Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation..  
 The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging).  
 Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications.  
There exist a lot of different approaches for each of those tasks.  
Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability.  
 New languages are generally designed around the syntax of a prior language with new functionality added, (for example C++ adds object-orientation to C, and Java adds memory management and bytecode to C++, but as a result, loses efficiency and the ability for low-level manipulation).  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
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.  
Proficient programming usually requires expertise in several different subjects, including knowledge of the application domain, details of programming languages and generic code libraries, specialized algorithms, and formal logic.  
 Following a consistent programming style often helps readability.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
  
Programmers typically use high-level programming languages that are more easily intelligible to humans than machine code, which is directly executed by the central processing unit.  
Integrated development environments (IDEs) aim to integrate all such help.