As early as the 9th century, a programmable music sequencer was invented by the Persian Banu Musa brothers, who described an automated mechanical flute player in the Book of Ingenious Devices..  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
Normally the first step in debugging is to attempt to reproduce the problem.  
 High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware.  
 Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
 Different programming languages support different styles of programming (called programming paradigms).  
 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.  
  
 Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks.  
Techniques like Code refactoring can enhance readability.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
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.  
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.