Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation. 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. Programmable devices have existed for centuries. However, readability is more than just programming style. Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users. 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). Techniques like Code refactoring can enhance readability. Integrated development environments (IDEs) aim to integrate all such help. Following a consistent programming style often helps readability. A similar technique used for database design is Entity-Relationship Modeling (ER Modeling). The first computer program is generally dated to 1843, when mathematician Ada Lovelace published an algorithm to calculate a sequence of Bernoulli numbers, intended to be carried out by Charles Babbage's Analytical Engine. 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. While these are sometimes considered programming, often the term software development is used for this larger overall process – with the terms programming, implementation, and coding reserved for the writing and editing of code per se. 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. 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. 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. 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. This can be a non-trivial task, for example as with parallel processes or some unusual software bugs. 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. Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages. Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process. Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment. Following a consistent programming style often helps readability. Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.