Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment..  
Many applications use a mix of several languages in their construction and use.  
Trial-and-error/divide-and-conquer is needed: the programmer will try to remove some parts of the original test case and check if the problem still exists.  
Ideally, the programming language best suited for the task at hand will be selected.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
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.  
For example, COBOL is still strong in corporate data centers often on large mainframe computers, Fortran in engineering applications, scripting languages in Web development, and C in embedded software.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
 Programmable devices have existed for centuries.  
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.  
 Code-breaking algorithms have also existed for centuries.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
 Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.