Programming languages are essential for software development. Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA). 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. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming 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. It involves designing and implementing algorithms, step-by-step specifications of procedures, by writing code in one or more programming languages. It affects the aspects of quality above, including portability, usability and most importantly maintainability. Programs were mostly entered using punched cards or paper tape. In 1206, the Arab engineer Al-Jazari invented a programmable drum machine where a musical mechanical automaton could be made to play different rhythms and drum patterns, via pegs and cams. It is usually easier to code in "high-level" languages than in "low-level" ones. 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. 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. However, Charles Babbage had already written his first program for the Analytical Engine in 1837. 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. Programming languages are essential for software development. Readability is important because programmers spend the majority of their time reading, trying to understand, reusing and modifying existing source code, rather than writing new source code. 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. However, readability is more than just programming style. Also, specific user environment and usage history can make it difficult to reproduce the problem. He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm. Debugging is often done with IDEs. Standalone debuggers like GDB are also used, and these often provide less of a visual environment, usually using a command line. Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks. Expert programmers are familiar with a variety of well-established algorithms and their respective complexities and use this knowledge to choose algorithms that are best suited to the circumstances. Techniques like Code refactoring can enhance readability.