

Whatever the approach to development may be, the final program must satisfy some fundamental properties. Sometimes software development is known as software engineering, especially when it employs formal methods or follows an engineering design process. However, Charles Babbage had already written his first program for the Analytical Engine in 1837. 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. Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment. Ideally, the programming language best suited for the task at hand will be selected. In the 1880s, Herman Hollerith invented the concept of storing data in machine-readable form. 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. Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment. Scripting and breakpointing is also part of this process.

Whatever the approach to development may be, the final program must satisfy some fundamental properties. Also, specific user environment and usage history can make it difficult to reproduce the problem. Later a control panel (plug board) added to his 1906 Type I Tabulator allowed it to be programmed for different jobs, and by the late 1940s, unit record equipment such as the IBM 602 and IBM 604, were programmed by control panels in a similar way, as were the first electronic computers. However, with the concept of the stored-program computer introduced in 1949, both programs and data were stored and manipulated in the same way in computer memory. Techniques like Code refactoring can enhance readability. Code-breaking algorithms have also existed for centuries. Techniques like Code refactoring can enhance readability. A similar technique used for database design is Entity-Relationship Modeling (ER Modeling). 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. There are many approaches to the Software development process. 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. Following a consistent programming style often helps readability. Allen Downey, in his book *How To Think Like A Computer Scientist*, writes: Many computer languages provide a mechanism to call functions provided by shared libraries. 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. Implementation techniques include imperative languages (object-oriented or procedural), functional languages, and logic languages.