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..  
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.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
 Computer programmers are those who write computer software.  
 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.  
Many programmers use forms of Agile software development where the various stages of formal software development are more integrated together into short cycles that take a few weeks rather than years.  
 Programmable devices have existed for centuries.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
 It is very difficult to determine what are the most popular modern programming languages.  
Techniques like Code refactoring can enhance readability.  
 The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
However, with the concept of the stored-program computer introduced in 1949, both programs and data were stored and manipulated in the same way in computer memory.  
In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.  
 Allen Downey, in his book How To Think Like A Computer Scientist, writes:  
 Many computer languages provide a mechanism to call functions provided by shared libraries.