The choice of language used is subject to many considerations, such as company policy, suitability to task, availability of third-party packages, or individual preference..  
Ideally, the programming language best suited for the task at hand will be selected.  
 It is very difficult to determine what are the most popular modern programming languages.  
Integrated development environments (IDEs) aim to integrate all such help.  
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.  
 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.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
 Programmable devices have existed for centuries.  
Proficient programming usually requires expertise in several different subjects, including knowledge of the application domain, details of programming languages and generic code libraries, specialized algorithms, and formal logic.  
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.  
  
 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.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
 Code-breaking algorithms have also existed for centuries.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.