These compiled languages allow the programmer to write programs in terms that are syntactically richer, and more capable of abstracting the code, making it easy to target varying machine instruction sets via compilation declarations and heuristics..  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
One approach popular for requirements analysis is Use Case analysis.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
 Code-breaking algorithms have also existed for centuries.  
Methods of measuring programming language popularity include: counting the number of job advertisements that mention the language, the number of books sold and courses teaching the language (this overestimates the importance of newer languages), and estimates of the number of existing lines of code written in the language (this underestimates the number of users of business languages such as COBOL).  
Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language.  
For this purpose, algorithms are classified into orders using so-called Big O notation, which expresses resource use, such as execution time or memory consumption, in terms of the size of an input.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
 Debugging is often done with IDEs. Standalone debuggers like GDB are also used, and these often provide less of a visual environment, usually using a command line.