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..  
 After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug.  
 Different programming languages support different styles of programming (called programming paradigms).  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
Ideally, the programming language best suited for the task at hand will be selected.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
Some of these factors include:  
 The presentation aspects of this (such as indents, line breaks, color highlighting, and so on) are often handled by the source code editor, but the content aspects reflect the programmer's talent and skills.  
 Programs were mostly entered using punched cards or paper tape.  
 Readability is important because programmers spend the majority of their time reading, trying to understand, reusing and modifying existing source code, rather than writing new source code.  
 The academic field and the engineering practice of computer programming are both largely concerned with discovering and implementing the most efficient algorithms for a given class of problems.  
Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear.  
In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.