Techniques like Code refactoring can enhance 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. Also, specific user environment and usage history can make it difficult to reproduce the problem. Use of a static code analysis tool can help detect some possible problems. 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. 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. The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging). However, Charles Babbage had already written his first program for the Analytical Engine in 1837. The following properties are among the most important: In computer programming, readability refers to the ease with which a human reader can comprehend the purpose, control flow, and operation of source code. For example, COBOL is still strong in corporate data centers often on large mainframe computers, Fortran in engineering applications, scripting languages in Web development, and C in embedded software. Provided the functions in a library follow the appropriate run-time conventions (e.g., method of passing arguments), then these functions may be written in any other language. Auxiliary tasks accompanying and related to programming include analyzing requirements, testing, debugging (investigating and fixing problems), implementation of build systems, and management of derived artifacts, such as programs' machine code. Programming languages are essential for software development. Code-breaking algorithms have also existed for centuries. After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug. 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. Following a consistent programming style often helps readability. Whatever the approach to development may be, the final program must satisfy some fundamental properties. 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. The following properties are among the most important: In computer programming, readability refers to the ease with which a human reader can comprehend the purpose, control flow, and operation of source code. Also, specific user environment and usage history can make it difficult to reproduce the problem. Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications. One approach popular for requirements analysis is Use Case analysis. Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation. A study found that a few simple readability transformations made code shorter and drastically reduced the time to understand it.