Teaching Tip

Object-Oriented Programming Principles and the Java Class Library

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ABSTRACT
For novices, learning an object-oriented programming language can be a daunting task. Not only do students need to learn basic programming concepts, but they are also confronted with object modeling concepts as well. Learning Java presents an additional difficulty. Students must learn how to use the Java Class Library to locate the details of classes, methods, and toolkits that they can use in their own classes. One of my primary goals in teaching Java to novices is helping them acquire an understanding of a specific subset of tools in the Java Class Library. This goal is addressed by emphasizing the use of inheritance and a specially designed set of exercises. To demonstrate this approach, this paper will outline the creation of a simple text editor. This example illustrates how considerable functionality can be added to complex programs by using existing classes documented in the Java Class Library.

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