

# Chapter 5: Summary

## Summary

Once again we've covered a lot in this lesson, from the concept of redrawing a window to animate a single object to animating any number of objects. We've just begun to investigate what you can do with Java, but I hope I've whetted your appetite and that you'll pursue more programming in the future.

And that brings us to the end of the lesson and the course! I've enjoyed going through it with you, and I hope you've enjoyed it too.

I wish you well with all your future pursuits, especially Java programming! Thank you for taking this course with me.

### Final Steps



Now that you've finished the last lesson, you have a few more things to do:

- **Check out the Supplementary Materials for this lesson.** As always, these are helpful resources.
- **Do the assignment and take the quiz:** These activities will help you master the material in this lesson and prepare for the final.
- **Take the final exam:** To complete the course, you'll need to take the final exam. You only get one chance, and it's the only graded activity. The final exam is cumulative—it covers everything in the course—and it's "open book" (you can have the classroom open as you complete it). To access the final exam, go to the course Learning Path and find the **Final Exam link** at the bottom.

### Before You Go...

- **Be sure to look at the additional resources:** When it comes to a topic like this, there's always more to learn. You can find the link to these resources by clicking on the Resources tile on the Learning Path.
- **Do a course evaluation:** So please take some time, either before or after you take the final, to fill out a brief evaluation. Your feedback will help us make the course even better.
- **Visit the Discussion Area:** The Discussion Area will be open for two more weeks after the release of Lesson 12.

### Other Courses

If you enjoyed this course, here are a few other online courses you might be interested in:



## Intermediate Java Programming

Deepen your understanding of the Java programming language, and start writing programs that are more sophisticated and professional. Learn how to save data permanently on a disk by writing it to a sequential data file. See how to read the file to get the data back and process it. Organize information using multiple classes in Java's class hierarchy and inheritance. Explore some of the hundreds of classes that are built into the Java language. Find out how to create GUI applications in Java using tools like windows, menus, buttons, text boxes, check boxes, scroll bars, and other GUI tools.

Over the six weeks of this course, you'll build several complete applications that combine these concepts. You'll also use the knowledge you gain to solve programming problems included with the lessons—problems designed to help you master all the principles you learn.

## Introduction to C# Programming

Learn the fundamentals of computer programming with C#, the in-demand and incredibly useful programming language that incorporates the best features of Visual Basic, C++, and Java.

You'll develop your understanding of programming fundamentals: input/output operations, decision making, and looping. Then we'll explore the many benefits of object oriented programming, with plenty of vivid, real-life examples. You'll gain hands-on experience with sequential data files, and you'll be able to build a professional-looking and intuitive Graphical User Interface (GUI) application on your computer.

## Introduction to Python 3 Programming

Enhance your résumé by adding Python to your programming skills! The Python programming language provides a way to develop code that's easy to create and understand. While Python contains the same basic structures as other languages, it also offers unique functionality that makes your life as a programmer easier.

This course will show you how to create basic programming structures including decisions and loops. Then you'll move on to more advanced topics such as object-oriented programming with classes and exceptions. In addition, you'll explore unique Python data structures such as tuples and dictionaries. You'll even learn how to create Python programs with graphic elements that range from simple circles and squares to graphical user interface (GUI) objects like buttons and labels.

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