Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA)..  
While these are sometimes considered programming, often the term software development is used for this larger overall process – with the terms programming, implementation, and coding reserved for the writing and editing of code per se.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
 Computer programmers are those who write computer software.  
Programming languages are essential for software development.  
Integrated development environments (IDEs) aim to integrate all such help.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference.  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
Many applications use a mix of several languages in their construction and use.  
 Code-breaking algorithms have also existed for centuries.  
 Auxiliary tasks accompanying and related to programming include analyzing requirements, testing, debugging (investigating and fixing problems), implementation of build systems, and management of derived artifacts, such as programs' machine code.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.