Integrated development environments (IDEs) aim to integrate all such help. 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. As early as the 9th century, a programmable music sequencer was invented by the Persian Banu Musa brothers, who described an automated mechanical flute player in the Book of Ingenious Devices. Some of these factors include: The presentation aspects of this (such as indents, line breaks, color highlighting, and so on) are often handled by the source code editor, but the content aspects reflect the programmer's talent and skills. By the late 1960s, data storage devices and computer terminals became inexpensive enough that programs could be created by typing directly into the computers. The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA. Some text editors such as Emacs allow GDB to be invoked through them, to provide a visual environment. They are the building blocks for all software, from the simplest applications to the most sophisticated ones. They are the building blocks for all software, from the simplest applications to the most sophisticated ones. Following a consistent programming style often helps readability. The Unified Modeling Language (UML) is a notation used for both the OOAD and 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. Code-breaking algorithms have also existed for centuries. Techniques like Code refactoring can enhance readability. Integrated development environments (IDEs) aim to integrate all such help. Different programming languages support different styles of programming (called programming paradigms). The Unified Modeling Language (UML) is a notation used for both the OOAD and MDA. 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. However, Charles Babbage had already written his first program for the Analytical Engine in 1837. 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. Programming languages are essential for software development. 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. One approach popular for requirements analysis is Use Case analysis. 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. 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.