It affects the aspects of quality above, including portability, usability and most importantly maintainability.  
A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.  
To produce machine code, the source code must either be compiled or transpiled.  
Use of a static code analysis tool can help detect some possible problems.  
To produce machine code, the source code must either be compiled or transpiled.  
Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability.  
In the 9th century, the Arab mathematician Al-Kindi described a cryptographic algorithm for deciphering encrypted code, in A Manuscript on Deciphering Cryptographic Messages.  
Unreadable code often leads to bugs, inefficiencies, and duplicated code.  
Compiling takes the source code from a low-level programming language and converts it into machine code.  
Integrated development environments (IDEs) aim to integrate all such help.  
For this purpose, algorithms are classified into orders using so-called Big O notation, which expresses resource use, such as execution time or memory consumption, in terms of the size of an input.  
Later a control panel (plug board) added to his 1906 Type I Tabulator allowed it to be programmed for different jobs, and by the late 1940s, unit record equipment such as the IBM 602 and IBM 604, were programmed by control panels in a similar way, as were the first electronic computers.  
When debugging the problem in a GUI, the programmer can try to skip some user interaction from the original problem description and check if remaining actions are sufficient for bugs to appear.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
There exist a lot of different approaches for each of those tasks.