Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
Ideally, the programming language best suited for the task at hand will be selected.  
To produce machine code, the source code must either be compiled or transpiled.  
Compiling takes the source code from a low-level programming language and converts it into machine code.  
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.  
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.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
 Readability is important because programmers spend the majority of their time reading, trying to understand, reusing and modifying existing source code, rather than writing new source code.  
 The academic field and the engineering practice of computer programming are both largely concerned with discovering and implementing the most efficient algorithms for a given class of problems.  
 It is very difficult to determine what are the most popular modern programming languages.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
 A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).  
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However, readability is more than just programming style.  
Proficient programming thus usually requires expertise in several different subjects, including knowledge of the application domain, specialized algorithms, and formal logic.