**Up for Discussion**

1. Use an Internet search engine to find at least three definitions of object-oriented programming. (Try searching with and without the hyphen in *object-oriented*.) Compare the definitions and compile them into one “best” definition.

Definitions include the following:

* A programming approach based on the concepts of data abstraction and inheritance. Unlike procedural programming techniques, object-oriented programming concentrates on what data objects comprise the problem and how they are manipulated, not on how something is accomplished.
* Style of programming characterized by the use of separate "objects" to perform different tasks within a program. These "objects" usually consist of an abstract data type or class, along with the methods and procedures used to manipulate that abstract data type.
* A programming methodology built around objects and based on sending messages back and forth between those objects. The basic concepts of object-oriented programming are encapsulation, inheritance, and polymorphism.
* A method for structuring programs as hierarchically organized classes describing the data and operations of objects that may interact with other objects.
* A programming approach in which program construction is done by constructing objects (items and their associated actions) such as in the SmallTalk or ToolBook environments.
* A programming paradigm that treats program elements as objects that have data fields and functions that act on the data fields. The three main characteristics of OOP are encapsulation, inheritance, and polymorphism.
* Computer programming that defines not only the data type of a data structure but also the types of operations/functions that can be applied to the data structure. Thus, the data structure becomes an object that includes both data and functions. Programmers can create relationships between one object and another. For example, objects can inherit characteristics from other objects.
* A style of programming that defines data as objects with attributes and methods that are applied to those objects, and which can be inherited by other objects.
* A revolutionary new way of looking at computer programming. Historically, programs have been viewed as procedures (or we may think of these as "verbs") that operate on data. OOP takes the view that programs should start by thinking about the data (or "nouns") first.
* (OOP) models a system as a set of cooperating objects.
* Object-oriented programming is a way of defining classes and creating instances so that objects respond to messages with methods. One of its major benefits is the encapsulation of code.
* A programming technique that speeds the development of programs and makes them easier to maintain through the re-use of "objects" that have behaviors, characteristics, and relationships associated with them. The objects are organized into collections (also called class libraries) which are then available for building and maintaining applications. Each object is part of a "class" of objects, which are united via "inheritance" and share certain characteristics and relationships.
* In computer science, object-oriented programming, OOP for short, is a computer programming paradigm that emphasizes the following concepts:
* **Objects**. Packaging data and functionality together into units within a running computer program; objects are the basis of modularity and structure in an object-oriented computer program.
* **Abstraction**. The ability for a program to ignore some aspects of the information that it is manipulating, i.e. the ability to focus on the essential.

2. What is the image of the computer programmer in popular culture? Is the image different in books than in TV shows and movies? Would you like a programmer’s image for yourself, and if so, which one?

The programmer is often seen as an anti-social nerd with tape around his glasses, a pocket protector, and the inability to form social relationships. In some movies however, the computer-savvy programmer can save the day. High school aged programmers, in particular, are often portrayed as Robin Hood-type rebels. Movie plots tend to concentrate on “good” programmers versus “evil” programmers. The programmer is virtually always seen as smart.