Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
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.  
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.  
In 1206, the Arab engineer Al-Jazari invented a programmable drum machine where a musical mechanical automaton could be made to play different rhythms and drum patterns, via pegs and cams.  
However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages.  
Trade-offs from this ideal involve finding enough programmers who know the language to build a team, the availability of compilers for that language, and the efficiency with which programs written in a given language execute.  
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.  
Compiling takes the source code from a low-level programming language and converts it into machine code.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
Compiling takes the source code from a low-level programming language and converts it into machine code.  
 Programmable devices have existed for centuries.  
Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
Scripting and breakpointing is also part of this process.  
  
 Computer programming is the process of performing particular computations (or more generally, accomplishing specific computing results), usually by designing and building executable computer programs.  
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.