Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications. A similar technique used for database design is Entity-Relationship Modeling (ER Modeling). Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications. 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. Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users. 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. Use of a static code analysis tool can help detect some possible problems. Programming languages are essential for software development. 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. Computer programmers are those who write computer software. After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug. This can be a non-trivial task, for example as with parallel processes or some unusual software bugs. It is usually easier to code in "high-level" languages than in "low-level" ones. 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. 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. They are the building blocks for all software, from the simplest applications to the most sophisticated ones. Some languages are very popular for particular kinds of applications, while some languages are regularly used to write many different kinds of applications. After the bug is reproduced, the input of the program may need to be simplified to make it easier to debug. 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. High-level languages made the process of developing a program simpler and more understandable, and less bound to the underlying hardware. Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment. The first compiler related tool, the A-0 System, was developed in 1952 by Grace Hopper, who also coined the term 'compiler'. 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. 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. In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.