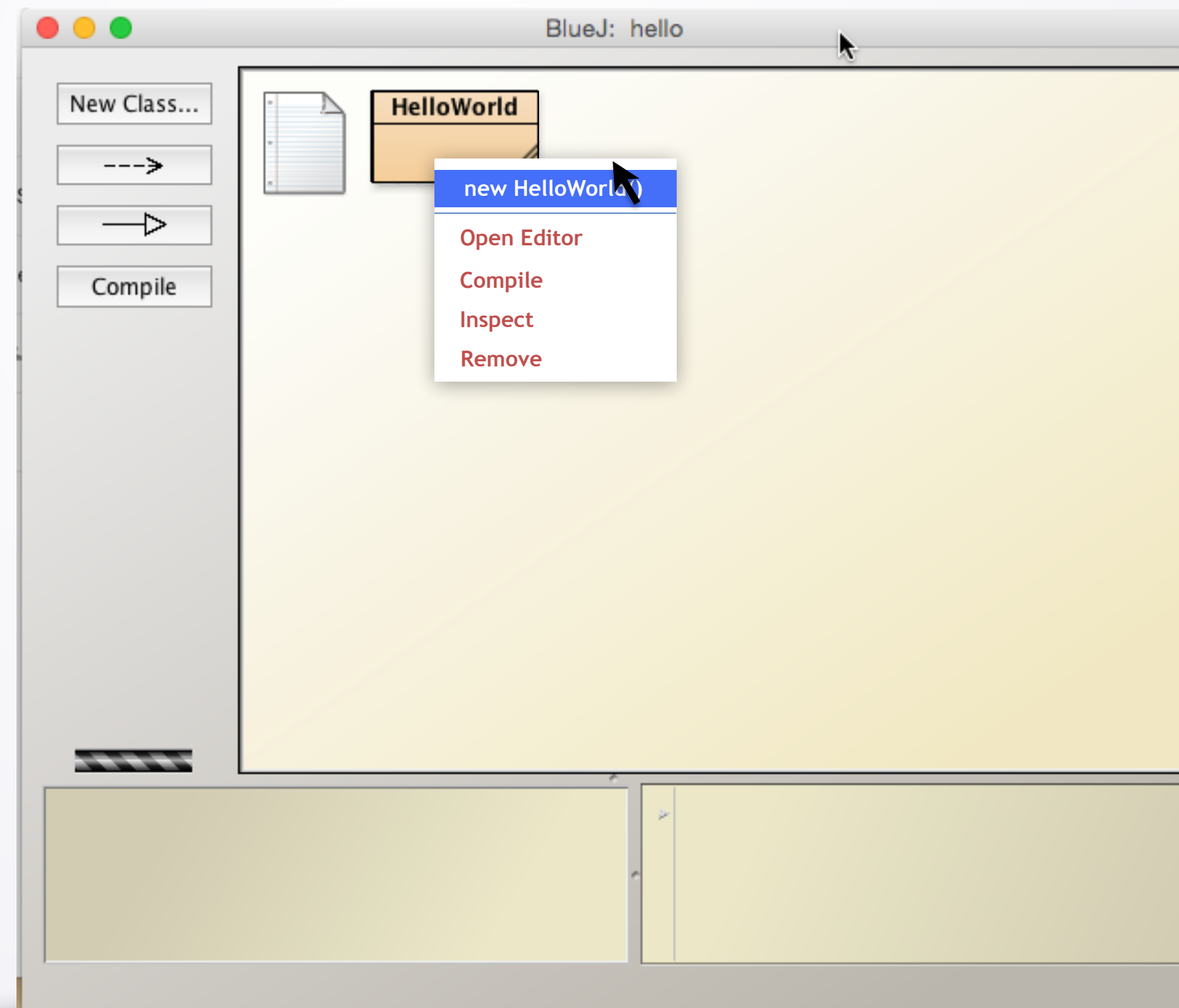
Compiling Successful

- Compiles! We've created object code
 - Class icon indicates success!
- Ready to run aka execute code



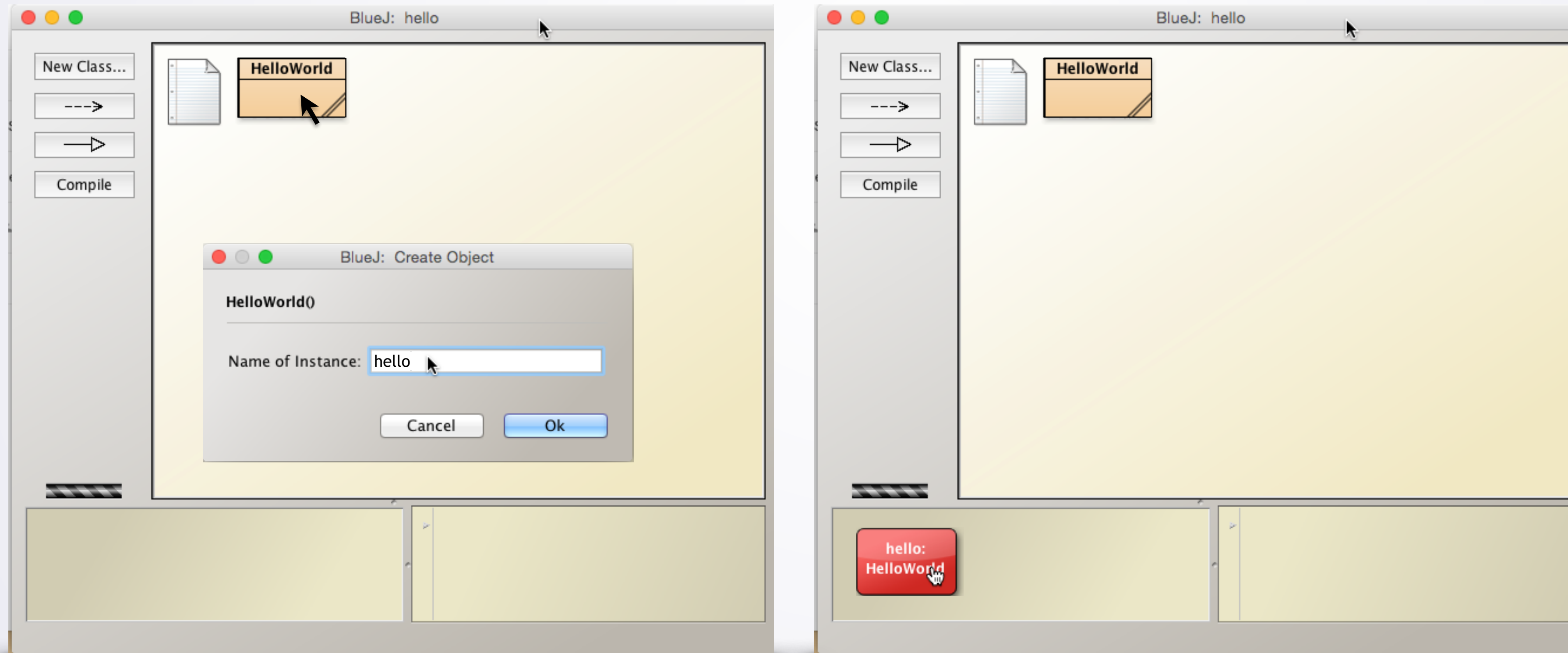
Creating Objects in Java and BlueJ

- Java source code is in a class
 - To run the program create an object
- Right-click and choose new HelloWorld
 - Name of class
 - Name of object



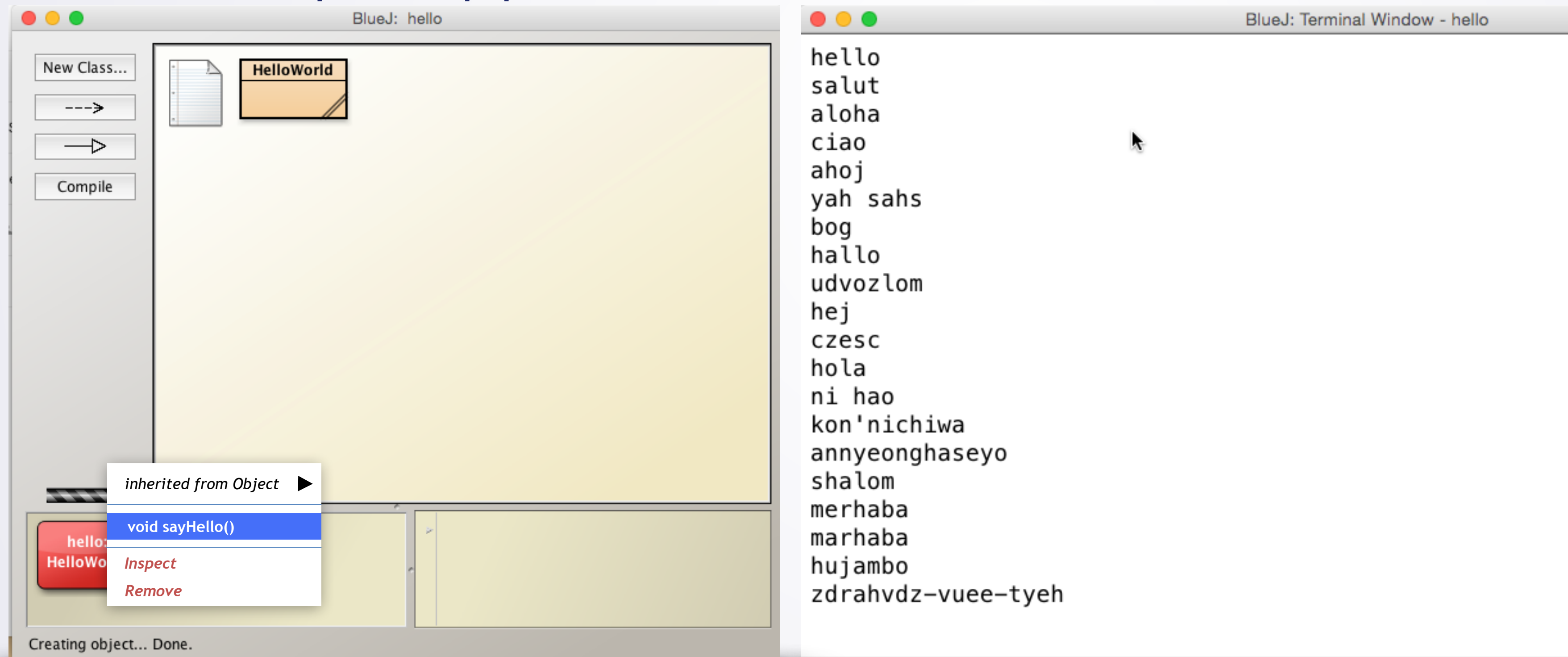
Naming Objects in BlueJ

- Right click on compiled class icon
 - Choose name for object, here that's 'hello'
 - Appears in object workbench with name



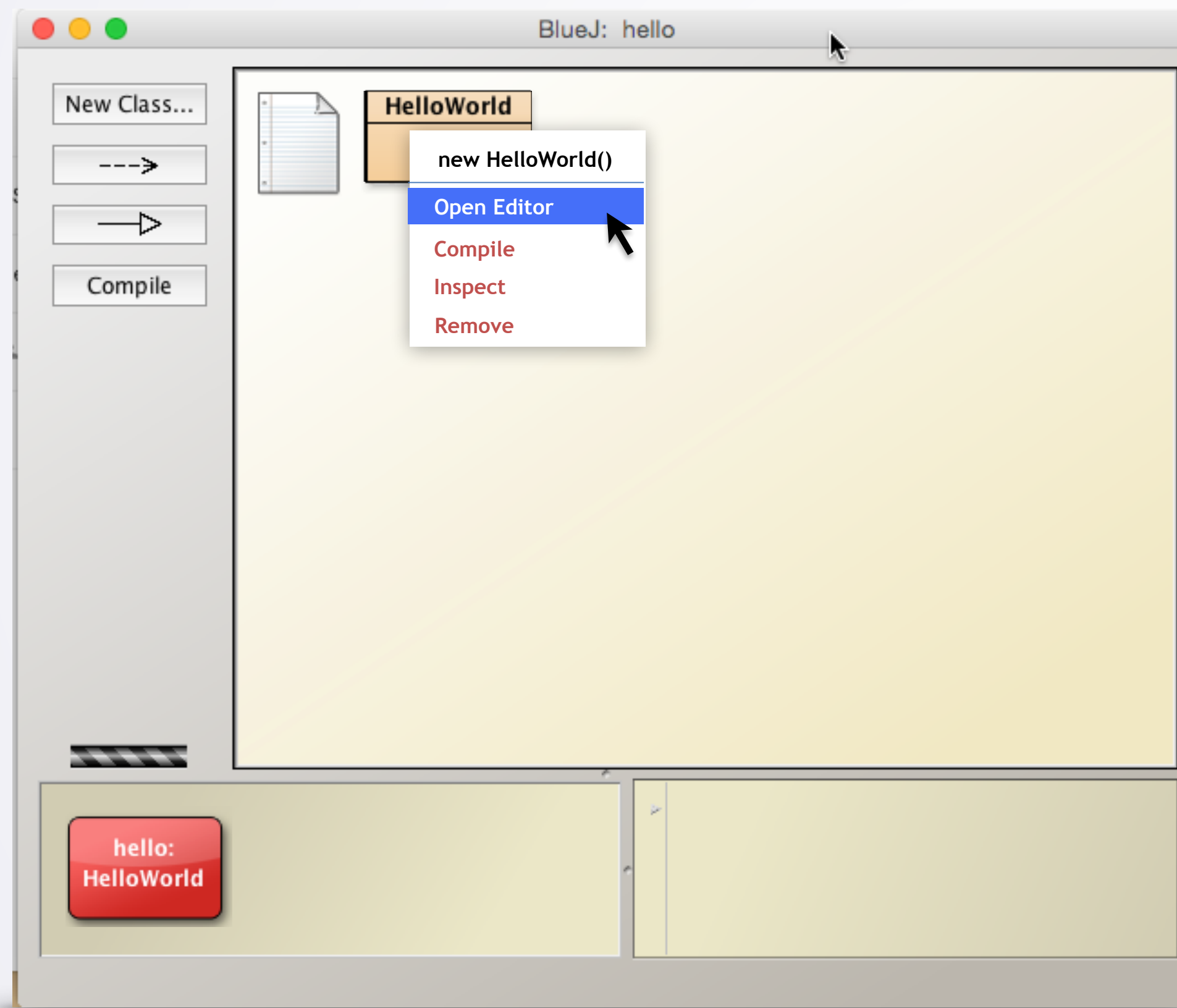
Calling a Method in BlueJ

- We can call any method, right-click object
 - Execute the method, causes it to run
 - Output appears in BlueJ terminal window



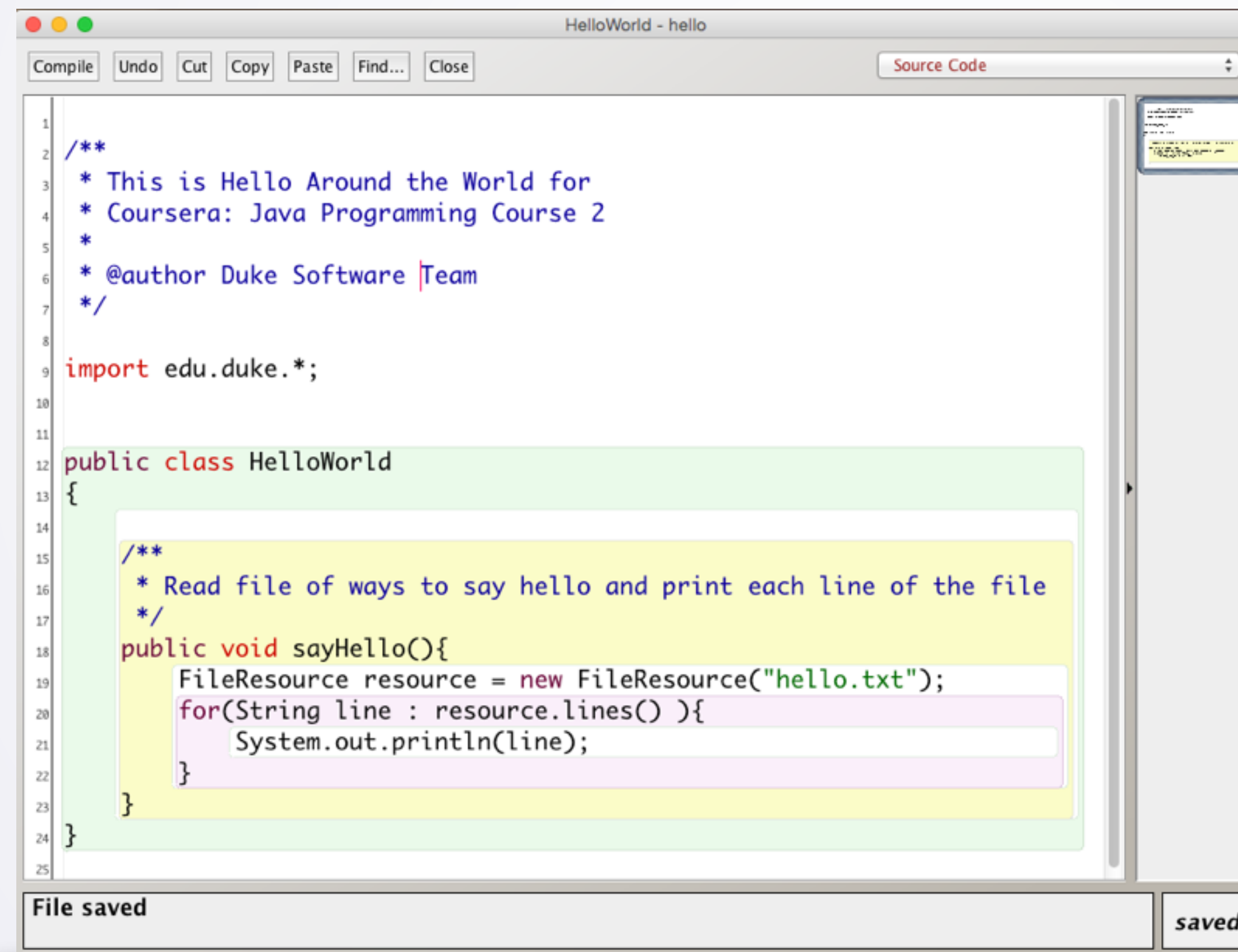
Showing and Editing Source Code

- Right click on class icon to open editor



Showing and Editing Source Code

- Right click on class icon to open editor
- Next steps: change code, recompile, re-run



The screenshot shows an IDE window titled "HelloWorld - hello". The window has a menu bar with "Compile", "Undo", "Cut", "Copy", "Paste", "Find...", and "Close". A "Source Code" tab is active. The code editor displays the following Java code:

```
1  /**
2  * This is Hello Around the World for
3  * Coursera: Java Programming Course 2
4  *
5  * @author Duke Software Team
6  */
7
8
9  import edu.duke.*;
10
11
12  public class HelloWorld
13  {
14
15      /**
16       * Read file of ways to say hello and print each line of the file
17       */
18      public void sayHello(){
19          FileResource resource = new FileResource("hello.txt");
20          for(String line : resource.lines() ){
21              System.out.println(line);
22          }
23      }
24  }
25
```

At the bottom of the window, there is a status bar with "File saved" on the left and a "saved" button on the right.