Assembly languages were soon developed that let the programmer specify instruction in a text format (e..g., ADD X, TOTAL), with abbreviations for each operation code and meaningful names for specifying addresses.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
Integrated development environments (IDEs) aim to integrate all such help.  
Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment.  
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.  
The following properties are among the most important:  
  
 In computer programming, readability refers to the ease with which a human reader can comprehend the purpose, control flow, and operation of source code.  
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.  
Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language.  
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.  
 Programmable devices have existed for centuries.  
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.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
 Following a consistent programming style often helps readability.