Proficient programming usually requires expertise in several different subjects, including knowledge of the application domain, details of programming languages and generic code libraries, specialized algorithms, and formal logic. He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm. Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users. 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. However, Charles Babbage had already written his first program for the Analytical Engine in 1837. It is usually easier to code in "high-level" languages than in "low-level" ones. There exist a lot of different approaches for each of those tasks. By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers. Unreadable code often leads to bugs, inefficiencies, and duplicated code. Programs were mostly entered using punched cards or paper tape. Normally the first step in debugging is to attempt to reproduce the problem. Ideally, the programming language best suited for the task at hand will be selected. However, Charles Babbage had already written his first program for the Analytical Engine in 1837. 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. Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards. In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form. Programs were mostly entered using punched cards or paper tape. Popular modeling techniques include Object-Oriented Analysis and Design (OOAD) and Model-Driven Architecture (MDA). 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. They are the building blocks for all software, from the simplest applications to the most sophisticated ones. It affects the aspects of quality above, including portability, usability and most importantly maintainability. 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. 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. A similar technique used for database design is Entity-Relationship Modeling (ER Modeling).