

## Introduction

In this lab you will use the Java you have learned in lecture to write a small program.

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## Preparatory tasks

1. Log in
2. Start Eclipse
3. Switch to the CVS Repository Exploring perspective
4. Check out the SP15-CSE115-Lab3 project from the Labs repository
5. Switch to the DrJava perspective

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## Lab Tasks

1. Define a class named `lab3.Conservatory`; define its constructor so that when the class is instantiated it creates an `example1.Terrarium` containing three moving `example1.Butterfly` objects.
  - ❖ *Test your program at each step along the way to make sure it has the desired behavior. Instantiate `lab3.Conservatory` in the DrJava interactions pane and check that a `Terrarium` with three moving `Butterflies` appears. If not, fix your code before moving on.*
2. Define a class named `lab3.Coop`; define its constructor so that when the class is instantiated it creates an `example1.Terrarium` containing four moving `example1.Chicken` objects.
  - ❖ *Test your program again. Instantiate `lab3.Coop` in the DrJava interactions pane and check that a `Terrarium` with four moving `Chickens` appears. If not, fix your code before moving on.*
3. Define a class named `lab3.Pen`; define its constructor so that when the class is instantiated it creates an `example1.Terrarium` containing five moving `example1.Pig` objects.
  - ❖ *Test your program again. Instantiate `lab3.Pen` in the DrJava interactions pane and check that a `Terrarium` with five moving `Pigs` appears. If not, fix your code before moving on.*
4. Define a class named `lab3.Farm`; define its constructor so that when the class is instantiated it creates one `lab3.Conservatory` object, two `lab3.Coop` objects and three `lab3.Pen` objects.
  - ❖ *Test your complete program. Instantiate `lab3.Farm` in the DrJava interactions pane and check that get six `Terrariums`, each with the expected number of critters. If not, fix your code before submitting to Web-CAT.*

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**Submitting your project to Web-CAT**

Make sure you submit your work on time; due dates are listed on the Labs page of the course website. This lab will be automatically graded by Web-CAT but graders will review all submissions, make grade adjustments and give feedback as appropriate.

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