Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability.  
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.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
To produce machine code, the source code must either be compiled or transpiled.  
One approach popular for requirements analysis is Use Case analysis.  
For example, when a bug in a compiler can make it crash when parsing some large source file, a simplification of the test case that results in only few lines from the original source file can be sufficient to reproduce the same crash.  
Also, those involved with software development may at times engage in reverse engineering, which is the practice of seeking to understand an existing program so as to re-implement its function in some way.  
Their jobs usually involve:  
 Although programming has been presented in the media as a somewhat mathematical subject, some research shows that good programmers have strong skills in natural human languages, and that learning to code is similar to learning a foreign language.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
Integrated development environments (IDEs) aim to integrate all such help.  
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.  
  
The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'.  
 Tasks accompanying and related to programming include testing, debugging, source code maintenance, implementation of build systems, and management of derived artifacts, such as the machine code of computer programs.  
Ideally, the programming language best suited for the task at hand will be selected.