In 1801, the Jacquard loom could produce entirely different weaves by changing the "program" – a series of pasteboard cards with holes punched in them.  
Integrated development environments (IDEs) aim to integrate all such help.  
Many factors, having little or nothing to do with the ability of the computer to efficiently compile and execute the code, contribute to readability.  
Normally the first step in debugging is to attempt to reproduce the problem.  
One approach popular for requirements analysis is Use Case analysis.  
He gave the first description of cryptanalysis by frequency analysis, the earliest code-breaking algorithm.  
Relatedly, software engineering combines engineering techniques and principles with software development.  
Compiling takes the source code from a low-level programming language and converts it into machine code.  
Compilers harnessed the power of computers to make programming easier by allowing programmers to specify calculations by entering a formula using infix notation.  
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).  
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.  
Techniques like Code refactoring can enhance readability.  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
However, readability is more than just programming style.