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.  
Programming involves tasks such as analysis, generating algorithms, profiling algorithms' accuracy and resource consumption, and the implementation of algorithms (usually in a particular programming language, commonly referred to as coding).  
Ideally, the programming language best suited for the task at hand will be selected.  
However, readability is more than just programming style.  
Programming languages are essential for software development.  
They are the building blocks for all software, from the simplest applications to the most sophisticated ones.  
Compiling takes the source code from a low-level programming language and converts it into machine code.  
This can be a non-trivial task, for example as with parallel processes or some unusual software bugs.  
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.  
Some languages are more prone to some kinds of faults because their specification does not require compilers to perform as much checking as other languages.  
However, Charles Babbage had already written his first program for the Analytical Engine in 1837.  
Proficient programming thus usually requires expertise in several different subjects, including knowledge of the application domain, specialized algorithms, and formal logic.  
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Programming involves tasks such as analysis, generating algorithms, profiling algorithms' accuracy and resource consumption, and the implementation of algorithms (usually in a particular programming language, commonly referred to as coding).  
 Computer programmers are those who write computer software.