By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers. Programmable devices have existed for centuries. Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages. The academic field and the engineering practice of computer programming are both largely concerned with discovering and implementing the most efficient algorithms for a given class of problems. 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. This can be a non-trivial task, for example as with parallel processes or some unusual software bugs. Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation. 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. Trial-and-error/divide-and-conquer is needed: the programmer will try to remove some parts of the original test case and check if the problem still exists. However, because an assembly language is little more than a different notation for a machine language, two machines with different instruction sets also have different assembly languages. Programmers typically use high-level programming languages that are more easily intelligible to humans than machine code, which is directly executed by the central processing unit. Code-breaking algorithms have also existed for centuries. 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. It is very difficult to determine what are the most popular modern programming languages. 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. Programs were mostly entered using punched cards or paper tape. Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation. It is usually easier to code in "high-level" languages than in "low-level" ones. 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. Code-breaking algorithms have also existed for centuries. 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. In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form. 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. Many programmers use forms of Agile software development where the various stages of formal software development are more integrated together into short cycles that take a few weeks rather than years. Normally the first step in debugging is to attempt to reproduce the problem.