Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications. Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks. 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. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. This can be a non-trivial task, for example as with parallel processes or some unusual software bugs. The first step in most formal software development processes is requirements analysis, followed by testing to determine value modeling, implementation, and failure elimination (debugging). Integrated development environments (IDEs) aim to integrate all such help. The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'. A similar technique used for database design is Entity-Relationship Modeling (ER Modeling). Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages. 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. 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. In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them. 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 involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. However, readability is more than just programming style. After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug. 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. He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm. The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'. Computer programmers are those who write computer software. Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards. Different programming languages support different styles of programming (called programming paradigms). 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. Use of a static code analysis tool can help detect some possible problems.