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..  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
Ideally, the programming language best suited for the task at hand will be selected.  
Expert programmers are familiar with a variety of well-established algorithms and their respective complexities and use this knowledge to choose algorithms that are best suited to the circumstances.  
 Different programming languages support different styles of programming (called programming paradigms).  
 Code-breaking algorithms have also existed for centuries.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.  
 Programs were mostly entered using punched cards or paper tape.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
For example, when a bug in a compiler can make it crash when parsing some large source file, a simplification of the test case that results in only few lines from the original source file can be sufficient to reproduce the same crash.  
 Following a consistent programming style often helps readability.  
There exist a lot of different approaches for each of those tasks.  
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.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
 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.