This can be a non-trivial task, for example as with parallel processes or some unusual software bugs..  
Normally the first step in debugging is to attempt to reproduce the problem.  
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.  
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.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
 Different programming languages support different styles of programming (called programming paradigms).  
While these are sometimes considered programming, often the term software development is used for this larger overall process – with the terms programming, implementation, and coding reserved for the writing and editing of code per se.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.  
 In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
Methods of measuring programming language popularity include: counting the number of job advertisements that mention the language, the number of books sold and courses teaching the language (this overestimates the importance of newer languages), and estimates of the number of existing lines of code written in the language (this underestimates the number of users of business languages such as COBOL).  
 Programs were mostly entered using punched cards or paper tape.  
FORTRAN, the first widely used high-level language to have a functional implementation, came out in 1957, and many other languages were soon developed—in particular, COBOL aimed at commercial data processing, and Lisp for computer research.  
One approach popular for requirements analysis is Use Case analysis.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.