

Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation. Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability. FORTRAN, the first widely used high-level language to have a functional implementation, came out in 1957, and many other languages were soon developed—in particular, COBOL aimed at commercial data processing, and Lisp for computer research. Various visual programming languages have also been developed with the intent to resolve readability concerns by adopting non-traditional approaches to code structure and display. 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. 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. Languages form an approximate spectrum from "low-level" to "high-level"; "low-level" languages are typically more machine-oriented and faster to execute, whereas "high-level" languages are more abstract and easier to use but execute less quickly. Programs were mostly entered using punched cards or paper tape. FORTRAN, the first widely used high-level language to have a functional implementation, came out in 1957, and many other languages were soon developed—in particular, COBOL aimed at commercial data processing, and Lisp for computer research. High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware. Some of these factors include: The presentation aspects of this (such as indents, line breaks, color highlighting, and so on) are often handled by the source code editor, but the content aspects reflect the programmer's talent and skills. Many applications use a mix of several languages in their construction and use. Code-breaking algorithms have also existed for centuries. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. Code-breaking algorithms have also existed for centuries. In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form. Programming languages are essential for software development. Use of a static code analysis tool can help detect some possible problems. Techniques like Code refactoring can enhance readability. FORTRAN, the first widely used high-level language to have a functional implementation, came out in 1957, and many other languages were soon developed—in particular, COBOL aimed at commercial data processing, and Lisp for computer research. It affects the aspects of quality above, including portability, usability and most importantly maintainability. The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA. 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. The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA. Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process.