Code-breaking algorithms have also existed for centuries..  
 Whatever the approach to development may be, the final program must satisfy some fundamental properties.  
 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.  
It is usually easier to code in "high-level" languages than in "low-level" ones.  
In 1206, the Arab engineer Al-Jazari invented a programmable drum machine where a musical mechanical automaton could be made to play different rhythms and drum patterns, via pegs and cams.  
 Debugging is a very important task in the software development process since having defects in a program can have significant consequences for its users.  
One approach popular for requirements analysis is Use Case analysis.  
Use of a static code analysis tool can help detect some possible problems.  
Text editors were also developed that allowed changes and corrections to be made much more easily than with punched cards.  
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.  
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.  
Techniques like Code refactoring can enhance readability.  
  
 Computer programming or coding is the composition of sequences of instructions, called programs, that computers can follow to perform tasks.  
 Machine code was the language of early programs, written in the instruction set of the particular machine, often in binary notation.  
 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.