Integrated development environments (IDEs) aim to integrate all such help.  
However, while these might be considered part of the programming process, often the term software development is more likely used for this larger overall process – whereas the terms programming, implementation, and coding tend to be focused on the actual writing of code.  
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.  
It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
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 purpose of programming is to find a sequence of instructions that will automate the performance of a task (which can be as complex as an operating system) on a computer, often for solving a given problem.  
Normally the first step in debugging is to attempt to reproduce the problem.  
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.  
Compiling takes the source code from a low-level programming language and converts it into machine code.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
 Allen Downey, in his book How To Think Like A Computer Scientist, writes:  
 Many computer languages provide a mechanism to call functions provided by shared libraries.  
  
 Programs were mostly entered using punched cards or paper tape.  
  
 Computer programming is the process of performing particular computations (or more generally, accomplishing specific computing results), usually by designing and building executable computer programs.